

THE AMAZING LED

REFERENCE MANUAL

The Extraordinary Phototherapy Effects of
Using Single Wavelength Monochromatic
Red Color Light-Emitting-Diodes (LEDs)

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Preface

In this reference manual, we will be talking about the use of a very particular type of light called **Light-Emitting Diodes (LEDs)** that can be safely applied to the body.

We want to emphasize that we are not licensed medical doctors. We are neither diagnosing, treating, curing, prescribing, nor preventing any illness or disease. We are not licensed in any medical field, we encourage you to seek or continue using licensed medical help with your problems.

The following described activity was started as a registered minister member in a licensed non-profit church organization¹ in the State of Washington. Many types of healing modalities can be more openly discussed within a church and spiritual structure. We will discuss how you could help yourself by using LED light to supplement your standard medical treatment.

The techniques and results described in this publication represent observations and personal use by thousands of individuals since 1969 when the first patents for LEDs were established in the United States. The first publication of this reference manual started in 1988 when there was very little public awareness of this technology and few techniques to use it. Since then, there has been a significant increase in available products, the number of companies producing them, and the identified medical results.

We do not recommend any specific company or product. Instead, we provide enough information to allow individuals to decide which product they want.

Regardless of the specific products used, this document will provide a wide range of detailed application techniques unavailable elsewhere. These techniques are based upon over 25 years of observation, anecdotal reports, and practical usage, thus providing an excellent reference.

In fact, our involvement with the monochromatic LED light started soon after the first published research data from Dr. Tiina Karu in Russia became available to people in the United States. We have followed and utilized the on-going development and expansion of the LED light protocol as it has continued to provide amazing results with so many medical conditions. **Under no circumstances do we recommend that you should use this information in place of your normal medical treatment. Simply use it as a supplemental procedure. You should always consult with your physician.**

¹ The Aesklepeon of Light Church (Asclepius was the ancient Greco-Roman mythological god of medicine and healing including the use of light).

Introduction

One of those **strange coincidences of history** occurred during the initial development of the Light-Emitting-Diode (LED) technology. The red 660-nanometer wavelength LED was among those selected for use as indicator lights on electronic equipment. The subsequent mass production of the red LED insured that it would be available in quantity for what transpired later.

Further research revealed that this was the **best single wavelength for the stimulation and healing of damaged or abnormal human cell tissue**. There is always synchronicity in the affairs of man. We can thank Dr. Karu for spearheading the research that identified many medical aspects of “The Amazing LED”.

Using LED technology is like having a silver bullet for applying to problems of our body. It cannot be overused and has no identified side effects. It works to activate various systems in the human body that in turn help the body heal itself naturally. **You will be amazed at all the capabilities that can be accomplished using an LED device.**

Among its many applications, it can help alleviate pain, improve the physical condition of problems in your body, and reduce emotional stress and allergy reaction. It can even improve the condition of facial skin wrinkles. The LED can also play an important role in helping to resolve the source causes behind medical conditions.

This reference manual is divided into six parts:

- Part 1: Learning about Light
- Part 2: LED Application Techniques: General and Specific
- Part 3: The Larger Story behind Medical Conditions
- Part 4: Additional Treatment Cross Reference List
- Part 5: Light Therapy Combined with Light Therapy
- Part 6: LED Light Therapy for Alzheimer’s

We want to show you how to easily and effectively use the LED light device. It is really a very simple process to apply it to yourself or others. At the same time, we wish to educate you on several very important topics pertaining to the theory and use of the LED Photo -Therapy concept. You will find these topics imbedded throughout the reference manual.

You can read the entire manual or just go to the section that pertains to your immediate problem using the Table of Contents or the Additional Treatment Cross Reference List (Part 4).

It is now time for you to start learning about LEDs and using your LED phototherapy units.

Part 1:

Learning about Light

Chapter 1 - The Nature and Importance of Light

This reference manual will focus on photo - therapy treatment using **single wavelength monochromatic light**.

To do this effectively we need to understand just what a **single wavelength** is and to do this we need to know what **light** is.

The next few chapters will fill in this necessary understanding.

Along the way, we will also give you some beneficial suggestions about the healing effects of other types of light.

Nature of Light

- Light is more than just brightness. It is all around us, but we can't see it unless it reflects off of something.
- Light is said to be the strongest energy in the universe after love.
- Light exists in the form of waves but can also transform into particles. The energy of light travels along these waveforms, which can be different lengths (wavelengths) and heights/oscillations (frequencies).
- Light is emitted and absorbed in tiny "packets" called photons which exhibit the properties of both waves and particles. This is referred to as wave-particle duality.
- Light is part of the electromagnetic (EM) spectrum.

Electromagnetic Spectrum

The EM spectrum of any object is the range of all possible frequencies of electromagnetic radiation emitted or absorbed by that object.

Generally EM radiation is classified by wavelengths into:

- Radio Waves (longest wavelength)
- Microwaves
- Infrared (perceived as heat - invisible to the eye)
- **Visible Light** (perceived as light)
- Ultraviolet (tanning wavelength - invisible to the eye)
- X-rays
- Gamma Rays (shortest wavelength)

Visible Light

Visible light is that small part of the electromagnetic (EM) wave spectrum that is visible to the human eye and activates the sense of sight in humans.

Visible light has wavelengths in the range of 380 nanometers to 740 nanometers. This range contains all the colors we can see.

Each of these visible colors is not simply a single wavelength but is comprised of a range of wavelengths so that each color is actually a band of color.

Take green for example. Green ranges from 490 nanometers to 560 nanometers. That means that when your eyes see a green light, they actually see 70 different wavelengths that are banded together.

Importance of Light

When you understand the nature of light you have a key to this powerful and universal energy source.

It is crucial to understand how light energy physically interacts with matter (in this case, the matter is our human body). The following chapters will discuss how specific types of light affect human and animal bodies and how light can be utilized to:

- Reduce pain and aid in healing traumatic injuries.
- Help medical problems and support the maintenance of health.

Chapter 2 - Types of Light and Their Effects on Our Body

“LIGHT IS ENERGY”

Sunlight

We all know that light energy in the form of sunlight is essential for all living things. Sunlight is more than just bright light. Its components are best seen when a rainbow is viewed. We see the different visible colors ranging from Violet, Blue, Green, Yellow, Orange, Pink to Red. In addition, we have the Ultraviolet and Infrared colors that your eyes can't see. This is referred to as the full spectrum of sunlight.

Sunlight enters your body through your eyes (98%) and through your skin (2%). Sunlight provides energy to all the cells in your body. This is accomplished when the sun's rays are passed through the eyes, converted by the hypothalamus and other primary glands into electro-chemical energy. This energy is then carried throughout the many distribution systems within the body to reach each and every cell.

Human bodies need from 30 minutes to 2 hours of sunlight a day to maintain good health. Less than this amount is labeled “light malnutrition or light starvation” and often results in a condition called SAD.

SAD (Seasonal Affective Disorder)

SAD is a condition characterized by low energy, irritation, and depression. SAD often happens during the winter months when very little natural sunlight is available and the weather keeps people indoors (especially in colder climates and higher latitudes – northern and southern).

Regular exposure to concentrated “dosages” of specific wavelengths of light has been proven to help alleviate this condition (see Full Spectrum Light below).

Artificial Light

Artificial light can and does produce negative energy detrimental to your body. When you are indoors, you are not only deprived of natural sunlight, you are actually subjected to irritating and harmful artificially produced light from incandescent, halogen and standard fluorescent light bulbs.

These bulbs produce, essentially, a yellow-based color that irritates the nerve endings, creates glare, stresses your body and impairs the immune system. In addition, the standard fluorescent light, operating at a 60-hertz pulse rate (from magnetic ballasts), creates more radiation, flicker rates and related negative effects on the body.

These detrimental effects can be eliminated by switching the fluorescent ballast in the fixture from magnetic to electronic and by replacing fluorescent tubes and all screw-in bulbs with full spectrum bulbs (see Full Spectrum below). The newer mandated T8 thin fluorescent tubes all come standard with electronic ballasts.

Newly developed white light-emitting-diode (LED) bulbs will also negate some of these effects. The price of these bulbs will continue to become more affordable as they become the standard lighting in homes.

Full Spectrum Light

The development of a better fluorescent light tube helped eliminate some of the artificial light problems and at the same time helped the lack of sunlight situation. Compact Fluorescent Light (CFL) bulbs also replaced the incandescent bulbs.

When a wider range of phosphors is added to the bulbs, the resulting light simulates the full spectrum of sunlight. Now humans and animals can get a form of indoor sunlight to help their bodies get the minimum light energy necessary for good health.

Early morning exposure regulates the body clock by stopping the nightly production of melatonin and starting the daylight production of serotonin. Non-full spectrum bright white light (10000 Lumens) also creates this effect.

About 6 hours of full spectrum light during the day equals the minimum ½ hour of outdoor sunlight. The increased pulse rate (25000 hertz) of the electronic ballasts eliminates the flicker and significantly reduces the negative radiation. When the ability to create a full spectrum version of the new LED light bulb occurs, then using fluorescent technology to create full spectrum can end.

Colored Light

Over the years, the use of artificial colored light as a therapeutic aid has been successful. However, it is generally a slow process, and does not always produce consistent results in tissue healing. Some of the reasons for this are:

- The colored lights that were used actually consisted of multiple wavelengths grouped together into a bandwidth. These broad bandwidth lights do not penetrate very far into the tissue.
- The colored light energy affects primarily the emotional energy field around the body (often referred to as the Aura) and the energy filters down slowly into the body to create the resulting improvements.
- The emotional state of the person at the time can influence the consistency of the treatment.

For example, if you place a red coating or filter over a white incandescent bulb and analyze the light produced scientifically, it actually shows that many wavelengths of red are detected plus traces of blue, yellow, orange, and green.

The use of Colored Light Therapy is still very effective for treating emotional problems, but there is a better way to use light for healing and pain relief.

Monochromatic Single Wavelength Light

As technology has progressed, the capability to produce a discrete single wavelength was developed. Initially, this was accomplished with a LASER and later with a LIGHT-EMITTING-DIODE (LED). Please see Chapter 3. Single wavelength light is often referred to as Monochromatic Light.

The impact of this type of light is to allow deeper penetration into the body's tissue and to interact directly with the individual cell (see Chapter 4), rather than via the body's energy field (Aura). This results in a faster cellular response, which translates into a rapid increase in the cell's innate (own) healing cycle.

It is important to know and remember –

- If a cell is, in any way damaged, diseased, mutated or aberrant, the LED (light emitting diode) generated monochromatic light will aid it in healing at an accelerated rate and reduce pain.
- If the cell is healthy, nothing will happen.
- LED generated monochromatic light appears, after decades of usage and study, to have NO contraindications.
- The LED light cannot be overused and it has NO negative side effects.

Chapter 3 - Single Wave Length Light: LEDs and Lasers

As we mentioned in the previous chapter, single wavelength monochromatic light has amazing effects on damaged or diseased cell tissue (See chapter 4).

The only feasible way to produce a discrete single wavelength light beam is with either a **Laser** or a **Light-Emitting-Diode (LED)**.

What is a LASER?

- **LASER** is an acronym for **L**ight **A**mplification by **S**timulated **E**mission of **R**adiation
- A laser is a device that emits light through a process of optical amplification based upon the simulated emission of photons. The emitted laser light is notable for its high degree of spatial **coherence**, which is not attainable using other technologies.
- Spatial coherence means that the output of the laser is a very narrow beam (often called a “pencil beam”) focused to a tiny spot and having a bright radiance.
- It remains a narrow beam of light regardless of the distance it travels. Think of laser light as highly focused, powerful and perfectly phased light.
- Therefore, the laser produces a **single wavelength and coherent light beam**. In the 1960s, when research using the single wavelength monochromatic light was developing, the only way to produce it was with laser technology. As a result, the majority of the research at that time dealt with the use of what are referred to as low power, cold or soft lasers.
- When applying a laser light to the body, the power of the light beam must be low enough to not damage the tissue.
- A low-power laser differs from normal high-energy lasers in that the amount of light and energy generated in the low-power laser is very weak.
- Soft lasers create relatively weak stimulation of the cells, whereas high-energy lasers can destroy the cells, as in laser surgery.
- Even soft lasers can pose a risk to health if not used properly. They should not be used in or around the eyes (actually above the shoulders) and they can often be overly applied.

What is a Light-Emitting-Diode (LED)?

- A **Light-Emitting-Diode (LED)** is a semi-conductor (solid state chip) light source.
- It produces a **single wavelength** of light just like a laser. The important difference is that the light beam is **non-coherent** light.
- Non-coherent means that the light beam does not remain tightly focused. Rather it gets wider (disperses) the further away you shine the light beam. You can think of it as non-phased light.

- When the LEDs are turned on, energy is released in the form of photons.
- This effect is called electroluminescence and the color of the light is determined by the construction and material of the metal center (chip) of the LED.
- The LED started out in the 1960s as simple indicator lamps in electronic equipment and devices.
- LEDs have undergone dramatic changes. As technology has improved, LEDs have changed from emitting low intensity red light (20 millicandles of light) to today's ultra-bright LED (5,000 - 15000 millicandles) and many other unique wavelengths of all colors.
- Today the LEDs are used in display signs, light bulbs and as a medical device.
- LEDs provide a safe, less costly, longer lasting and more readily available alternative to the low power soft laser. An LED generally produces about the same results as a soft laser without the potential problems.
- Today more and more research, using LEDs instead of soft lasers, is being published.
- The majority of soft laser research is also directly applicable to the use of LED.

Why use LEDs instead of Lasers?

- At the beginning of photo - therapy research, it was thought that the light beam had to be both a single wavelength and coherent.
- Therefore, a soft laser was originally considered to be required.
- It was determined by Tiina Karu, as far back as the early 1980s that the cellular activation was due **totally to the effect of the single wavelength (monochromatic) light beam and not affected by the coherency of the light.**
- Since the coherent nature of a laser was no longer important or necessary for cell activation (healing), then the non-coherent LED could be just as effective as the laser while at the same time presenting fewer problems.
- The LED is less expensive, and easier to use.
- The LED is also smaller, lasts longer, and is not dangerous to the eye or any other part of the body. It uses non-coherent light rather than the laser's coherent light, so there is no way that tissue can be damaged. You cannot overuse a LED and there are no known side effects.
- Anyone can use a LED device; they pose no safety hazards or restrictions.
- The Food and Drug Administration has approved the use of low wattage lasers to be used by a physician or licensed practitioner, as long as they warn the patient of the experimental nature of the device. The FDA has approved some LED devices for use on the human body; however, the FDA still restricts the claims that can be made.
- Based upon research and observed results, we feel that the use of the **LED light produces effects that are equal to the low power laser effects - and in many applications it is superior.**
Sometimes a LED device can be used when lasers cannot. Treating the eyes is an example of this.

These facts demonstrate the reasons for using LED light devices to help with your physical, mental and emotional problems.

Chapter 4 - How LEDs Affect the Cellular Tissue

General Concept

We have now arrived at the point of discussing how this monochromatic single wavelength of light performs its wonderful effect on the cells of the body.

In the most simplistic sense, a photo - therapy unit acts as a remote control device. It produces a single wavelength light to activate the normal healing mechanism within damaged, diseased or abnormal cell tissue.

There is a three-step process involved:

- First, the light beam physically activates the cell.
- Then, the cell's normal repair process is triggered.
- Finally, the cell's regeneration rate is accelerated.

Another amazing aspect is that the cellular response will automatically cease when the cell has completed healing or is no longer abnormal. This means that you cannot overuse the light.

This also means that the light will not stimulate any healthy cell tissue in the surrounding area because healthy cells will simply not respond! Again, this is another safety reason for using non-coherent LEDs rather than coherent low power lasers.

A pulsing light beam accelerates the cellular regeneration while a continuous light beam promotes pain relief.

No matter what setting you use or how long you use it, you can never do anything wrong. Also, there has been no evidence of any side effects from the use of the light. Our cells are miraculous!

Remote Control Analogy (physical activation)

The phototherapy unit is similar to the remote control for your TV. They both produce a single wavelength of light.

The TV remote uses an infrared wavelength that is invisible to your eye while the phototherapy unit uses a visible red wavelength.

The TV set contains an electronic sensor (receptor) that responds only to the specific single wavelength in the remote.

When the receptor in a TV set that is in the off mode, detects the light from the remote control, it signals (opens) an electronic circuit, the electric power flows and the TV screen comes on.

Similarly, the cell tissue in our body contains the same type of biological sensors called receptor proteins. When these receptors in a damaged cell (like a TV that is off) detect the single wave light from your phototherapy unit, it signals the cell to restart (open the biological circuit), allows the energy to flow, and the cell is activated to proceed with its normal healing process.

When you try to activate cells that are already healthy, nothing happens. It is the same as trying to turn on a TV set that is already on, nothing happens. Phototherapy units only activate cells that are damaged!

The Three-Step Process

- Let's take a closer look into how this process takes place.
- The LED phototherapy unit acts as a remote control unit for the cells using monochromatic single frequency light. The cells respond to a single wavelength, but do not respond when more than one wavelength is involved.
- The pulse settings on the phototherapy unit activate cell repair while the continuous setting reduces pain.
- The light penetrates deep into the body's tissue
- Photoreceptor proteins on the outside of each cell's membrane sense the monochromatic light beam.
- If the cell is healthy, there is no response from the photoreceptors.
- If the cell is damaged, diseased or abnormal and is in need of repair, the external photoreceptor proteins will now react and communicate (signal) with effector proteins on the internal side of the cell's membrane.
- The effector proteins will then carry the signal message within the cell to activate the cell's normal repair/replication process. This means stimulating DNA and activating the genes to produce proteins.
- Depending on the nature of the cell's problem only those specific genes, that contain the necessary proteins required, are activated.
- The cell already knows what is required (proteins, elastin, and collagen) to repair its specific damaged part (organelle).
- The phototherapy light has effectively jump-started the cell's repair and reproduction mechanism. The cell will now produce healthier replacement cells when the cell is later reproduced.
- Continuing the light application or repeating it occasionally will supply additional energy to keep the cell repair process moving rapidly.

- The cell's membrane will also allow ejection of any toxins produced as a result of the cell repair process.
- Once the cell's problems are corrected, the membrane's receptor proteins will no longer respond to the phototherapy LED light. Therefore, there is no way to overuse the light or stimulate an area that is not damaged.
- Simply put: the external environmental signal (**light**) is detected by the regulatory proteins (**receptors/effectors**) which activate **DNA** (genes) / RNA to produce **proteins** which **heal** the damaged cell parts (organelles), and then the repaired cell no longer responds to the external signal (light).

Note: The membrane acts as the brain of the cell (hence membrane). Research has demonstrated that when the nucleus of the cell is removed the cell continues with reduced functioning. But, when the membrane is removed, the cell quits functioning and the cell dies. The membrane makes the decisions for the cells.

Note: The use of the monochromatic light has produced no known side effects. It does not cause any tissue damage and it cannot be over applied. At times, a temporary minor increase in discomfort may occur with chronic conditions. This has been noted as an indicator of tissue reactivation, or detoxification, and precedes improvement. Also subtle warmth may be detected during treatment. This is an indication that cell improvement is occurring. As the cell heals, it detoxifies by expunging toxins from within the cell through the membrane. The body then directs more blood to the area, to remove the toxins, resulting in the subtle feeling of warmth due to increased blood flow.

Intermission Pause

The above part of this chapter is meant to allow the reader to more easily grasp the concept of how the light affects cellular tissue.

The following portion of this chapter provides the reader with additional brief medical and scientific detail about the cell and a reference to those individuals contributing to our knowledge of the Monochromatic Light Therapy concept and mechanism.

Cells

Cells are a miniature microcosm of man. They have organs within a protective skin. They have a brain, can interact with their environment, make decisions, accomplish tasks, repair and reproduce themselves. The following information about cells might help you understand a little bit more about them.

Cell Structure

Visualize a “typical” cell as a round circle. The outside of the circle is called the membrane. The membrane encloses the inner workings of the cell. This is similar to our body’s skin encompassing our internal organs. There are about 100 trillion cells in our body grouped together into different organs and functions.

Cell Membrane

The membrane contains proteins called Integral Membrane Proteins (IMP). Two important types are called receptor proteins and effector proteins. The receptor IMPs are the cell’s sense organs, the equivalent of our eyes, ears, nose, taste buds, etc.

Receptors function as individual molecular mini “Nano-antennas”, each tuned to respond to specific environmental signals. Some of these receptor proteins extend from the cell’s outer surface, monitoring external signals.

In addition to responding to physical signals, receptor “antennas” can read vibrational energy fields such as light, sound, radio frequencies and thought (see Part 3 of this manual)².

The receptor proteins provide an awareness and reaction to environmental signals, but the need also exists to create a life-sustaining response to the inner functions of the cell. This is the task of the effector proteins. Taken together the receptor-effector proteins provide a stimulus-response mechanism.

Inner Cell

Cells are made up of four types of large molecules: complex sugars, fats, nucleic acids (DNA/RNA), and proteins.

Most of the cell’s structures are referred to as organelles, which are “miniature organs” suspended within a jelly-like cytoplasm. They include the nucleus and the mitochondria.

Hereditary information is passed on via chromosomes, which are used when a cell divides into replacement cells. The chromosomes are incorporated in the nucleus. Genes are found on chromosomes. Chromosomes are singular pieces of DNA, which contain many genes, regulatory elements and other nucleotide sequences. The chromosomes contain two types of molecules – DNA and protein.

² Thoughts are also vibrational energy fields, which may help us to understand more about how “healing your cells” by “healing with your mind” might actually be physically accomplished. Also see Part 3 of this manual.

DNA, (deoxyribonucleic acid) is a nucleic acid that carries the genetic information in the cell and is capable of self-replication and synthesis into a very similar molecule called RNA (ribonucleic acid). When a gene is read by a cell the DNA sequence is copied into the RNA.

DNA consists of two long chains of repeating units twisted into a double helix and joined by hydrogen bonds. These units are four types of nucleotides: adenine, thymine, cytosine, and guanine (A, T, C, and G). The sequence of nucleotides stores information in an alphabet called the genetic code and determines individual hereditary characteristics.

A gene is the molecular unit of heredity of a living organism. It is a name given to some stretches of DNA and RNA. These stretches are really “codes” for either a type of protein or for an RNA chain section that has a function in the organism. Living beings depend on genes, as they specify all proteins and functional RNA chains. Genes hold the information to build and maintain an organism's cells and pass genetic traits to offspring.

Some organelles (e.g. mitochondria) are self-replicating and do not require coding by the organism's DNA.

The function of genes is to provide the information needed to make the proteins in cells. **Genes give the instructions and the proteins carry out the instructions, tasks like creating a new cell or repairing an existing damaged, diseased or abnormal cell!** Genes tell cells what to do by telling them which proteins to make and in what amounts. Genes are expressed by being transcribed into RNA, and this RNA is then translated into proteins.

A protein is any of a group of complex organic macromolecules that contain carbon, hydrogen, oxygen, nitrogen, and usually sulfur and are composed of one or more chains of amino acids. Proteins are made of a chain of 20 different types of amino acid molecules. Proteins are fundamental components of all living cells and include many substances, such as enzymes, hormones, and antibodies that are necessary for the proper functioning of an organism. They are essential for the growth and repair of tissue.

Significant Individuals

Although there are several theories circulating about the actual mechanism of light activation and subsequent healing, there is really no question that accelerated healing and pain relief do occur! We recommend that you look into the work of three people. Dr. Tiina Karu is considered the discoverer and primary researcher of this concept. Dr. Harry Whelan has done considerable research. They both have done many studies on medical conditions and both have their theories about the mechanism involved. However, Dr. Bruce Lipton, who never really addressed light activation directly, seems to have the best explanation of appropriate cellular response and functioning. You can easily browse the Internet for these and other practitioners who have contributed to our current knowledge of monochromatic single wave photo - therapy.

Dr. Tiina Karu

The earliest identification and explanation of the cellular mechanism involved was provided by Dr. Tiina Karu's medical work in Russia that appeared in the mid-1980s. Her work also disclosed that this amazing healing effect of monochromatic light could be accomplished with non-coherent LED light as effectively as using low-power coherent lasers!

The research conclusions in her study in 1989³ included:

1. Laser bio-stimulation is a photo biological phenomenon.
2. Coherent light is not needed.
3. Primary photo accepters are components of the respiratory chain.
4. The respiratory chain components can be the photoreceptors in the case of cellular metabolism stimulation, as well as inhibition, depending upon the dose of light.
5. At low doses, irradiation causes redox regulation of cellular metabolism; at high doses photodynamic damage prevails.
6. (Editor's note: this is one of the reasons why LEDs are safer than low power lasers – they never produce a higher dose of light!)
7. Light Quantum is only a trigger for cellular metabolism regulation. This explains the low doses and intensities needed.
8. The magnitude of the bio-stimulation effect depends on the physiological state of the cell before irradiation. This explains why the bio-stimulation effect is not always possible.
9. (Editor's note: the cell has to be viable (alive) even if it is damaged, diseased or abnormal)
10. The therapeutic effects of low-power irradiation can be explained by an increase of proliferation of G0 and G1 cells or by changes in the physiological activity of excitable cells.

See her web site at www.isan.troitsk.ru/dls/karu.html for significant information and browse the internet for Tiina Karu's research studies.

Dr. Harry Whelan

Dr. Whelan's research took place at the Medical College of Wisconsin.

He thinks LED technology works by delivering photons to cytochromes in the cell's mitochondria. Cytochromes are light sensitive organelles that act as an electron transport chain, converting energy derived from the oxidation of glucose into adenosine triphosphate, the mitochondria's fuel. By directly stimulating cytochromes with light, more fuel is pumped into the mitochondria and thus throughout the cells, ultimately speeding up healing.

³ Photobiology of Low-Power Laser Effects, Tiina Karu. Health Physics 56(5) p 691-704 1989. Abstract - Quantities studies have been performed to determine the action of low- intensity visible monochromatic light on various cells.

You can review his work at www.mcw.edu/neurology/facult/harrywhalen.htm

Dr. Bruce Lipton PhD

Dr. Bruce Lipton's book *The Biology of Belief* sheds excellent insight into the proposed mechanism of cellular functioning. Many of the explanations in this manual are the result of his information.

He talks about how cells reproduce and repair themselves by exposure to their environmental circumstances as well as by heredity factors. The receptors/effectors on the cell membrane are the key to this exposure.

Bruce believes that the environmental signals work through the regulatory proteins (receptors/ effectors) to the DNA to the RNA to the protein functions (proteins are referred to as the molecular building blocks that provide for the cells structure).

You can also review his information at www.drbruce-lipton.com

Additional Interesting Observations

In addition, the DNA in the cell appears to respond much more quickly to a single frequency of light than to natural sunlight, which contains all the color frequencies. It seems that the DNA, when it is deprived or overloaded with energy would prefer to communicate or respond to only one frequency at a time, much like your wanting to talk to one person at a time rather than simultaneously with many people.

It is also extremely interesting to note that:

1. The sun is the source of life-activating energy to the earth and to man.
2. The sun has a major pulsation of energy, observed in 11-year cycles called the sun spot cycle.
3. The 11-year cycle at the cosmos level of sun is equivalent to 250 cycles per second at the cosmos level of man⁴.
4. The healing pulse rate of 250/266 cycles per second of the LED light provides the same life-activating energy rate that repairs our cells at the next lower cellular cosmos level below man!
- 5. The pulsing rate of the LED light is in a very real sense providing the same pulsing action to the next lower level of life: the cell; as the sun provides to man!**
6. Amazing – as above, so below.

⁴ Refer to this must read book entitled *The Theory of Celestial Influence* by Rodney Collin, ref. 23, bottom of page 68, original 1968

Chapter 5 - Selecting a LED Phototherapy Device

In today's world, there are many LED light therapy devices in the marketplace. They all tout their various attributes and claims. This makes it confusing to the person trying to select a LED photo - therapy unit. Our work with LED photo - therapy devices for over 25 years has provided certain knowledge that we feel will help you in making this decision process.

Overview

To begin with, LED photo - therapy devices will generally fall into two size categories - larger units and smaller units.

A larger unit usually has greater than 13 LEDs. The advantages & disadvantages are:

- Usually needs AC to DC power adaptor that plugs into your house power outlet.
- Covers a larger area without moving the unit around
- Some units can be attached to the body – usually made of soft material
- Hand held units are usually harder plastic material
- Effectively penetrates 1 to 8 inches into the tissue
- (The 8-inch depth is achieved if the LED bulb pattern is correct)
- Can be held up to 12 inches away from the body and still penetrate deeply

A smaller unit contains 1- 5 LEDs. The advantages & disadvantages are:

- It is normally battery operated
- Covers a smaller area – has to be moved around to cover a large problem area
- Effectively penetrates 1 to 2 inches into the tissue
- Can be held up to 6 inches away from the body and still penetrate
- Good for applying pressure for acupressure and reflexology applications
- Highly portable – easy to carry around in your pocket or purse

Since there are distinct advantages and disadvantages with both types of devices, it is desirable to have each type if possible. Otherwise, choose the type that will take care of the majority of your problem conditions.

Summary of Recommended Major Functions

There are major functions of a LED light unit that are important to take into consideration, regardless of which size light device you are considering. For this discussion, we're summarizing the recommendations first. For more detail an item number is provided that references you to the subsequent

section entitled Further Information on the LED Device Major Functions. You will read why these recommendations were selected and what alternate functions are available.

- Make sure that the Phototherapy light unit you are evaluating is an LED unit and not a low power laser unit (see chapter 3).
- Don't mix colors in your LED Light Unit! Always use one wavelength only - never mix LED wavelengths at the same time.
- LED light phototherapy is based upon cellular response to a single wavelength of light. Multiple wavelengths, at the same time, impact the cellular receptors in the same way that different radio stations, played at the same time from multiple radios, affect your ability to comprehend what is being broadcast! It is chaos and confusion to your ears. The cell's receptors are equivalent to our ears!
- Use a LED wavelength (660 nm) in the mid-red color range (item 1 below). This is the most effective and commonly used wavelength.
- The brightness of each LED is in the range of 5000 – 9000 millicandles (item 2).
- Each LED power rating is in the range of 30 – 50 milli-watts (item 2)
- The electric power within the LED Device should always be DC (direct current) and never be AC (alternating current), which produces electromagnetic radiation. LED devices requiring plug-in electric power should use an AC to DC Adaptor.
- Always have an odd number of total LEDs used in the LED Device (item 3).
- Preferably have a prime number of LEDs (Item 3).
- The operational options should include at least a continuous (non-pulsed) mode and one or more pulsed modes. Preferably have a slow pulse rate of 250-270 hertz (pulses per second) and a much higher pulse. Avoid the complexity and confusion of too many pulse options. They are not all necessary (item 4).
- Smaller Light devices generally have effective penetration of around 1 to 2 inches. The effective penetration of the larger units (1-8 inches) can vary considerably depending upon the configuration of the LEDs. Refer to item 5 below for aid in making product decisions.
- LEDs last for 100,000 hours (about 80 years of average use).
- So don't worry about the lights wearing out.
- Smaller Led devices should cost about \$100 - \$400.
- Larger units should cost less than \$800.

Any cost above these levels means they are overpriced for their fundamental functions (pain relief and accelerated healing) or they contain other functions (bells and whistles) that are not generally necessary. You have to evaluate if the extra bells and whistles are worth the increased price (item 6).

Further Information on LED Device Major Functions

1. Wavelengths and Colors

The color of a LED is determined by its wavelength; designated in nanometers (nm). Each color spectrum consists of a range of wavelengths. Usually only a few specific LEDs wavelengths are available within each color band.

Red wavelengths of 630, 660 and 670 nanometers are the most commonly used. Infrared wavelengths at 880, 940 and 950 nanometers are also used.

Infrared is invisible to the naked eye because it is in the heat range. There is a general and mistaken view that infrared is red. We associate red with infrared heating lamps. In that case the bulbs actually are colored red. There are other specific wavelengths, in each of the other color bands, but they are not as widely used. Green and Blue LED light units appear on occasion.

Our preference is the 660 nm red wavelength because of its compatibility with the cells of the body. There are several reasons why this particular wavelength is so effective.

The wavelength emitted by healthy cells averages between 600 nm and 725 nm, whereas unhealthy cells emit a shorter wavelength. The 660 nm red light is in the middle of the healthy cell wavelength range and therefore appears to be in closer harmony with the cell. This could explain why infrared frequencies that penetrate physically (not effectively) deeper into the tissue, still have slower healing times than the red light.

2. Brightness

The LED light should also be as bright as possible to penetrate deeply into the tissue. The brighter the light, the more biologically effective it will be.

The brightness should be between 5,000 millicandles and 9,000 millicandles. Strangely, the effectiveness seems to level off or decrease above 10,000 millicandles. A milli-candle is a unit of measure of brightness. Increasing the standard internal voltage across the LED chip can enhance brightness. At the same time it increases the milli-watts of power generated.

3. Number of LEDs

An even number of LEDs creates a balanced energy field. This has a tendency to produce a static effect or homeostasis, which is a relatively stable state of equilibrium and not conducive to healing.

An odd number of LEDs creates an unbalanced energy field. This produces a momentum that overcomes cellular inertia and results in the dynamic effect that we want which, in turn, will precipitate the accelerated healing results.

Experience has shown that using a prime number of LEDs is the most dynamic and effective. A prime number is a number that is divisible only by itself or 1 (e.g. 1, 3, 5, 7, 11, 13, 17, 19, 23, etc.).

4. Modes of Operation

The LED light device should be able to select either a continuous or a pulse beam option.

The steady continuous beam of light is important in order to sedate a problem area, relax tissue and reduce pain.

There should be one or more pulsed settings to accelerate tissue regeneration and healing.

The basic pulse rate should be in the range of 250 to 270 cycles per second. This is the rate that is most compatible with the body's nervous system. It is a harmonic of the body's nerve pulsing rate.

Additional pulsing rates can be included.

There are many theories on using different pulse rates. We have found that regardless of possible stated potential benefits, using too many frequency (pulsing) options can be highly confusing to the user and really does not add to the basic effectiveness of the treatment!

However, we feel that a fast pulse rate over 15,000 cycles per second provides a very effective option to use with nerve and brain tissue as well as dealing with mutated cells.

You will not be able to see any of these pulse rates since your eye can only see about 45 cycles per second. However, if you move the light rapidly from side to side, you can distinguish the pulses up to several hundred pulses per second.

The light trace will appear as a broken line image (you will see dashes and spaces).

5. LED Configuration and Penetration

There are several factors that determine the potential depth of penetration of LED light into the body's tissue.

First of all, the physically measured depth is basic to the wavelength of the color. Blue has the least depth and infrared is the deepest. The laws of physics state that light can only penetrate so far into the tissue.

This ignores the fact that the light rays bounce off the water contained within the body tissue. This scatters the rays even deeper, while also affecting the surrounding cells.

On the other hand, it has also been determined that areas located much deeper in the tissue can be seen physically responding when LED light is applied.

This is referred to as the “**effective depth**” of light penetration.

Results have verified that the effective depth of LED light penetration reaches up to 8 inches.

The main factors that contribute to the penetration depth are:

- LED wavelength
- LED brightness
- The number of LEDs
- Most importantly: the design of the actual configuration of the LEDs on the unit.

This means arranging the LEDs, on the larger LED light units, into unique patterns.

The unique patterns involve:

- The number of LEDs
- Their spacing in relationship to each other
- The overall geometry of the light pattern.

LEDs spaced too closely together can act like different confusing wavelengths to the cell. Certain geometrical patterns can project the light energy like a holographic image.

If the LED unit you are looking at utilizes these special patterns, it will state this fact.

Note that all LED Light Units will penetrate through clothes, while the larger units, with correct LED patterns, will also penetrate the skull.

6. Cost

There are a number of LED light devices available on the market today, ranging in price from \$100 to \$8,000. Basic LED photo - therapy units, with the recommended functions described above, will accomplish the primary purpose of pain relief and healing. These basic units cost in the range of a few hundred dollars for small units to a maximum of \$800 for larger units. Anything over that is overpriced or the units have more functions incorporated. The additional features aren't always valid, necessary or desired.

When it comes down to applying the LED light for a specific purpose; when you know exactly what you want to accomplish; then any of the LED devices, which contain the recommended functions described above, are essentially the same.

So our advice to the average person is obtain a relatively lower cost small or large LED unit first, and then later acquire a machine with more functions, if that interests you. Practitioners such as acupuncturists, chiropractors, naturopaths, massage therapists, doctors and dentists can make better use of the more extensive and expensive units.

There may still be one of our previous products available called the Light Disc located with Charles at 517-927-0983. It meets all the requirements outlined in chapter 5 as well as there may be a unit for Alzheimer's (see Part 6).



Part 2:

LED Application Techniques

Chapter 6 - General Application Techniques

Now that you have read and learned about light in part 1 of this reference manual, it is time to learn how to treat physical, mental and emotional problems using LED light units.

This chapter discusses the several **general methods, of applying LED light units to any problem condition**. Each method is described in further detail in chapters 7 through 13.

Application techniques for specific problem conditions are discussed in chapters 14 to 33.

You became aware of the advantages and disadvantages of smaller and larger LED light units in chapter 5. For this discussion, presume that you have both types of phototherapy units available with both a continuous setting and with one or more pulse settings.

General Application Procedure

1. Identify the problem condition and the area of the body that you want to treat.

Usually you have already identified the problem condition. If you are not sure what your problem is, consult your doctor or practitioner.

Another method of diagnosis is to use **applied kinesiology** (muscle testing and pendulum) to gain insight into the nature of your problem (chapter 13).

Often the area where the symptoms exist is not the location of the root cause. An example would be an injury to the spine that results in pain in your leg.

2. Which LED photo - therapy unit you should use will be determined by the size of the problem area and the depth at which the problem is located.

A large LED light unit simply covers a larger area and penetrates deeper than small units.

Small units will have to be moved around more to cover the same area. They might also require using some of the other types of general application methods discussed below.

Determine if your LED light unit can penetrate deep enough to reach the problem area. The **effective depth of penetration** (chapter 5) depends upon the size of the unit:

- The single LED light units effectively penetrate about 1 inch
- The 3 and 5 LED units effectively penetrate about 2-3 inches

- Larger LED phototherapy units (more than 15 LEDs) effectively penetrate about 6-8 inches (if the correct LED light pattern is used).

These effective penetration depths remain the same regardless of whether you hold the light directly on the skin or if you hold it away from the skin: Up to 6 inches (for the small units) or 12 to 15 inches (for the larger units).

3. Do you want to relieve pain or do you want to heal the problem?

Select the **continuous** setting mode if you want to relieve pain, reduce swelling or inflammation, stop itching, sedate an area, or relax muscle tension (chapter 7).

Select the **pulse** setting mode if you wish to accelerate the regeneration (healing) of diseased or damaged tissue or for stimulation of an area. Generally you use a **faster pulse** rate for nerve, brain or mutated cells. Otherwise, you use the **slower pulse** setting for everything else (chapter 8).

Use only one mode type (pain relief or healing) per each treatment time. You can use a different mode for the next treatment time if desired. It is also a good idea to alleviate pain before starting on healing.

4. How do you apply the LED light?

The majority of applications are made by **direct penetration** (chapter 9).

Another great approach is to apply the light unit to **acupressure points, meridians, tapping, and trigger points** (chapter 10).

Also **reflexology points** can be effectively utilized (chapter 11).

You can use these last two methods in conjunction with the direct penetration method. They also provide effective techniques if you only have a smaller LED light unit, and need to penetrate deeper than it normally does.

Using the LED light unit and water to prepare homeopathic remedies allows the effects of the light to keep on working long after you are done applying it (chapter 12).

Finally, additional treatment protocol can be readily obtained by using **applied kinesiology** techniques (chapter 13).

The length of time you apply the LED light depends on which of these individual application methods you are using. Generally speaking, you cannot overuse the light although several treatments during the day of 10-15 minutes each is reasonable.

Chapter 7 - Reducing Pain, Muscle Tension & Inflammation

Pain, muscle tension and inflammation have one thing in common – the problem area needs to be initially calmed down and sedated. This will make you feel better quickly and facilitate subsequent healing faster.

Use the continuous light beam setting (sometimes referred to as a “solid” beam) for these conditions. The continuous light beam option sedates the tense irritated cells that are producing the pain effect.

As the light penetrates the damaged tissue, it also increases the blood circulation in that area. The body directs more blood to the area to clear away the toxins that are extruded from the damaged cell as it heals. This increased circulation results in the sensation of a warm, glowing feeling within the affected cells and it further adds to the soothing effect on the painful area.

Once the symptoms subside, you can later use the pulsed beam settings for the healing of the diseased or damaged tissue (chapter 4 and 8).

Application Technique

- You don't want to further irritate the problem by pressing on the tissue, so it is best to hold the light unit slightly above the skin when applying. The light unit can touch the tissue as long as it doesn't create additional discomfort.
- Larger light units cover more area and penetrate deeper so you don't have to move the unit around as much. Smaller light units have to be moved around in order to cover larger areas.
- As the light is applied, the pain, tension or inflammation starts to diminish.
- When the symptoms have mostly disappeared, you can stop applying the light. This usually takes about 10 to 15 minutes, although you can apply it for as long as you want. There is no way to overuse it and there are no side effects. Light units can be left on overnight if you wish, for treating chronic conditions while you sleep.
- The pain will continue to subside for several hours after you stop the light application. You can reapply the LED light later if there is still lingering pain.

Pain

Pain is an unpleasant sensory or emotional experience associated with actual or potential tissue damage from some stimulus source.

The experience is either transitory (acute pain) until the stimulus source is removed and healing takes place - or the stimulus source remains and the pain continues (chronic pain). Usually pain lasting 3-6 months is considered chronic.

Pain is a signal (red flag) from the injured/afflicted area (stimulus source) through the spinal cord to the thalamus in the brain.

The LED light temporarily sedates/calms the stimulus source, interrupting the signal to the brain, reducing the sensation of pain and allowing the permanent healing to commence. Once healing is completed, the pain no longer recurs.

Sedating chronic pain usually takes longer to accomplish than for acute pain.

Conversely, **if a LED light can be applied directly following an injury**, the pain seems to dissipate almost immediately and conditions like mild burns and bruises are reversed with no additional symptoms displayed.

To help visualize what is taking place, picture the beam of light energy penetrating down to the problem cells. When there is pain, the cell walls (membrane) can be pictured in a state of extreme tension. The continuous beam provides a vibrational signal to the cell, which in turn causes the cell membrane to relax. As the individual cells relax, the surrounding tissue made up of those cells, also relaxes and the pain subsides.

Muscle Tension

Tight muscle pain can be caused by lack of use, physical overuse, not loosening up first or injury to muscle tissue. It can also be caused by stress, anxiety, fear or emotional reaction (chapter 15). In all cases the muscle pain consists of cells held in extreme tension for a prolonged period of time. It is treated the same as any other pain by using the LED light as described above. Naturopaths, chiropractors and massage therapists are able to release muscle tightness before their normal procedures using the LED light.

Inflammation

Inflamed tissue cells contain an excessive amount of fluid and toxicity, adding another stimulus source for creating pain. Using the LED light for pain relief will also facilitate the release of the toxins through the cell membrane wall. Subsequently the toxins will be cleared away by the increased blood flow, as described above.

Chapter 8 - Healing – Accelerated Tissue Regeneration

The previous chapter discussed the use of the continuous (non-pulsing) mode of the LED light units for calming and sedating the painful cell conditions. The continuous light beam also promotes healing, just at a slower rate.

Using the **pulsed mode** of the LED light accelerates the healing process up to 5 times the normal healing rate when compared against the natural healing time of newly damaged tissue. The use of the light allows you win the “healing race” against normal healing time. .

In fact, the healing is accomplished so quickly on newly opened wounds, that the body does not have time to form a scab nor will it leave any residual scar tissue.

Example

Let’s say that you fall and scrap the skin off your knee about the size of a half dollar. Normally that would take about a week to totally heal, including creating a scab to protect the wound while new skin forms. It may or may not naturally leave scar tissue.

Instead, use a LED light unit on it for 5-10 minutes, repeated every 2-4 hours. You will first notice reduced redness around the wound. Next the oozing clear discharge will start to dry up. Then you will see a thin membrane of pre-skin forming around the edges of the wound and growing at a rate up to 1/16th of an inch per hour. The fast-growing membrane covers the wound so quickly that the body does not have time to form a scab. The accelerated tissue regeneration has been accomplished in 1-2 days instead of 7 -10 days. In addition, after several weeks, there is usually no residual scar to be seen.

The Healing Process

The same healing process that your eyes can see on the skin surface (example above), also takes place with problems deeper in your body that you cannot watch happening. You can often feel the deeper healing taking place. Sometimes, if you are utilizing medical scanning techniques from your medical facilities, you can actually watch the internal healing in process.

In the case of chronic conditions, the healing does not happen as fast as new or acute conditions recover. This means that your treatment is going to take longer. It will happen if you are consistent and patient.

The LED light acts directly on the damaged, diseased or distressed area to heal the individual cells (chapter 4). In addition, the individual regenerated cells reproduce healthier replacement cells than they would otherwise create. Cells normally reproduce themselves on a regular basis. In fact, every seven years every one of your cells has been replaced! You have a completely new body! This is a very important concept for the ongoing improvement of chronic medical conditions over time.

Refer to individual chapters for general and specific healing applications protocols.

Chapter 9 - Using Direct Tissue Penetration

Using direct tissue penetration is the most straightforward method of applying LED light to your body. All you have to do is point the LED light unit at the area you want to treat and turn it on.

A review of the general application procedure in chapter 6 will refresh your knowledge and answer any questions you have concerning:

What size phototherapy unit to use (area of coverage and depth of penetration).

Which setting or mode of operation to use (pain relief, muscle relaxing or healing).

How close do you hold the light?

- The effective penetration depths remain the same regardless of whether you hold the light directly on the skin or if you hold it away from the skin up to 6 inches (for the small units) or 12 to 15 inches (for the larger units).
- The units can be held directly on the skin, especially for internal penetration, but should be held slightly above the skin when open wounds are involved.
- All the LED light units penetrate through clothes. Larger units penetrate the skull.
- The units can be held stationary or moved around in a slow motion. Slight motion is preferable since cell repair occurs faster with dynamic motion rather than with static or stationary application.
- It is important that you cover the entire affected area. Light must shine on the damaged area, or it is not regenerating those cells.
- How long or often do you treat the area?
- For the most efficient use of your time, treatments are normally 10 to 20 minutes depending upon the severity of the problem, although there is no maximum time.
- It is more effective to do several shorter treatments per day rather than one longer period.
- Treatments are usually spaced 4-6 hours apart. Repeat this process as often as you want during the day.
- You can use the LED light for longer periods of time (particularly for pain applications), since you cannot overuse the light and there are no side effects.
- Since the cells are in control, they will simply stop responding to the light once they have recovered. There is no way you can overuse the light because the cell's biological sensors will no longer react to it!
- Therefore, you could safely leave a LED light unit on all night long. Using the light overnight is an excellent technique, especially if you suffer from pain during the night.

- When you conclude a treatment, the cellular response still continues.
- Some people feel a distinct mild sensation of warmth during and after treatment. This is a good sign that healing is proceeding.
- Pain usually continues to diminish gradually following a treatment. Wait awhile to gauge the results. Then you can do another treatment if necessary.
- Remember, the LED light is not doing the healing. The phototherapy unit is acting as a remote control, which triggers the DNA in the damaged cells, and jump-starts the cell's natural healing process. Continuing with the light application for a period of time, after the initial triggering effect, supplies additional energy for the healing process.

Chapter 10 - Using Acupressure Points, Meridians, Auricular Points and Tapping

Having just discussed applying the LED light directly into the body, we will now discuss other effective methods to get LED light into the body.

The LED light can be effectively applied to and through the **acupressure points** and **auricular (acupressure) points in the ear** to deal with both pain and healing conditions.

In addition, the LED light can be applied using the **meridians** as conduits into the body that allow the light to pass through to the desired location. **Tapping the meridians** can also be utilized effectively.

General Concept of Meridians and Acupressure Points

- The body consists of 12 main meridian pathways repeated on each side of the body and 2 central control meridian pathways down the middle of the body. Each meridian contains from 25 to 150 acupressure points.
- Each of the meridian pathways is associated with a specific organ and terminates at the tip of a finger or toe. These provide an easy access points for light application to the organs.
- This meridian network connects all of the organs and other parts of the body. This system allows energy (called Chee Energy) to flow in a standard, one-way pattern throughout the body on a regular and predictable schedule.
- Two-hour energy peaks (chapter 26) occur within each meridian at different times during a 24-hour cycle. The peaks are the best times for working on specific organ problems.
- Combinations of acupressure points, including those from different meridians, can be activated (stimulated or sedated). This affects the Chee Energy flowing to a specific organ or area of the body.
- Chinese acupuncture doctors have, for thousands of years, activated these points with needles to manipulate the Chee Energy and improve the health of their patients. In the United States, acupuncture has been accepted and integrated into many medical practices.
- The hundreds of acupressure points are like little cities located on each meridian highway. They act as control stations that can stimulate or sedate the energy flow at specific points. This control activity is required when the Chee Energy is blocked or overloaded at certain organs or areas of the body. This can result in pain, tissue deterioration or disease.
- Because many people do not like needles, a variety of acupuncture called acupressure has been developed, which manipulates the points with finger pressure instead of needles. Many acupressure practitioners in the United States are using the LED light units as an alternative to finger pressure, needles, electro-stimulation and moxibustion (heat).

- When the Light unit is pressed physically against an acupressure point, it is accomplishing two modalities of treatment. The pressure activates the Chee Energy and the Light Energy travels through the meridian, like a fiber optic. Both energies activate the targeted area at the same time. This increases their effectiveness.
- To identify the meridians, acupressure/acupuncture points, and which acupressure points to treat for specific problems, you should definitely acquire one or more acupressure reference books. You will find acupressure treatment protocols for all the medical problems mentioned in this manual plus many more.

Application Technique for Acupressure points

- When we apply the light at acupressure points, we follow the same rule that we use for direct penetration through the tissue. That is, use the continuous beam to relieve or sedate the pain and swelling, and the pulse beam for healing, rejuvenation, tonifying and stimulation.
- Applying light through acupressure points has proved as effective for some ailments as direct application. Healing of internal organs, especially chronic conditions, deep body pains, sinus problems and arthritis are a few examples. We recommend using both the direct penetration and the acupressure application for most problems.
- The duration of treatment on acupressure points is shorter than for direct application. Thirty seconds on each point is sufficient.
- Make sure you press the tip of the light into the acupressure point to take advantage of the pressure benefits as well as the light benefits. Probe and wiggle the light tip within a small tight area. Don't be worried that you are not on the exact spot, since the light will penetrate a wide area during the probing. This can easily be demonstrated by holding the light unit against a fingertip. You can observe how deeply the light penetrates and how widely it radiates. Any acupressure point within that lighted area will be affected.
- You can also use what we call "acupressure point mumble" to locate a specific acupressure point described in an acupressure book. When you have a specific medical problem, the acupressure points for that problem will be tender and sore. By applying a little pressure to the skin and probing around the area, you will eventually hit the spot that hurts. You have found the desired point!

Application Technique for Meridians

- The meridians, which correspond to the different organs of the body, terminate on the ends of fingers and toes. Using LED light through the meridians is a good technique for organ problems. For a list of these meridians and the best times to apply the light see chapter 26.

- The light travels along the meridian pathways to the cells in the specific body organ that you wish to help. The DNA in the organ cells is activated by the light energy in the same way as it is with direct light application.
- Use the pulse setting to stimulate the organ and the continuous setting to sedate it. Generally, 5-10 minutes is sufficient time, although a longer treatment can be used for severe conditions. Repeat several times a day. Remember, you cannot overuse the light!
- It is very effective to alternate using the meridian application with the direct application treatment.

Meridian Tapping Technique (Tapping)

Meridian Tapping Technique (MMT) is another variation of utilizing the Meridian system to correct physical, mental and emotional problems by correcting imbalances or blocks in the body's energy flow. Referred to as Energy Medicine or Energy Psychology, it is also called Thought Field Therapy (TFT) and Emotional Freedom Techniques (EFT).

The basic theory of Tapping is based upon the premise that emotions disrupt the flow in the body's energy system. Energy patterns are disrupted due to physical, mental or emotional trauma. Tapping releases negative emotions and allows the energy to flow.

You have just finished reading about using the Meridians as physical pathways to get the LED into your body. In addition to this physical effect, tapping integrates the mind, the subconscious, thought and sound into the process. Saying certain phrases while tapping on the desired spot focuses the mind (chapter 35) on a specific area and identifies what is to be cleared (reprogrammed) to the subconscious (chapter 38).

Tapping Technique

- Focus on the desired spot or problem and tap either the appropriate "meridian end points" on the fingers or toes or tap at specific meridian points on the upper body and hands.
- Use the tip of the LED light on the pulse setting for doing the tapping in place of tapping with your finger. The light will provide cellular activation, in addition to the normal tapping activity, which stimulates the Chee Energy and focuses the attention of the subconscious.

Auricular Points Located In the Ear

- The LED light can also be used on the auricular points in the ear.
- The ear contains a small mirror image of the entire body and all its systems.
- It is similar to Reflexology's image of the body, located on the hands and feet.
- The LED light is another way of activating these points.
- Only those points that are connected to the troubled or abnormal conditions in their corresponding body system, will respond to light.
- The points that are in a normal condition will not respond to the light at all – so you can use a LED light Unit that covers the entire ear area with no problem.
- The LED treatment, of 5-7 minutes, will cover the entire ear.
- Single-light LED units may be applied with gentle pressure to specific auricular points for 30 seconds each.

Resource Books and Information

Acupressure and Meridians

- Acupressure Without Needles, by Dr. J. V. Cerney, ISBN 0-13-003848-2.
- Acupressure's Potent Points, by Michael Gach, ISBN 978-0-553-34970-2
- Your Health is in Your Hands, Dr. Dean Richards (Australia)
- Acupressure For Health, by Jacqueline Young, ISBN 0-7225-2702-0
- Any Acupuncture or Acupressure book that you may already have.

Auricular (Ear)

- Auriculotherapy Manual, Terrence Oleson, ISBN 0-9629415-0-6

Tapping – MMT, TFT and EFT

- You can browse the internet for detailed information on each of these topics or obtain published books on the same topics.

Chapter 11 - Using Reflexology Points

Reflexology Concept

Another very effective method to allow LED light to penetrate into the body is to apply the light to and through the reflexology points located on the bottom of the feet and on the hands. The reflexology points are actually various sized small areas.

The theory of reflexology has been around for a long time. Essentially, the concept is that all the major organs and areas of the body have a reflection or reflex point located on the feet and hands.

These reflex points follow the body's contour. That is, in the feet, the areas at the top of the body are shown starting at the toes. As you move down the body, you move correspondingly down the foot, towards the heel. The left and right foot corresponds to the left and right side of the body.

An identical set of points is located in the hands. This same correlation of top to bottom and fingertip to wrist holds true for the reflex points on the left and right hands.

When a reflexology practitioner massages these points and a painful area is encountered, it means that there is an energy blockage in that particular body area. Continuing to massage these painful areas will clear the energy blockages.

To obtain reflexology diagrams and charts, purchase any good reflexology book.

Reflexology Application Technique

- The normal standard reflexology technique is to massage a reflex point with your fingers. This releases the blocked energy in the corresponding organ or area.
- You can accomplish a similar result by applying a LED light to the reflex points. In addition, the light will travel through the reflex channels directly to the body areas and act on the painful locations.
- Larger LED light units are big enough to cover both feet entirely and will activate all the reflex points using just the light beam. Apply for 15-20 minutes.
- If your LED light unit is small you can also apply gentle pressure to the reflex point to further activate the energy. Press each reflex point for 15-30 seconds. On painful locations additional treatment time is suggested.
- It is recommended that you use a combination of finger pressure and
- LED light application for the most effective results.
- Use the continuous light beam setting to relax or calm down the area and the pulse light setting to stimulate or heal it.

- If possible, have another person do the treatment. This contributes to a more relaxed treatment.
- Wait at least an hour to evaluate the results. You will feel the change in the corresponding organ or area of your body.

Chapter 12 - Making Homeopathic Remedies

Homeopathy, from the Greek meaning “similar to suffering or disease” is an alternative medicine first defined by Samuel Hahnemann in the 18th century. Homeopathic practitioners contend that diseases can be remedied by ingesting substances that would produce symptoms, in a healthy person, similar to those of the disease. The substances are **extremely diluted** in a solution of water –and are called remedies. Substances can also be diluted using alcohol – called tinctures – although the use of water is more practical and equally effective since water has a memory⁵.

Practitioners select treatments according to a patient consultation that explores the physical and psychological state of the patient. There are literally hundreds of homeopathic remedies for diseases and other medical conditions of the body.

Many traditional and modern homeopaths have considered that there is an energy effect involved as well as the effect of the physical substances used in the homeopathic remedies.

Energies emanating from the body can be detected, measured and identified (**energy signature or pattern**). An example is thermal (heat) radiation detected by infrared sensors. Diseased and damaged tissues radiate a different energy pattern than do healthy tissue. We have noted that as damaged tissue heals, its energy pattern continues to change. The normal healing rate is accelerated when treated with a LED phototherapy unit. This healing process can be supplemented by using a homeopathic remedy created directly from the radiating energy of problem areas.

Normal homeopathic remedies are effective but have several shortcomings:

- The homeopathic practitioner must have a correct initial diagnosis.
- They must pick the correct set of homeopathic substances to use for the patient.
- Generally the remedy and/or dosage remain the same, even though the condition changes and improves throughout the recovery process.

These shortcomings can be overcome by creating **homeopathic remedies using a LED light device, water and the specific energy radiating from the problem area**. Homeopathic remedies can be prepared several times and used throughout the recovery period. Each individual preparation will be different because it reflects exactly the status of the problem area at this moment in time. You are creating a remedy in a “**real-time mode**”.

⁵ For more information on the structure and memory of water, browse the Internet for “the memory of water” and “water memory and homeopathy.”

A very important feature of the LED light facilitates the preparation of the remedy. In addition to activating the healing of the damaged or distressed cell tissue, the LED light beam also acts as a “carrier wave” for the energy emanating back from the treated area.

This energy signature travels along the carrier wave and is deposited into a container of water, forming a specific homeopathic remedy. The water retains the memory of the energy signature or pattern of the medical condition at this point in time.

Making Homeopathic remedies with your LED Phototherapy unit

The process is quite simple. **When you have completed your normal LED phototherapy treatment,** you will then prepare the homeopathic remedy as follows:

- Have a clear or transparent glass (not plastic bottles or baggies) container of good filtered or distilled water, for the remedy quantity you desire to make.
- Hold the container of water in front of and against the damaged area of the body. Shine the LED directly through the container so that the light beam is shining right on the area.
- Use the same LED setting as you did for the original treatment.
- Rotate the light beam in a tight clockwise circle (up to the right) making sure the beam stays within the water container and on the problem area.
- Continue for at least 3 minutes. The energy signature or pattern radiating from the problem area travels upon the monochromatic single wavelength beam of light and is deposited directly into the container of water which retains the memory of the energy.
- You now have a remedy that you may take over the next two days. An example might be to make 16 oz. that you can drink as 4 oz. twice a day for two days. Subsequent remedies, made every 2 days, will reflect the changing condition of the healing area and results in a different real-time remedy each time. We have taken the guesswork out of creating the correct homeopathic remedy; by using the body’s own energy, at any specific point in time, to create the correct remedy. Also refer to “Additional Uses for Homeopathic Remedies” below.

You can make several different remedies separately, one for each medical condition. Store them in separate containers for later consumption. Do not mix them in a single container. When you consume more than one remedy, you can drink them sequentially during the same treatment time if you desire. Each one will be attracted to its own problem area.

For fun, and to increase your own confidence level, do the following test. When you make several remedies for different problem conditions, sample each of them and compare the taste with each other and with a control quantity of the original water. They will each have a distinctly different favor (e.g. sweet, tart, salty, etc.) even though they come from the same person’s body. The different energy

signatures create the difference in taste. You can create a homeopathic remedy for any physical condition in the body, utilizing the energy signature radiating from that area.

Additional Use for Homeopathic Remedies

Now that we have created our desired homeopathic remedies and have them in containers, we can take advantage of **another way to apply the remedies to our body besides drinking it!**

The energy pattern contained within the homeopathic remedy can also be “transmitted” using LED light as a carrier wave in the same manner as the energy pattern was “received” from the medical condition! Published research has shown that both the DNA and its related energy pattern can be transferred between organisms⁶.

Homeopathic remedies are normally taken by drinking them. In this case, **it can also be used to transmit its energy pattern to the stem cell’s DNA** by passing the LED light through the homeopathic solution while the light is applied to the bloodstream.

This additional use of the homeopathic remedy is meant to help instruct and direct the normally produced stem cells in our bloodstream to the location of the medical condition.

The normally produced stem cells need an “instruction” to help them **to differentiate (change into the desired cell type) and to bio-locate to the desired location (directed where to go)**. These instructions normally are provided automatically by our body. The transmitted energy signal or pattern can perhaps **simulate the body’s natural mechanism** for these two activities when the natural process is not functioning correctly, as often happens in chronic medical conditions.

We are basically transferring the DNA energy pattern of the medical condition cells to the DNA of the stem cells in your blood stream.

For a more extensive explanation of stem cells and stem cell therapy, please refer to Part 5 (Light Therapy Combined with Stem Cell Therapy)

Energy Pattern Transmission Technique

- Separate the homeopathic remedy into two 8 oz. glass containers. One 8 oz. glass will be used for drinking as described above.
- The other 8 oz. glass will be used together with the “Strengthening Your Blood and Immune System technique” at the naval artery access point as described in chapter 25. The light application can also be made at the cardiac artery at the neck as an alternative to the naval point of entry to easily get to the blood stream.

⁶ The Source Field Investigations, by David Wilcock

- The only difference from the process description in chapter 25 is that this 8 oz. homeopathic remedy glass is held between the artery access point on the body and the LED light unit, so that the LED light is shining through the glass of homeopathic remedy water before the beam enters the artery points. The LED unit is set on slow pulse. Treatment is for at least 20 minutes.

Chapter 13 – Using Applied Kinesiology: Muscle Testing and Pendulums

We have discussed the general application techniques and will be discussing many specific application techniques using LED phototherapy devices.

These techniques are being used because you already have some knowledge of your medical conditions and have a good idea of how to correct them.

You may still encounter many situations where you don't really know enough about your given problem condition to determine what action to take. The normal and available sources of information don't give you enough specific facts about the correct diagnosis, the cause, or the treatment of your problem condition.

That's where the value of **Applied Kinesiology (AK): Muscle Testing and Pendulums** comes into play.

These techniques can tap the vast power of your subconscious mind that both contains and has access to, an immense amount of data and information (chapter 35).

This chapter discusses the techniques for your conscious mind to tap that subconscious information. Using these techniques, you can get your questions answered and provide the help you need to deal with your specific problem condition.

To appreciate the background of how this technique is accomplished, we strongly encourage you to read: Part 3: The Larger Story behind Medical Conditions (chapters 34 - 39).

Applied Kinesiology

There are many books written about Applied Kinesiology and we are not conducting a detailed class about it in this manual. However, we will give you enough information to facilitate your use of this technique. Therefore, you will be better informed about using the LED light in dealing with unusual problem conditions.

Applied Kinesiology is a diagnostic system that evaluates structural, chemical and mental aspects of health by using a method known as manual muscle testing.

A **manual muscle test** is conducted to determine the **physical** status of a specific area of the body. A practitioner selects a target muscle and has the person resist while a force is applied to it. This will result

in either a weak response (indicating stress and imbalance) or a strong response (good balance) in the area.

Another aspect of muscle testing is to use an indicator muscle in the arm for other **physiological** and **psychological** testing. This is called the Arm-Pull-Down or Delta Test, where a patient resists as a practitioner exerts a downward force on the extended arm.

This **indicator muscle technique** can:

- By holding substances, determine if it has positive or negative effect to the body.
- By touching the skin over an area, determine if it is in need of therapeutic help.
- Answer specific questions requiring a Yes or No answer

Pick Your Method of Testing

Muscle testing allows you to consciously communicate with your subconscious in a physical manner. This utilizes the fact that the subconscious has control of the muscular system in our body and can direct a specified muscle to act in a defined manner by controlling the spindle cell response during contraction.

The objective is to obtain a muscular movement, which indicates a “YES” or “NO” answer in response to your question. This requires that your question be specifically worded to get a Yes or No answer.

Three easy muscle-testing methods to accomplish this are to: use your arm, use your fingers or use a pendulum. Use whichever method is most comfortable for you. First establish the ground rules by instructing your subconscious what a Yes response is and what a No response is.

Testing With your Arm

Although another person usually does this method to you: you can do it to yourself.

Hold your arm straight out from your side and perpendicular to your body.

You will be applying gentle pressure to the wrist with your other hand after verbally making each statement.

Hold your arm strong and rigid and say, “**Strong means Yes**”. (Saying it spoken aloud is more impressive to your subconscious) Illustrate by pressing!

Next, hold your arm weak and limber and say, “**Weak means No**”. Illustrate again!

Test out this technique several times with questions where you already know the answer.

Testing With Your Fingers

Use your **thumb and forefinger to form a circle**.

With your other hand, form another circle inside the first circle. You now have an interlocking chain link.

Say, “**Strong means Yes**” (strong unbreakable connection when you try to pull the circles apart). Illustrate!

Then say, “**Weak means No**” (a weak breakable connection). Again illustrate by doing it!

Test out this technique several times with questions where you already know the answer.

Testing With a Pendulum

Hold your pendulum and its string in your thumb and forefinger with your arm up and your elbow on a table.

Swing the pendulum in a north-south (or up-down) direction and say, “**This Direction means Yes**”.

Then swing the pendulum in an east-west (or left-right) direction and say, “This Direction means No”.

Test out this technique with questions where you already know the answer.

Using the Technique

You now have three methods to communicate with your subconscious.

Before you start your test, you should first repeat the “ground rules” for your selected method, as described above.

Then start formulating your questions to get a Yes or No answer.

State your question and proceed with the muscle test or pendulum to get your answer.

Based upon the response, formulate your next question --- and so on.

Keep the questions simple. If you need to get a lot of information in order to answer your fundamental question, then breakdown your search into several different questions.

The questions can be directed to:

- Diagnose your problem correctly.
- Identify the causes of your problem.
- Give you specific treatment details⁷.

⁷ E.g. Asking questions like: Will the LED Phototherapy Light help? Which setting to use? When and where to use the light? How often or how long to use it?

Chapter 14 - Application Techniques for Specific Conditions

In chapter 6 we discussed the **general methods** of applying LED light to any problem condition of the body.

More information on these general methods and techniques was found in chapters 7 through 13.

Several types of specific problem conditions required more details and explanations.

The application techniques, for these **specific conditions** will be found in the following chapters 15 through 33.

Also, over the years people have inquired about many problem conditions that did not require their own extensive chapters. Brief comments about some of these other requested conditions, are listed in: **Part 4: Additional Treatment Cross Reference List**

Chapter 15 - Stress, Anxiety, Fear, and Emotion Release

The Problem

Emotional and stressful conditions in your daily life usually result in a **tension buildup** somewhere in your body. These tensions often focus in shoulder muscles, pit of the stomach, the neck, the lower back, leg muscles or they may manifest as headaches. **Tensions occurring regularly over a prolonged period of time** often result in ulcers, rashes, nervous disorders, nausea, migraines and other mild or serious **chronic physical medical conditions** (see part 3). We believe that various forms of stress cause up to **80%** of medical and psychological conditions!

Learn how to deal with stress and you will be healthier. This is why this chapter is so very important. An easy 5 to 10 minute application treatment with an LED light will make a major difference.

Have you ever wondered why the tension is directed to a specific part of the body over and over again? This is because you have developed a patterned physical response in reaction to different specific stress conditions you encounter. In other words, you may have many unwanted and **subconscious habit patterns or beliefs** of which you may not be consciously aware (chapter 37).

The Cause

Starting when you were a baby, and continuing as you grew up, every time you encountered a new and traumatic event, you dealt with it in the best way you could, based upon your knowledge and wisdom at the time. This traumatic event and your method of dealing with it were then stored as a program in your subconscious, just like the individual programs that are stored in a computer. **The next time the same or similar type of traumatic event occurs, your program will cause you to react exactly as you did before, by habit.** Over time these become your “belief” systems (chapter 37).

Sometimes these initial programs are based on good logic and are useful for the rest of our lives (positive beliefs). A good example is learning that putting your hand into a flame will result in a burn and cause it to hurt. This resulting program, to immediately pull back from something hot, is indeed useful.

Other programs are often created from a child’s limited knowledge and result in a negative program based upon faulty logic (negative beliefs). For example, seeing a cat for the first time startles a baby on a floor. The baby reacts by moving quickly and bumping its forehead into a table corner. The baby may then store the program in its subconscious that a cat connects to pain in the forehead. Therefore, your future reactions to being startled by a cat may cause your forehead to hurt.

Now normally, these faulty programs get replaced as the child grows up and becomes more aware. They eventually realize that the cat really didn’t cause the pain; it was just a series of circumstances.

But, within all of us, there are some events so traumatic at the time they occurred, that they are buried deep in our subconscious.

They are buried deep by our subconscious to protect us from consciously remembering the trauma and experiencing the associated pain. This makes it very difficult to access and look at them from our now more mature wisdom and understanding and to give us the opportunity to change them. It's these faulty and negative programs and beliefs in our subconscious that dictate our reaction to today's emotional and stressful events and usually we don't have the slightest clue which program is running our reactions.

For example, all we know is that when we argue with our spouse we end up with pain in our stomach, or when we are faced with not having enough money, our lower back hurts, or when our boss yells at us, our shoulders tense up. This is why lots of people go to psychiatrists - namely, to find and correct the faulty programming. **There is a simple alternative to a psychiatrist – using a LED light.**

The Mind-Body Mechanism at Work

An important part of this alternative technique is to understand just how a subconscious program causes a specific part of the body to tense up. The two main processes involved are:

- The two hemispheres of the brain
- The body's meridian/acupressure point system. If you are not already familiar with meridian and acupressure points, refer back to chapter 10.

Take our child and cat example. When the child's forehead was bumped, the pain caused the child's meridian system to also go out of balance and resulted in pressure and pain at specific acupressure points. The subconscious mind then figuratively snapped a picture of this out-of-balance meridian system condition and filed a program under the heading of "startled by cat" in its memory banks.

At the same time, the brain balance was affected. The brain has a left hemisphere (for logical thinking) and a right hemisphere (for intuitive or creative thought) and these are physically linked to each other via integrated nerve connections. The two hemispheres communicate with each other by exchanging nerve pulses. This is the normal condition of being "whole brained". Specific traumatic events can block these nerve signals and cause the brain to only operate on one hemisphere. This out-of-balance condition was also stored in your memory banks under the heading of "startled by cat".

Whenever this specific program is re-triggered by a similar current event, up comes the out-of-balance meridian system picture from the subconscious. Your actual meridian system now reverts to that picture automatically and the corresponding pain will commence. The brain balance also immediately reverts to its out-of-balance one-hemisphere condition.

The Solution

This technique of visualization and LED light, combined with your knowledge of how the mind/body mechanism functions, will help you take corrective action. Above each eye, about half way up your forehead, is located an acupressure point. These are the main points for the left and right hemisphere of the brain. **By moving the pulsed light between the two points, you are cross-connecting the brain hemispheres, causing an integration of the left and right brain.**

This also causes the meridian system to revert to a balanced condition and cancels out, for now, the out-of-balance meridian problem caused by the negative program. We say for now, because the negative program is still in your subconscious mind and can be re-triggered at another time. But for now, we can achieve a relaxation of the tensed areas in the body. **Repeated use of this technique, will usually lead to complete elimination of the negative program (chapter 38).**

Stress, Anxiety, Fear and Emotion Release Technique

- **Close your eyes.** Hold the light slightly above the skin and start moving the pulsed beam slowly between the two acupressure points on the forehead. **It is important to keep it moving for the entire technique.** The pulsing light on your forehead will break the pattern and cause both the out-of-balance meridians and the brain hemispheres to go back to a normal balanced state and relieve the physical tension.
- Remember to continue breathing during the entire technique. **Don't hold your breath.**
- **Visualize** the source of the emotional or stressful condition in your mind's eye. It is helpful to picture the people or events involved as a mental movie screen in front of your eyes. **If you have a problem visualizing mental pictures then just go with your feelings.** If you can't pinpoint the source of the stress, then focus on your reaction to the stress condition. If you are dealing with more than one stress issue, pick the worst or most important one first.
- Once you have visualized the source of your stress, mentally scan your body until you **identify and locate the physical part of the body that reacts to this source of the stress.**
- You have now realized the important **connection** between the **source** of a specific stress that "appears" to come from outside of you and your **physical reaction** to that particular stress inside your body. This specific stress source will always result in tension traveling through the same out-of-balance meridian system, to the same physical part of your body, and result in discomfort at that spot.
- Next, visualize the source of the stress multiplied 100 times. Then visualize your body's response multiplied by 100 times. Hold this situation for a few seconds, and remember to occasionally take a **deep breath.**
- Now **return** your visualization (of both the source of the stress and your body's reaction to it) **back** to the original normal stressful level and then **finally** visualize a healthy and resolved condition.

- **With your eyes closed, your subconscious cannot differentiate between real and pretend.** You have now literally taken your stress condition to “hell and back”. You have mentally experienced a condition of 100 times worse than your actual stress situation, and **survived!** You have emphasized your negative fears and anxieties, and pictured the worst, but **you are still OK!** The only way to neutralize or cancel these physical effects is by bringing your fears and anxieties out in the open and facing them.
- Now take a little time to enjoy your new, relaxed feeling and when you are ready, open your eyes.
- The body responds by relaxing and the tension subsides. This response can occur immediately, or within 30 minutes after the treatment. Crying may occasionally result. If you need to release any lingering physical tension, repeat the process after one hour has gone by.
- The whole process is like running a 5 to 10 minute movie or short story through your mind. You reap the benefits of watching it with your full conscious power of observation and understanding. You then realize that you don’t need or want this obsolete program or belief any more.
- Your sub-conscious has observed that you have used this technique to **reduce the effects** of this specific program! Each time you **repeat this technique**, for the same specific stress condition, the process and results happen faster. After several repetitions, your subconscious gets the message that you do not want this program anymore. **The negative program has disappeared!** That is, it has resolved and eliminated the irrational belief. It’s like having completed psychiatric counseling. It’s simply gone. The next time this source of stress occurs, you will find that you no longer experience any emotional internal reaction. **You still have to solve your life’s problems, but you will no longer react emotionally and physically to them!**
- At this point, if you wish, you can add a positive program (belief) on how to deal with this type of future stress in a rational manner!

Alternate Techniques

If you are not aware of the actual source of your stress, a very interesting and important alternative approach is to use the **visualization process in reverse**.

If you have a chronic pain or discomfort in a specific body area, then it might be due to a stress condition in your life. You can attempt to identify the real source of the outside stress by **closing your eyes and mentally connecting to your physical pain area**. First ask the question “what is the real cause of this pain?” Then “look out through your mental eyes” at your “mental movie screen” and see what picture materializes on the screen. **Accept the first resulting picture, feeling or thought**. This is the “source of stress” which is creating the pain in your body. The results will usually surprise you since this is a deeply buried program or you would already be consciously aware of it. You can now use the usual release technique above. If you get nothing when looking out your mental eyes, it could be that your subconscious is restricting a very sensitive topic from you at this time. Just picture on your screen, a **black box holding the topic**, and proceed with the treatment.

An additional technique for **quickly relaxing tension** is to apply the continuous (solid) light to a simple acupressure point located right on the top of the head. The point is found at the intersection of two imaginary lines. One line runs from the top of your ear, over the head, directly to the top of the other ear. The second line starts from your nose and proceeds directly up and over, to the back of your head. Press the light gently on this spot and wiggle it in a tight motion for 1 to 2 minutes. Although this technique temporarily relaxes your tension, you have not tackled the source of the problem!

For further discussion on how the sub-conscious, conscious and super-conscious minds operate, refer to Part 3 of this manual.

Chapter 16 - Headaches

Headaches cause considerable pain and discomfort.

A **headache** is a pain located in the head (usually over the eyes, at the temples, or at the base of the skull). **Migraines** are severe reoccurring headaches characterized by pressure or throbbing. .

Headaches may result from several **emotional causes** (e.g. stress, tension, worry, anxiety and fear) and/or from **physiological causes** (e.g. sinus problems, allergies, pain and other medical conditions). The physiological causes are often self-evident.

It has been our experience that the majority of headaches appear to be due to **emotional issues**.

Regardless of the emotional cause, a person's body reaction to a headache (or to any pain) includes a protective response involving the **tightening of muscles**.

This typically occurs in several areas including the scalp, jaw, neck, solar plexus, shoulders, and often, down the whole back of the body. This muscle tightening will **impede flow** of blood, nerve pulses, lymphatic fluid, Chee energy and general energy movement. Muscle tightening in the neck and shoulders will specifically impede blood flow to the brain.

Headache Relief Techniques

The best approach to relieving headaches is to **treat the symptom** (pain) area and then to **locate and treat the source**.

Treating the Symptoms

Apply the LED light directly to the painful and/or tight muscle areas. This will initially **relieve the tension area** that contributes to headaches. We recommend using the solid (continuous) LED unit setting for the following technique:

- **Relax the muscles** in the back of the neck and upper shoulders. Apply the light to these areas for 5 – 10 minutes, in a slow smooth motion on or slightly above the skin.
- Use the tip of an LED light to gently probe for **sensitive spots on the scalp** (hair) area of your head. There are always tender spots on the head when headaches are involved. Once you locate a sensitive spot, continue pressing gently in a “wiggly” motion for 20 – 30 seconds per point. Repeat for other points. When you return to any of the previous points notice how the sensitivity has diminished. If it hasn't yet substantially diminished, treat these points again.
- Apply the light for 5 – 10 minutes to the head location where the pain is the most severe. Stay an inch or two from the surface of the skin.

- If the headache still has some tension, you can use the tip of the LED light to gently press where the bridge of the nose intersects the eye socket bone. Apply to both sides of the nose. This has proved to be especially helpful for **migraine headaches**.
- Wait for 15 to 30 minutes for the effects of the treatment to take place. Then repeat the above steps if necessary.

In cases of specific or known physiological causes, you can apply the light directly to those areas for 5-10 minutes in addition to the steps above.

Treating the Sources

In the case of **emotional causes**, headaches are just one symptom of a greater underlining sub-conscious reaction. These often relate to deeply held beliefs and their corresponding habit patterns.

To truly get to this source of the problem and to better understand the underlining causes you are really dealing with, we **strongly recommend** that you refer to the material about **Stress, Fear, Anxiety and Emotion Release** in chapter 15.

Also reading Part 3 on **The Larger Story behind Medical Conditions** may prove helpful.

You can apply these techniques to help relieve your current headache as well as using them to help in permanently getting rid of the **root causes** for your headaches in the first place.

If the primary cause is **sinus congestion or airborne allergy reaction**, please refer to chapter 22 for further treatment techniques.

If **food allergy reaction** is a contributing factor, please refer to chapter 21 and remember to “spin” your food.

Chapter 17 – Arthritis

Arthritis is a debilitating problem usually affecting the joints. It is more common as you reach older age, but can also occur as a result of previous joint injury or other causes.

Advanced stages of arthritis can result in swelling of the joints, calcium deposits, restricted movement and pain. Cold and wet weather can often irritate these conditions. It has also been noted that certain foods, specific to each person, can aggravate the arthritic condition. This treatment protocol applies to all types of arthritis.

Experience has shown that a **three-phase treatment** approach is the most effective.

- Reduce the pain
- Commence with regeneration of the cells (healing)
- Counteract the irritating effect of certain foods

Pain Reduction

Refer to chapter 7: **Reducing Pain, Muscle Tension and Inflammation.**

Larger LED light units are preferable because they cover more area and penetrate deeper. Always use the solid (continuous) light setting.

Hold the light unit close to or on the skin.

Small LED light units have to be moved slowly over the entire painful area.

Larger units can usually be held in place on or over the area.

When working with the hands and feet, you can apply the light to all sides of the joints. Apply the light for 15 – 20 minute, three times per day.

You can apply the light for longer periods or more frequent applications if there is severe and continuing pain.

For arthritic conditions deeper in the joints, such as knees and hips, we suggest using the related **acupressure points** (chapter 10) in addition to direct penetration. This is especially important if you are using small LED light units.

Treatment should be continued until the pain has diminished and is not reoccurring.

This phase can take from a few days to several weeks, depending on the severity of the arthritis condition and how extensive it is within the body.

Cell Regeneration

Continue the same treatment schedule as above using the pulsed light setting instead of the solid setting.

This phase of the treatment will help to **stimulate cell regeneration and healing** (chapter 8) and should result in reduced swelling and increased mobility of the joints over time (2-6 months).

As your condition improves, you may want to reduce the number of light applications per day and/or the duration of each application.

Eliminate the Reaction to Food

It was noted earlier that certain **foods irritate arthritis**. Another way to state this is a significant number of people with arthritis also appear to be allergic to specific foods.

We don't feel enough data is available yet to state that **food allergies** cause arthritis or that arthritis is a symptom of food allergy. However, we strongly feel that regardless of whether the food allergy connection is a cause, a symptom, or just an irritant, it should be taken into consideration.

Use your light on all foods, pills, liquids that enter your mouth (**chapter 21**).

Use this technique now and plan to use it continually, since we do not yet understand fully why allergies occur or how to eliminate them.

This phase is so important because all the work you do in the first two steps can eventually be undone by not applying the light to your foods regularly.

Chapter 18 - Insect Bites and Stings

This technique pertains to the **allergenic reaction** that many people suffer when bitten by ground-based and flying insects. They suffer the irritation, pain and even life-threatening effects of insect, spider and ant bites in addition to bee, wasp, and yellow-jacket stings.

The initial symptom of an insect bite or sting is usually swelling. This is due to the antibody reaction of our body to the normally mild toxic foreign substance emitted into the skin during the bite or sting. Itching, pain or both normally follow this reaction. The person usually scratches the area, often spreading the effects. **The LED light may be used immediately to reduce the swelling, itching or pain.**

Application Technique

- The continuous (solid) light beam should be used first since this calms the reaction.
- You will notice that the irritating feeling will start disappearing quickly. Continue using the LED light close to each bite or sting until the irritating feeling or pain is gone. This usually takes 5 – 15 minutes per bite area.
- The pulsed LED light may then be used to accelerate the healing. The pulsed light beam helps the afflicted cells to recover faster and allow faster absorption and elimination of the foreign substance.
- The pulsed light can be used for 5 – 10 minutes each hour over the next 4 – 6 hours. Normally it takes several hours or overnight before the swelling and skin marks have disappeared.
- This technique also applies to allergic reactions people suffer from contact with certain shrubs and plants (e.g. cedar, rosebushes, etc.).

WARNING

Although the light is extremely effective for the **normal allergic reaction** to bites and stings, persons who are **severely allergic to the toxins from insects and bees should follow their physician's directions concerning what to do when these situations occur.**

Be aware that this technique **does not apply to poisonous bites and stings** from snakes or some spiders and insects. In these cases, the venom is very toxic and must be **treated accordingly by a physician or by the appropriate medical facilities.**

This warning also applies to **toxic plant reaction** such as nettles, poison ivy, and poison oak. **The LED light only deals with allergic reactions, not toxic reactions.**

Chapter 19 - Skin Conditions

Some of the early research using soft laser and LED phototherapy units showed dramatic results with the following skin conditions:

- Wounds and cuts⁸
- Abrasions
- Shingles
- Skin ulcers and Herpes
- Bruises⁹
- Burns¹⁰
- Scar tissue, lesions and bunions. Scar tissue improvement is more rapid with new scars than with older ones (those over one year old). Even the older tissue can become softer and more pliable if not totally eliminated.
- Eczema, psoriasis, acne, herpes and rashes. If you suspect that the rash is due in part to a nervous condition, please refer to chapter 15 on **Stress, Anxiety, Fear and Emotion Release**. Also see chapter 21 on **Food Allergies** if you are aware of a possible connection.
- Facial wrinkles. Also refer to chapter 27 on **Facial Toning and Reducing Wrinkles**

Skin Application Technique

- If any pain, itching or irritability exists, always use the **continuous beam** until this condition has been reduced or eliminated. Then proceed with the cell repair.
- Many skin conditions may have no pain or irritation present at all, just the visual effects of the skin problem itself. Therefore, you can immediately use the **pulse light** setting to accelerate the cell regeneration. Use the slower pulse setting on all skin conditions except for shingles. With shingles you are actually treating nerve tissue, so you want to use the faster pulse setting.
- Hold the light close to, but not on the skin. Slowly move the LED light **over the affected area** for 10 - 15 minutes minimum about 3 – 4 times per day. You can apply the light quite safely for longer periods or for more frequent applications. It has also been noted that in some cases, working with the light over one affected area has resulted in improvement in other non-connected affected areas.

⁸ It is always better to apply the LED light as soon as an injury occurs for the fastest healing results. In the case of a bruise or a burn that just happened, applying the LED light immediately for 10 -20 minutes will usually result in no bruise or burn mark appearing at all. For cuts and some wounds that are bleeding, the bleeding will reduce quicker due a faster rate of blood coagulation. As always, the light treatment is to supplement whatever existing treatment you are already taking under the direction of your physician.

⁹ Same as above.

¹⁰ Same as above.

- You can observe the healing effect take place on damaged and open tissue areas, even between treatments. The normal redness around the area will start diminishing and a thin membrane of tissue will start growing around the outside perimeter. It will accelerate the normal healing cycle very rapidly. In many cases, it heals so quickly that the body does **not even have time to form a scab** over the area. Scabs form to allow the skin underneath to develop. It will usually heal **without any scar tissue**.
- For some types of recurring skin conditions, **such as herpes**, it is important to apply the light when the first stages of the problem begin to manifest (e.g. itching, redness, heat and swelling). It has been observed that by applying the light early in the cycle of the problem, it will generally stop the balance of the reaction. If the reaction is already well underway, the light will accelerate the healing cycle (observed to heal approximately 3 to 5 times faster than without the light).

Chapter 20 - Teeth and Gums (Periodontal)

This technique relates to another significantly researched¹¹ application area of the Light Emitting Diode (LED) and the Soft Laser, namely the dental field. The LED results are comparable to the soft laser results. Three application areas can be considered:

- Reduction of both toothache pain and post-dental treatment pain
- Improved bonding of fillings
- Improvement of periodontal conditions of the gums

Use the **continuous** LED light setting for pain relief. Since the light easily penetrates through the thin skin of the cheeks, it is not necessary to apply the light through the open mouth, unless you desire to do so. Minimum treatment time is 10 to 15 minutes or longer, repeated each hour until the pain is sufficiently reduced.

Dentists routinely use a blue soft laser light to activate the bonding of separate filling materials to each other. You can extend this bonding concept to the bonding between the filling and the tooth by using the **pulsed LED setting** to the new filling area directly after you leave the dentist office. Several treatments of 10 minutes each will be adequate during the time it takes for the anesthesia to wear off. After that you can revert to pain relief if needed. The application technique is the same as above.

The excellent results in **improving gum or periodontal problems** are especially notable. In these cases, the pulsed light setting is used and is also generally applied through the thin tissue of the cheek. Just move the light unit back and forth over affected gum area. You may gently touch the skin or hold the light slightly above the skin. Short treatments (5 – 10 minutes) applied frequently throughout each day (4 – 5 times) are the most effective. Give the gum problems 5 – 10 days to start showing improved results.

¹¹ Reference: “Resonance frequency analysis on orthodontic mini-screws subjected to light-emitting diode photo-bio-modulation therapy” in the December, 2010 issue of the European Journal of Orthodontics.

Chapter 21 - Food Allergies & More

A great number of people have **allergic reactions** when they **consume certain types of foods, liquids or other organic material**.

Allergy reactions can also occur when your **skin comes into direct contact with other substances** such as metals, cosmetics, lotions, perfumes, hairsprays, hair dyes and permanents. While the following discussion focuses primarily on allergy reactions to ingested food, please be aware that it pertains equally to these other types of allergy reactions and can be treated in a similar fashion.

Allergic reactions normally occur when your body's immune system mounts an attack on certain proteins in the food. The substances in the food that cause this reaction are called allergens. Your immune system produces antibodies to combat them. This **battle causes an allergy reaction**.

Allergic reactions can include inflammation, swelling, itching, drippy nose, dry throat, rashes, nausea, diarrhea, and breathing difficulty. The normal response is to have tests conducted to determine what food or substance you are allergic to and then avoid eating that food. However, the **LED light can be used to alleviate some allergic reaction symptoms to these foods**.

The use of the LED light is not curing the allergy, but is simply preventing your body from reacting to what it thinks is a foreign substance. The **actual causes** of food allergies can originate in digestive, liver and kidney areas as well as being caused by stress, emotion and psychological reasons. Your **subconscious beliefs** can be a powerful force! If you are aware of these causes, you can work on them as discussed in the **appropriate chapters in Part 3**.

The LED light is effective on most allergy reactions but **will not work with more serious conditions (often called toxic reactions)** involving things such as lactose intolerance, gluten, wheat, food additive, food poisons, shellfish, peanuts, fish or eggs to name a few.

The Allergy Reaction Concept

In order to help you understand what is happening when the LED light is applied to organic substances, let's visualize things at the molecular level and add an expanded definition of the concept of allergy reaction.

Your cells are comprised of atoms. An atom consists of a nucleus in the center and the electrons that revolve around the nucleus. **These electrons spin in a specific direction, generally clockwise and at a specific speed. This is your body's normal high-energy state.**

The electron movement in **foods and other organic substances** may vary in their speed and direction (often the direction is counterclockwise) and **have a lower natural energy level than does the human body.**

This brings up the fundamental question of how we can put any foreign substance into our body without triggering a reaction! The answer lies in the realm of energy. In physics, when a low energy field is introduced into a higher energy field, the higher field draws up the lower field to match itself. The lower field will never drag down the higher field!

When you consume foods and liquids, **the stronger energy field of your body causes the food's energy field to adjust exactly to your body's energy level.** In this manner, the food can be digested and passed through your system without any adverse reaction. **Your body does not think the substance is a foreign invader.**

If for some reason (refer to allergy causes above) your body is unable to normally adjust the energy field of a particular food that you have consumed, then you will have an allergic reaction. This reaction may be a minor one where you feel uneasy or you get stomach gas or you get a headache. The reaction could also be a more extreme one where you may break out in a rash, itch, bumps, swelling or worse.

How can the LED light help this situation?

Food Allergy Technique

- Use the light simply as an energy source to force the food's energy level to adjust to your body's energy level before you eat or drink it. **The light's energy provides the missing strength normally supplied by your own body.**
- If your body's energy field won't do it, then the LED light acts as a power boost to the food's electrons that enable them to adjust their speed and direction to yours.
- The electrons absorb the light energy. This results in a temporary hyper chaotic condition. The electrons then seek a more stable condition. Your **body's energy field provides this stable reference condition** by being within close proximity to the food.
- This can be accomplished by holding one of your outstretched hands within four inches of the food. Hold the LED light, using any setting, in your other hand about 3-4 inches away from the food. Rotate the light rapidly in a clockwise circle so that it covers both your hand and the food. **Clockwise (to the right) is absolutely important – if you turn it counter-clockwise, it will not work.** Several seconds is adequate. It is just like spinning or stirring the food's energy field and your hand's energy field together. We refer to this action as “spinning your food”. The food will retain your body's energy level for approximately six hours, at which time it will go back to its original energy level. This is more than sufficient time for the ingested food to break down into

its component parts and to no longer be allergenic. If the food is put away overnight it must be “re-spun” again tomorrow before you eat it.

- Remember to place your hand close to the food. Without your body’s energy field close by, you are just spinning the food into the table’s energy field and this will not benefit you at all. Each person must do this with their own food helping. Spinning the food in a skillet on the stove won’t help the other people who will be eating food from it.
- This is an **easy technique to test and validate** when you or a friend have a known allergy reaction. In fact, you should do this because if it proves valid for an obvious allergy, then it will also be valid for less obvious allergies, no matter how subtle the physical reaction.
- It is thought that minor allergy reactions build up over time. For example, they may build up in a kidney. Then later in life the buildup reaches a threshold and then the kidney starts malfunctioning. By this time, the kidney problem is usually blamed on some reason other than allergy because the allergy is not readily apparent. There have been some estimates that allergies are involved in a significant number of medical conditions.
- Our very strong recommendation is that you **use this LED light on everything you eat, drink or put in your mouth**. People who know kinesiology techniques or who use a pendulum (chapter 13) can identify problem foods. It is not easy for most of us to determine what foods we are allergic to and what we are not, so why risk it?
- When you test this technique, **use common sense**. Start with a small sample of the food and build up the quantity. **Do not use this technique on any life threatening allergy, unless under the direct observation of your physician.** Also, remember that your subconscious beliefs can be a powerful force to deal with (see Part 3).

This technique has also been successful when you have allergy reactions with metals, cosmetics, lotions, perfumes, hairsprays, hair dyes and permanents that are applied to your body. Remember, when spinning these items the energy adjustments work for a limited time, usually 5 - 6 hours, then must be re-spun.

If you are bothered by airborne allergies, **refer to chapter 22** on Sinus Relief and Airborne Allergies.

Chapter 22 - Sinus Relief and Airborne Allergies

Sinus irritation and inflammation is a very common problem affecting a surprisingly high number of people. Sinus irritation is essentially an allergy reaction to airborne substances such as pollen, pollution, weeds, dust, mold, animal hair and even heat and cold. The sinuses react to the irritant by producing excessive mucous which either congests (creating pressure in the head) or drains (causing flowing, dripping, and sneezing). Excessive draining often causes additional irritation to the throat and chest.

The **sinus cavities** are located above the eyebrows and below the eye sockets on both sides of the face. They look like the wings of a butterfly perched on your nose. These cavities contain a **mucous membrane** lining that processes the air you breathe in through your nose.

While there are several medical conditions that do affect the sinus membrane, we have found that **airborne substances are not the root cause of the more common sinus problems!** The normal healthy sinus is quite capable of processing airborne particles. When sinus membrane cells are not healthy, they cannot properly process the airborne particles. These particles then overwhelm the sinus and the problems begin. **Weak sinus cells cause airborne allergies – airborne substances do not cause sinus problems!**

What causes the sinus cells to become weak? There are theories such as a weak digestive system, emotional and psychological factors or other physical causes. The truth is we don't really know. If in your particular case, you suspect a root cause, you can apply the LED light to correct it as described in other chapters in this manual.

However, regardless of the cause, you can **use the LED light to temporarily rejuvenate the sinus membrane cells** so that they can process the airborne irritants. Once this happens **your body can have the time to recover and you won't have to continue suffering your symptoms.**

Sinus Relief Technique

The same technique is used for both congestion and excessive nasal drainage. Use the **pulse setting** for congestion and the **continuous** light for excessive drainage.

A small LED light unit is well suited for this technique because the individual LEDs can be used to apply pressure as well as apply the light beam. A larger LED unit will still apply the light beam but requires that you use your finger or some other substitute to apply the pressure when needed.

The first step is to **apply the light directly** to the four sinus cavity locations on the forehead above the eyes and below the eye sockets. These will be very sensitive to the touch, so you will have no problem in locating them. You can hold the light just above the skin and then move it around slightly so that the

entire cavity area is flooded with light for 3-4 minutes. Each sinus cavity area is about 1-2 inches long and 1 inch wide.

The second step is to **apply the light to each of the following acupressure points** for 30 seconds each. You can readily locate the point by what we call **acupressure mumble**. That is you press the light gently into the point and if it feels tender (it says “OW”) you are there. If not, mumble around the area until it does go “OW”. Now you can “back off” the pressure a little and gently (let the light do its work) rotate in a tight clockwise direction. If you encounter an unusually tender spot, spend a little extra time on it. Remember that these **acupressure points occur on both sides of your body**.

- One inch above the eyebrow over the center of the eye.
- Below the eye on the orbital rim of the eye socket.
- In the hollow just on top of the jaw hinge, in front of the ear.
- At the angle of the jaw, **push into the indentation**. These points might be very tender.
- To the side of the tip of the breastbone.
- In the hollow in the back of the head behind the mastoid toward the midline. **Push in and upward in the hollow spot**. These points might be very tender.
- In the web between the thumb and forefinger. **Push in and upward**. These points might be very tender.
- On the outside of the base of the little finger.

The third step is using the light to gently probe for sensitive spots anywhere on the top, back, front, and sides of your head. There will invariably be several tender spots caused by the sinus irritation. Once you locate a sensitive spot continue pressing gently in a tight clockwise motion for 15 – 30 seconds. The sensitivity will diminish.

The final step is to repeat the first step of direct application for about 1 – 2 minutes on each sinus cavity.

Generally, improvements start appearing within 20 minutes. Wait for a full hour to assess the results. If you feel the need to apply the light further, go back to those spots that were the most sensitive, plus do a quick application directly to the sinus area.

Additional Considerations

Some allergy reaction symptoms in the sinus could be related to **foods** that you eat. If you believe that this is the case, refer to **chapter 21** on Food Allergies.

If you know you have previously reacted to some **allergen sources** such as cat hair, flowers, perfume or paint fumes, then you can use the same “**light spinning**” technique on these sources as described in **chapter 21** on Food Allergies. This will temporarily help, although you will still need to strengthen your sinus cells.

Also refer to chapter 33: Nasal Treatment with LED Light, for additional information relating to help with sinus conditions.

Chapter 23 - Eyes

Eye conditions may include:

- Redness¹²
- Irritation¹³
- Glaucoma
- Macular degeneration (wet or dry)
- Floaters and Flashes¹⁴
- Optic nerve damage
- Dry and wet eyes
- Detached retina
- Early stages of cataracts

The LED light is very safe for the eyes. A **continuous setting** can be used for glaucoma, redness and irritation.

A **pulsed setting** can be used for the remaining conditions - and for any condition not referenced above (the light may rejuvenate other abnormal eye cell conditions).

If a **fast pulse rate** is available, we prefer it for several reasons:

- A faster pulse rate is more effective for brain and nerve tissue application (chapter 5 and chapter 24).
- The light is capable of penetrating through the eyes and up into the frontal part of the brain itself.
- The eyes are visual organs that contain the retina, a specialized type of brain tissue, containing photoreceptors. These specialized cells convert light into electrochemical signals (through the ganglion cell layer) that travel along the optical nerve to the brain.
- Therefore, while treating the eyes we are simultaneously treating nerve and brain tissue.

Eye Application Technique

The LED unit is usually held a few inches in front of the eyes (up to 6-8 inches away if desired). Move it slowly back and forth, making sure you scan the light over both eyes. Eyes are designed to function as a

¹² Eye conditions that respond quickly to treatment include the harmless “floaters” and the “light flashes” that occur when undissolved gel particles break off from the back portion of the eyeball. These will resolve themselves with the LED light treatment. **Excessive flashes could indicate retinal detachment from the back of the eye and you should also consult your eye doctor.**

¹³ Same as above.

¹⁴ Same as above.

pair. You can keep your eyes open or keep them closed. The LED light will penetrate through the eyelids. Because of this penetration capability, the LED unit can be held directly in front of the eyes or at a slight angle from above, below or the side. Use whichever position is most comfortable.

Treatments should be 5-10 minutes. Longer is okay. Repeat several times a day (3-4 or more if desired).

If you establish an initial reference base line for your eye condition at the beginning of treatments, then you will be able to judge your progress over time against this reference base line. Choose your own set of reference base lines. Your doctor may be of help here.

You may continue using any other eye treatments that you are currently utilizing, along with incorporating the LED unit. This is a very safe approach to healing.

Eyesight changes due to aging involve less flexibility of the eye itself.

You can benefit substantially by incorporating physical eye exercises, such as the Bates Eye Exercises, to increase the range of motion of your eyes.

Again, we want to reiterate that eye conditions that respond quickly to treatment include the harmless “floaters” and the “light flashes” that occur when undissolved gel particles break off from the back portion of the eyeball. These will generally resolve themselves with the LED light treatment. **Excessive flashes could indicate retinal detachment from the back of the eye and we strongly recommend that you should consult your eye doctor.**

Chapter 24 - Brain, Nerve and Mutated Cells

When you are working on problems related to the regeneration of brain and nerve tissue (cells) or with mutated cells, you need to use a **pulsed light setting**. Although a slower pulse rate setting will work, using a faster pulse rate appears to produce better results more quickly.

The fast pulse rate was initially developed primarily for use on these particular types of tissue conditions. The **larger** LED light units are preferred since they can penetrate deeper (up to 8 inch penetration).

This chapter discusses some specific information about using the fast pulse setting and supplements the application techniques referred to in chapter 4, chapter 6 and chapter 8.

Brain Tissue

Brain cell issues include such conditions as concussions, whiplash, strokes, memory loss and many other problems impacting normal brain tissue functioning.

The important point is to get the **light beam through the skull** and into the brain tissue so that the previously described beneficial results of the LED light can take place. The larger LED units can penetrate through the skull even **from several inches away**.

A good method of application is to lie horizontally on a bed. Place the light unit vertically several inches behind the head with the light beam pointed directly at the top of the head. This can be very effectively and efficiently applied while one is sleeping at night. It can be left on all night if desired. Remember that the LED light cannot be overused and has no known side effects. Use the faster pulse rate option.

The best method to apply a small LED unit to the brain is to shine it through the eyes where there is no bone. This point of entry affects only the front part of the brain since the light does not penetrate as deeply as larger units.

Nerve Tissue

Nerve cell issues include conditions such as spinal damage, carpal tunnel syndrome, shingles, whiplash injuries to the neck and many other problems relating to nerve damage or irritation.

Although the faster pulse rate is more effective for healing, it is better to first calm down and **sooth the nerve area** using the continuous (non-pulse) light mode setting for the initial application. **Subsequent treatments** can then utilize the benefits of the faster pulse setting.

Mutated Cell Tissue

Mutated tissue conditions involve previously **normal healthy cells** that have been **exposed to toxic sources** and are now **mutating into unhealthy cell tissue**. This tissue can continue to mutate at a slow or fast rate. Not only do the individual cells mutate, they produce replacement cells that also further increase the mutation area.

All cells reproduce themselves by division over time. Today we do not have any of the same cell tissue that we consisted of seven years ago! Our body has been totally replaced with new cells.

We can utilize this fact by using the LED light to not only affect and **improve the existing mutated cell (see chapter 4)**, but also to **encourage the reproduction of less mutated cells**. This improves the spread of a more healthful condition of the cell area over time.

Again the fast pulse light setting is recommended.

Chapter 25 - Strengthening Your Blood and Immune System

LED light is used to stimulate the cells in your bloodstream and works to:

- Improve the condition of the red blood cells by improving their oxygen carrying capability and general blood circulation.
- Improve the condition of the immune system cells to help achieve a healthier immune system. Immune system cells are produced from your bone marrow and enter into your bloodstream. They consist of B and T cells together with white blood cells (leukocytes). They constitute the primary immune system components in your bloodstream.
- Provide strong immune system cells to help clear bacteria, parasites and foreign bodies in the bloodstream. This will also increase your feeling of energy.

Technique for Strengthening the Blood and Immune System

Use the LED light unit on a slow or fast **pulse setting for cell regeneration**.

Shine the pulsed LED light directly into your **navel (belly button area)** for a period of 20 minutes. The **abdominal artery or aorta** is the largest artery in the body and comes close to the surface directly behind the belly button. The light can also be applied to **the side of the neck where the carotid artery is located** and is also very close to the surface. **These two points are the best access points to reach the DNA in all of the blood cells.**

This allows the light to easily penetrate into the bloodstream. **Within 20 minutes, your body's blood supply will flow in front of the pulsed light beam several times.**

For individuals in a reasonably good state of health, one application per week is sufficient. For persons who suspect a deficient blood or immune system condition, the light applications should be daily. After several weeks, if your conditions improve, you can apply it twice a week.

Diagnostic Techniques

What is the condition of your blood, circulation and immune system?

You may already know your condition from **previous medical activity**.

“Dark field” photography/microscopy, a method of viewing a sample of your blood under a microscope, can determine the:

- Size, shape and number of red cells, white cells, T-cells, B-cells, plus their condition and reproductive ability

- Occurrence of cholesterol.
- Presence of parasites or bacteria and indications of colon problems.
- Presence of mutated cells and possible presence of artificial substances and chemicals.
- Indications of Candida yeast.

Your doctor can also perform blood tests to determine the presence of many of the above conditions including a count of the immune system cells.

Additional Immune Strengthening Information

There are **5 types of leukocytes produced from your bone marrow**. An important one of these is a lymphocyte found in the lymphatic system. For additional information on helping your immune system, please refer to chapter 29: The Lymphatic System and Lymphedema.

Do your **research** into: (a) available herbal and nutritional colon cleansing programs, (b) Candida, yeast or mold elimination programs, and (c) immune system strengthening programs.

Consider Far Infra-Red (FIR) Saunas and/or Rectal Heat Probes (Thermo-Therapy) to **stimulate the production of new immune system cells from your bone marrow**. The LED light application will strengthen only the existing immune cells in your bloodstream. It will not produce new immune cells from your bone marrow. **The sauna and rectal heat probe stimulate additional immune system cells.** The Rectal Heat Probe (Thermo-Therapy units) is also extremely helpful with prostate and hemorrhoid conditions.

Chapter 26 - Rebalancing the Body's Energy

This chapter takes advantage of your increasing knowledge of the **meridian and acupressure point system** obtained in chapter 10.

As mentioned previously, the **12 main meridians** start at a body organ and terminate at either the tip of the fingers or the tip of the toes. One exception is the kidney meridian which terminates on the bottom of the foot and has an alternate access point on the front of the neck.

Remember that the meridians are located on both hands and both feet; one for the left side of the body and one for the right side.

The **2 main control meridians** terminate directly above and below the lip.

All fourteen meridian pathways traveling through the body must pass through one or more **joints of the body**. This allows the LED light to affect all the meridians passing through these junctures with the single application.

It is obviously important to keep these pathways open and fully functioning for optimal health and maximum energy.

When meridian pathways become blocked, the **Chee energy flow** (chapter 10) is congested or completely stops. The meridian system becomes unbalanced. Depending on the meridian blocked, the corresponding body function diminishes and pain, negative symptoms, illness or disease occur.

The common sources and the most prevalent **causes that can disrupt or block these meridian pathways** include:

- Physical Injury
- Stress (all types from all sources)
- Fear
- Anxiety
- Heightened Emotions (both negative and positive)
- Radiation Exposure (e.g. microwaves, radio waves, etc.)
- Loud Noise
- Heavy Vibration
- Air Pollution
- Food Pollution (e.g. additives, pesticides, etc.)

The Meridians

Main Meridians	Access Point	Peak Energy Time ¹⁵
Heart	Inside of Small Finger	11 am to 1 pm
Small Intestine	Outside of Small Finger	1 pm to 3 pm
Bladder	Small Toe	3 pm to 5 pm
Kidney	Under Arch of Foot	5 pm to 7 pm
Circulation-Sex	Second Finger	7 pm to 9 pm
Triple Warmer ¹⁶	Third (Ring) Finger	9 pm to 11 pm
Gall Bladder	Third Toe	11 pm to 1 am
Liver	Inside of Big Toe	1 am to 3 am
Lung	Thumb	3 am to 5 am
Large Intestine	First Finger (Forefinger)	5 am to 7 am
Stomach	First Toe	7 am to 9 am
Spleen	Outside of Big Toe	9 am to 11 am
Control Meridians ¹⁷		
Central	Below Lower Lip	
Governing	Above Upper Lip	

Rebalancing Meridians

When the **meridian system becomes blocked and unbalanced**, the objective becomes to rebalance it.

There are several situations when we need to rebalance the meridian system:

- **In the morning**, to shake off the residual effects of your dream activity and to reenergize your body for the day's activity.
- **At the end of the day**, to eliminate all of the day's negative assault on your physical, mental and emotional body. Don't let the negative effects continue to multiply over time – they just get worse!
- When a **“major event”** has just happened to you and it is throwing you for a loop and leaving you off-balance. **Deal with it when it first occurs.**

¹⁵ See chapter 10

¹⁶ Triple Warmer – Unlike the other meridians it does not represent an organ. Rather, its purpose is to circulate water type energy throughout the other organs. Blockage of this meridian can result in a stiff neck or water retention.

¹⁷ A special note: these two points may be used (for a few minutes on each point) at any time to re-energize yourself during the day when you feel your energy level at low ebb. These are the main “plug-in” points for the two control meridians and they feed the other twelve meridians. By applying LED light energy here, at these two points, you can re-energize all the meridians.

Meridian Rebalancing Technique

A quick method of **balancing all the meridians** is to apply the pulse light around your joints and to the meridian termination points on the fingers and toes.

This technique is best accomplished with a smaller LED light unit or one that can be easily held in the hand. A large LED unit is still effective.

Each step should take about **5 to 10 seconds**, with a total treatment time of about 7 to 10 minutes.

- Apply the light to the center of the top of the head.
- Apply the light to the center of the forehead (third eye).
- Apply the light back and forth on the forehead above the eyes.
- Starting at the top and working down, apply the light to each major joint (the neck, shoulder, elbow, wrist, waist, hip, knee, and ankle). Apply the light completely around each joint (360 degrees). Do both sides of the body.
- Apply the light to each fingertip of the hand.
- Apply the light to each toe tip and the bottom of the foot.
- Apply the light to the hollow at the “V” of the neck and to the bone directly on each side, where the “V” comes together. This is the alternate kidney access point.
- Apply the light to the points directly above and below the lip (see Meridian table).

If you do this technique in the **morning**, you will find yourself with more energy as you start your day. Once you begin doing this, you will notice a real difference. By doing the technique at the **end of the day** will help you sleep better. Using it when a “**major event**” happens will settle you down.

Chapter 27 - Beauty Treatment, Facial Toning and Reducing Wrinkles

The use of LED light for facial toning has proven to be very popular.

Facial toning is a term that describes restoring the facial features from a rough and wrinkled condition to a softer, firmer and more radiant complexion. This involves **re-activating and rejuvenating the facial cells**.

As we age, facial cells slow down their production of collagen and elastin, and our faces start showing the results. This is what causes a wrinkle. We can help reactivate these cells, to produce additional collagen and elastin and plump up the tissue, by stimulating them using the **pulsed** red LED light.

In chapter 4 we learned the mechanism of how damaged or aging cells are reactivated. The increased production of cellular proteins also **includes the production of elastin and collagen**. This causes tissue to plump back up, the wrinkles to diminish, and a healthy looking glow to appear.

The use of stimulation devices to accomplish facelifts has been highly publicized in advertising and on television talk shows. These devices have included electrical, magnetic, sound and light stimulation. Light is by far, the most effective and comfortable to apply and you cannot do anything wrong. You cannot overuse it and there are no side effects.

Application Technique

- **Wash and clean your face thoroughly.** You can use witch hazel or some other non-oil-based preparation. This will insure that the light will be better absorbed by the skin tissues rather than by the greasy oil substances on the surface of the skin.
- Initially, use the **pulsed setting** on the LED light to slowly cover your entire face for 5-10 minutes. If you have a larger light unit you can hold it 3-6 inches away and it will encompass the whole face. If you have a smaller light unit you will have to move the light left to right and from the top to the bottom of your face in a slow waving motion.
- Next, holding the light unit just above the skin, run the light along each major wrinkle line for a short time (longer if the wrinkles are deeper). Then move the light transversely (zigzag) across the wrinkle line in short strokes for the entire length of the wrinkle. The number of wrinkles that you have will determine the length of treatment time.
- **Acupressure points** (chapter 10) can also be very effectively utilized for the stimulation of the facial tissue. Obtain a simple book of acupressure or acupuncture points making sure it contains points for the face.
- You can spend a little time focusing the light on places where **sagging** is noticeable.

- Finally, **repeat the second application step** above. The entire technique might take 30 to 45 minutes.
- Your face may develop a slight flush at the conclusion of the application. This is due to the increased blood flow and collagen stimulation. It will disappear shortly.
- Now apply a good **Collagen and Elastin cream** to your face and rub it in gently. Remember to **use the LED light on the cream** before applying it to your face to **alleviate any potential allergy reaction to the cream** (chapter 21).
- We recommend doing this procedure in the evening, before going to bed. When you wake the next morning, you will notice the difference. Wait at least three days after the application to fully evaluate the results.
- You may repeat this process as often as you wish until your desired result is achieved.

Once you achieve your desired results, you will need to do a **quick maintenance routine** each evening or at least weekly. You are only temporarily reactivating your facial cells. Mother Nature and the aging process will still work against you.

Chapter 28 - Addictions - Tobacco, Food, Alcohol and Drugs

This chapter discusses the use of LED light to help deal with troubling **addictions**. The same techniques apply to smoking (tobacco), overeating (food), drinking (alcohol) and medication (drugs) addictions.

You must first have an **overriding desire to want to quit your addiction**.

Then you need a **basic plan of action and good support**.

LED light application can then help to reduce your desire for tobacco, food, alcohol and drugs in two ways:

- Dealing with the **source emotional causes** of the addiction.
- Treating **acupressure points** to reduce the physical dependency.

Dealing with the Source Emotional Causes

Addictions have their root causes (**programs and beliefs**) rooted in your subconscious (refer to Part 3, especially chapter 37).

These programs and beliefs are also triggered and aggravated by **emotional and stressful conditions** in your daily life.

The objective is to counteract the daily occurrence of stress conditions as soon as they happen.

You want to **concurrently discover, eliminate and replace the negative programs and destructive beliefs with positive ones** as described in chapter 15.

Acupressure Treatment

Stimulating specific acupressure points on the head, ear and hands has been found to reduce the craving for these substances.

There has been a rapid growth of clinics, especially in Canada, which offer “Laser Therapy” for weight control and to help stop smoking. “Laser Therapy” can include either the use of a low-power laser or a LED light device. They are both effective!

A person desiring to reduce their addiction should combine a consultation with their doctor with an initial visit to an acupressure/laser clinic. The acupressure clinic visit will:

- Familiarize you with the specific acupressure points used in their treatment.

- Allow you to use your own LED light device to stimulate the same acupressure points any time you feel the craving returning.
- Show you how to start using regular daily application during the withdrawal period.
- Provide you with other helpful hints such as vitamin supplements etc.

You can reference the treatments for these conditions in your own acupressure books and accomplish your own acupressure treatment as described in chapter 10.

Addiction Acupressure Techniques

- Always use the **pulsed light setting** to stimulate these points for 15 seconds each.
- Use **gentle pressure** if using a smaller LED light unit.
- Acupressure point locations for **food (weight) and tobacco (smoking)** are located on the hands. These points are at the ends of the fingertips. They occur at the top of the fingertips and at the base of the cuticles. The light beam will easily encompass the whole fingertip at the same time. These are also effective for other addictions.
- There are also points on the bottom of the wrist (in the center) and two points on the top of the wrist (each towards the outside).
- The “**drug point**” can be used for all addictions. It is located on the side of the skull (both sides), exactly in line with the highest point of the ear and three finger-widths above it.
- There are two points for **tobacco** addiction located in the front part of the ear that are easily activated by the light beam.
- In **alcoholism**, when drunkenness occurs, an additional point located exactly at the tip of the nose can be stimulated. It will have a rapidly sobering effect. But, be careful - it may cause vomiting.
- For **weight loss** (chapter 32), there are also points located all along the crest of your hipbones, around the edge of your naval and one inch below the naval. These points may be painful when pressed and you may feel it in your intestines. Slowness of intestinal function has to do with obesity.
- In addition, there are two **toxicity points** located in the back of the head at the base of the skull (each towards the outside). They will be sensitive when pressed. These can be utilized for other addictions.

Chapter 29 - Lymphatic System and Lymphedema

Lymphatic System Overview

The Lymphatic System is an **extensive drainage system** that helps keep bodily fluid levels in balance and defends the body against infections and the spread of tumors.

It is the **part of the immune system** that comprises a network of conduits, called the lymphatic vessel system. This system carries a clear fluid called lymph.

The lymphatic vessel system consists of conductive portions and lymphoid connective tissue. The lymphoid tissue includes nodes and other tissues that accomplish the immune response.

It is a **very slow moving system** that, unlike the blood supply system which is rapidly pumped by the heart, only gets power from its own passage contractions and external muscle compression or an external force (like massage or compression bandages).

For **more in-depth details** about the operation of the lymphatic system see the end of this chapter.

Lymphedema

Lymphedema is the swelling caused by the accumulation of lymph which may occur if the **lymphatic system is damaged or abnormal**. It usually affects the limbs but occasionally it can affect the face, neck or abdomen.

In some cases of breast cancer treatment, which required surgery and/or radiation, some of the **lymph nodes** under the arm may have been removed.

Potential side effects can include **lymphedema** (chronic swelling) of the arm, limitation of arm /shoulder movement and numbness of the upper arm skin.

Your lymph vessels normally siphon lymph fluid from the end of your fingers, through your armpit and into the main lymphatic route in your chest. During surgery and or radiation these vessels may be damaged thereby leaving the lymph fluid behind, trapped in the tissues and becomes arm becomes swollen.

Lymphatic System Problems

There are three types of problems with the lymphatic system that can be **helped by the use of LED phototherapy**:

- A physical situation causing a **sluggish, malfunctioning or impaired flow of lymph fluid**, usually resulting in swelling and accumulation of fluid in the nearby tissues.
- To boost an impaired or **reduced immune system** (chapter 25).
- When **portions of the lymph system have been removed**.

Types of Traditional Treatment

There are many reference sources¹⁸ that specify exercises and other methods to encourage and maintain lymphatic fluid movement. These can include wraps, cleansing methods, diet, detoxification and massage. The LED light¹⁹ can help supplement these methods.

Lymphatic System LED Treatment Techniques

- For soft tissue and muscle, use the slower pulse setting of the LED light. Use the continuous mode setting if there is pain.
- The smaller LED units are more suited for this application because pressure can also be applied. Large units are still effective
- Use the LED light in conjunction with a massage technique²⁰. Massage the desired lymph area with the hands to get muscle movement going.
- Follow up with gentle pressure using the LED light over the area. The pressure will move lymph fluid and strengthen the muscles, while the LED light will help regenerate the muscle cells and therefore improve contractions!
- Work problem lymph areas starting from the top of the body and working down.
- Spend at least 5-10 minutes per major affected lymph area – longer if you desire. Apply the LED light for 10-20 minutes whenever massage is not included. The larger LED units are very effective at this, due to their deeper penetration.
- The LED light will also help regenerate some of the functionality of the distressed nodes. Take advantage of the regenerative capability that helps to soften and increase flexibility in the cellular tissue.
- LED light travels along the lymphatic system like an optical fiber. This is similar to the way the LED light travels through the acupuncture/meridian system (chapter 10) and the reflexology channels (chapter 11). While you are working on one lymphatic area, the other lymphatic areas will get a secondary effect.

¹⁸ To locate the lymphatic areas, browse the Internet for Lymphatic System and Lymphedema or consult a reference book on the same subjects.

¹⁹ See Dr. Susan Lark's News Letter for Women for references on treating Lymphedema with Red LED Light.

²⁰ Consulting a Lymphatic System qualified massage therapist will not only help directly but it will also familiarize you with their technique and provide you with excellent instructions on the "what, where and how" details that you can perform yourself.

Further In-Depth Details about the Lymphatic System

Blood does not come into direct contact with cells and tissue.

It is first transformed into interstitial fluid which then contacts the cells.

The lymphatic system removes interstitial fluid from the cell tissues.

Lymph is the clear fluid that is formed when the interstitial fluid enters the initial lymphatic vessels of the lymphatic system.

The Lymphatic Vessel System is divided into the:

- Conductive portion carrying the lymph
- Lymphoid connective tissue through which the lymph passes on its way to returning to the blood and replacing the blood volume lost during formation of the interstitial fluid.

The lymph is normally moved along the lymphatic vessel network by a combination of **internal contractions** of the vessels themselves and **external compression** from skeletal muscle action. **External massage pressure** can supplement the normal muscle action.

The lymphatic system acts as a **filter trap** to catch causes of infection and other serious concerns and presents them to the immune system for resolution.

Lymphoid connective tissues are lymph nodes and other tissue that accomplish the immune response and contain lymphocytes

Lymphocytes are one of five types of white blood cells (leukocytes) produced from the bone marrow. White blood cells are transported to and from lymph nodes to the bones.

References

Please see the footnotes in this section for additional references that will also detail the traditional treatment protocols.

Chapter 30 - Routine Maintenance or How to Die Healthy

Many people have asked how they can use the photo therapy units on a regular basis to improve their health and energy as well as retain good mental functioning. They also like to follow the old adage “a stitch in time saves nine”.

The best approach is to use several of the techniques already described in previous chapters. Our list of favorite routines for regular health maintenance includes:

1. **Always have a LED light handy to apply to everything you eat, drink or put on your body** to alleviate all unnecessary allergen reactions. You can never be sure what is in any given product. The application of light is so quick. Just remember to do it! (see chapter 21 Food Allergies)
2. **Balance your body’s energy system once a day.** The best time is in the evening. Your daily activity, with physical and emotional interaction with people plus exposure to all sorts of radiation fields as well as frequently occurring stress conditions, is guaranteed to knock your body out of balance. Take the time to rebalance it before going to bed! It doesn’t take very long to accomplish. (see chapter 26 Balancing the Body’s Energy)
3. **Once or twice a week, boost your immune system.** A strong immune system can ward off many of the everyday conditions like a cold, flu, sniffles, bacteria, people with infections and other types of contagious circumstances you will definitely encounter. This will also help you keep your energy levels stronger (see chapter 25 Strengthening Your Blood and Immune System)
4. **Remove emotion and stress conditions that you are aware of that plague you.** Do not let them fester and further debilitate you. Don’t go to bed without attempting to relief the situations. (see chapter 15 Stress, Fear, Anxiety, and Emotion Release)

If you adopt these routine maintenance hints, you will be alleviating many of the medical and emotional situations before you need to use the photo therapy units for more serious problems.

Chapter 31 - Uses with Pets (Animals and Birds)

The LED phototherapy light is not limited to use on the human body. It can be **used on pets and animals to alleviate pain and speed healing**. In fact, the earliest uses in the United States and Canada were by veterinarians on racehorses, dogs, cats, and birds.

Animals actually sense and respond to the healing effect of the light quicker than do many people. They do not overthink what is happening. They naturally sense that it is helping them.

Pet Application Techniques

- For injuries or problems less than one inch deep, use direct application of any size light unit.
- Since animal fur and skin are thicker and tougher than human skin, it is highly recommended that larger light units be utilized for deeper light penetration.
- Another excellent application technique, especially with the smaller light units, is to use the acupuncture points. Diagrams showing the acupressure points of different animals (horses, dogs, cats, and cattle) are readily available in books and on the internet.
- Follow the techniques and instructions, discussed in the previous chapters, for both direct light application (chapter 9) and acupressure use (chapter 10). The light units may be held slightly away from the body if the animal is nervous.

Chapter 32 - Weight Loss

We have previously referred those persons interested in **losing weight** to the material found in:

- Chapter 15: Stress, Anxiety, Fear and Emotional Release
- Chapter 21: Food Allergies and More
- Chapter 28: Addictions – Tobacco, Food, Alcohol and Drugs

This material has been very useful over the years, in helping many people with some of the **underlining reasons** behind weight gain.

In today's world there are many causes of the **obesity epidemic** we are experiencing in the USA. These include food additives, genetically modified foods (GMO), pesticides, fertilizers, hormone altering drugs, and imitation foods with little nutrition and a lot of inert filler (junk foods).

The weight increase is most noticeable in the **body's midsection** – waist, hips and thighs.

We have been following the latest research using LED phototherapy light to **affect the actual fat tissue cells**. Low power laser units, operating at 635 nanometers (nm), have been focused directly on these areas of the body.

As you read in chapter 3, LEDs have the same effect as low power lasers, and with greater safety. LEDs in the mid-600 range (e.g. 660 nm) have similar effects on the tissue.

Although we do not have the many years of experience with this “**fat tissue**” effect, that we have with the other LED treatment protocols, we believe owners of LED Photo Therapy Units should be made aware of this technique and feel comfortable in using it.

Fat Cell Tissue Concept

Normally, when you apply the pulsed LED light to a damaged or diseased area it will stimulate the cell into an accelerated healing cycle (chapter 4).

In the case of fat cells, the cells are not damaged; they have **enlarged and multiplied to store more fat**.

Therefore, the light appears to activate a slightly different version of the cellular reaction.

Perhaps the cell considers an excess of fat in the fat cells or an excessive number of fat cells to be an **abnormal or dangerous condition** for the body and reacts to lessen the danger when activated by the light.

Fat Cell Research

Fat cells (adipocytes or lipocytes cells) store energy as fat. These cells start forming when we are young and increase in number, as we get older.

Fat cells can expand to hold up to four times the amount of fat they initially held. After the maximum expansion occurs, a new fat cell is then created. Once a fat cell is created, it seems to never disappear.

When you diet or use other methods to remove fat (e.g. liposuction) the cell size is reduced but the cell membrane remains and can later refill with fat.

It is harder to lose weight when you have more fat cells than it is when you have fewer cells that are enlarged.

The light appears to soften the subcutaneous fat and create a temporary opening in the fat cell membrane that allows the stored fat substance (lipid and fatty material) to drain out.

As the fat substance is released, the fat cell collapses and the tissue size diminishes.

There are still questions concerning the actual cellular mechanism involved in both the creation of the temporary cell membrane openings and the body's own ability to absorb the released fatty substance.

Regardless of the mechanism, the results can be seen.

Weight Loss Application Technique

- The larger LED units are better for this application because they cover more tissue area and penetrate deeper.
- The slower pulse setting is recommended.
- Use the direct tissue penetration technique found in chapter 9.
- A 40-minute treatment per day should be applied to either the waist, to a hip or to a thigh.
- Set up a revolving schedule so each day you work on a different area, Five days will cover the waist, two thighs and two hips.
- Apply the LED light for 20 minutes from the front and 20 minutes from the back.
- Take measurements before you start the initial treatment and monitor the changes every two weeks.
- Expect to follow this routine for several months and watch for results on an incremental basis.

Chapter 33 - Nasal Treatment with LED Light

There is an additional topic of using Low Power Laser Light to treat a wide range of medical problems by applying the laser to the **nasal passage**.

We discussed the use of LED Light as a safe substitute for Laser Light in chapter 3. **This also pertains to the application of LEDs through the nasal passage.**

However, this method of applying monochromatic light to the body may have additional benefit to the user and so we will describe the process.

The single LED type of phototherapy device is best suited for this specific application because its long slender shape can be easily inserted partially up into the nasal passage area, which is more than sufficient for adequate light penetration.

The nasal epidermis is very thin and there are many blood vessels in the mucous membrane. Since the blood flows slowly through this area, light can have a longer application period on a specific quantity of blood.

The various published reasons for applying light in this manner include:

- A good spot to accomplish blood irradiation.
- Re-establish balance (or homeostasis) by energizing the blood which then circulates through the circulatory and lymphatic systems.
- Reduce abnormal amounts of fat and/or cholesterol in the blood.
- Has therapeutic effects on a wide range of blood, immune, enzyme, and brain problem conditions; as well as types of toxic conditions.
- Improve general wellness.

Many of the research results have been found to be effective and so using this method of blood irradiation might appeal to people with medical conditions discussed in specific publications.

Therefore, our recommendations are:

1. If you are going to use this nasal light application approach for any reason - because you have read about it or it has been suggested to you – please realize that you can accomplish the technique with a safe LED light, rather than a laser!

2. The application time is similar to the laser procedures, but can safely be applied for much longer periods. A general guideline for LED application would be 10-15 minutes in each nostril once per day.
3. Also be aware that there are other areas of the body where the LED Light can be applied which will effectively penetrate into the blood stream – namely at the navel for the Aorta Artery (chapter 25) or at the Jugular Vein in the neck.
4. When dealing with Sinus conditions, this nasal application is not as effective as the techniques described in chapter 22 because we are not directing the light specifically into the sinus cavities. However, the LED light will still penetrate somewhat indirectly into the sinus cavities and therefore will provide some aid in helping sinus problems.
5. Keep in mind that when using this nasal application technique, it is only one method of dealing with your medical conditions and that there are other LED application techniques throughout this manual.

Part 3:

The Larger Story behind Medical Conditions

Chapter 34 - Searching for the SOURCE: The Mental & Spiritual Aspects of Physical Medical Conditions

So far in this manual we have discussed how to use LED light to help improve many types of medical conditions. The focus has been on using the light to treat the physical conditions by relieving the pain and then repairing and regenerating the cellular tissue. Along this main pathway we took a few side trips to discuss some mental and emotional issues and treatments (chapters 13, 15 and 26).

However, we must recognize that we are really only treating the symptoms or the end-of-the-line result of many of these problems. As a result, many of today's standard medical treatments and even the LED Lights have been used to affect a "repair and patch solution" (**although some very effectively**). The results may last for a shorter or longer period of time and very often reoccur or show up as a different medical condition. **Many times no lasting solution is forthcoming and we are faced with looking for an alternative of approaching our medical conditions from a totally different perspective than simply looking at it from a physical viewpoint!**

Alternative Perspective

The real sources, the actual causes, of these medical conditions are not usually even considered! Why is this? Part of the problem is despite many theories, **there is not a single widely accepted alternative concept** available to help direct us.

It has often been stated that **holistic** healing is available, but what does that mean. What parts of the **whole** person are involved?

Where do you go to look for the sources, the real causes? How would you recognize them? What could you do about them if you did find anything?

A fundamental and extremely important part in dealing with medical conditions is to first understand why and how they happen – **what is the Source!** By finding the source, only then can you work to achieve a lasting cure.

Locating the **source** of your conditions might appear at first to be difficult to you. However, **with the aid of establishing a Reference System**, you will find that it will become much easier. A **reference system** is a concept, a theory, or a model of your **psychological self**, to add to the knowledge of your **physical self**. **Understanding the reference system will provide you with a practical, understandable, and usable method of creating changes in your medical conditions!**

If you have a working knowledge of such an existing reference system which you are comfortable with, then use it. Just substitute your system's concepts in place of the following material and proceed with the medical condition correction techniques in chapter 38.

If you do not have such an existing reference system then we suggest you follow along with the concepts which we will now be presenting. Our experience over the past 25 years of using this information has shown that it works very well. These concepts have been obtained from many different sources whose authors have an amazing understanding of their material. The core or key portions of these concepts have been compiled together in a cohesive and easy to understand approach for the readers of this manual. For those who wish to explore each of these concepts in more depth, there is additional material.

Alternative Reference System

Since we are now entering the realm of your mental, emotional, psychological and spiritual activity, it is imperative to **establish a basic reference system for “understanding an alternate explanation of the way life functions”**.

We will introduce you to a “greater awareness and understanding” of **how much your Mind and Beliefs affect your body, and that of the world and events around you.**

This information is basic to being able to **actually change the medical conditions that you do not want or need anymore.** This wonderful information pertains to all aspects of your life, although **in this manual we have focused on the medical implications.** The reader can further expand their knowledge by referring to the additional material.

The main pieces of this “**reference system**” include:

- Establishing a **concept of our Mind** and describing how it functions (chapter 35).
- Understanding **what is Reality and how the Mind is involved** (chapter 36)
- Defining how **we function in terms of our Beliefs** (chapter 37).
- Understanding **how these Beliefs create our Personal Reality** (chapter 37).
- Utilizing these concepts to **affect change in our Medical Conditions** (chapter 38).

In short, you will learn how your **mind**, based on your **beliefs**, can **create the physical reality of your medical conditions** and to use this knowledge to “**correct the medical problems**”.

It is “mind altering” to realize that we can and do create our own reality, events, relationships and problems, including our physical, mental and emotional medical conditions. To be introduced to these ideas, to experience them, and then ignore this fact is like putting on blinders. Why do that!

Using the Alternative Reference System

The method for seeking the sources of your medical problems and correcting them is available.

The concept of how this process works is already known and has been used for a long time. Once you understand the process, very often you just need to follow the pertinent clues, signposts and feelings.

Increased awareness is all that is required.

For example, **asking the following questions can provide you with considerable insight** about what is really going on **subconsciously** behind your conscious awareness of your medical condition:

- Where is the problem located in the body?
- What does the condition consists of?
- What effect is having on you?
- What limits does it present in your life?
- What major events were going on in your life when it first appeared?

We need to learn how to pull back the curtain covering our conscious and subconscious processes and become more aware of how they function. This is the only way to fully deal with solving our problems! If we have a grasp of these concepts and understand how the real cause and effect takes place, then you can correct, guide and control what happens in your life much better.

The interesting aspect of this approach is that applying your LED light can play an integral part of altering these processes and correcting the source causes as we initially discussed in chapter 15 and will discuss further in chapter 38.

It's now time to learn the details of our "Reference System" so that we can proceed to affect changes to our medical conditions.

Chapter 35 - What is Mind and how does it function?

We are used to relating to our physical body with its brain, heart and other organs and to its many ailments and medical problems. The concept of the **Mind** is more elusive. We don't know where it is located, what it is or how it functions with respect to the physical body. We can accept though, that something is directing the activities of our physical body.

It is therefore imperative, as part of our Reference System, to develop a “model” of how our mind is constructed so that we will have a mental basis of understanding its functions. We can then develop a method, which involves the mind, for implementing the process of change. Many theories and models abound about the mind. We have found from experience that the following concept fills this need nicely, is easy to understand and works very effectively.

The Mind

The **mind is a single consciousness yet it has three distinct facets or parts** and we know that **it is not located in the brain!** The **brain is like an “onboard specialized computer”** tool directing the physical body. The **brain carries out the intent and instruction of the mind**, resulting in physical, mental, emotional and spiritual activity.

The **three parts of the Mind** consist of:

- The Conscious Mind
- The Subconscious Mind
- The Super conscious Mind (Spirit)

Each of these parts of the Mind has a very distinct set of functions and duties. They rely on each other's capabilities and have continual interaction. We find that using the analogy of relating our body to a ship is helpful. We are now ready to introduce the mind's “cast of three characters” that are involved in running the ship called our body (with the aid of our brain).

Conscious Mind

This part of the mind acts like the **captain** of our ship (body) and its functions are:

- Making decisions (from impressions supplied by the subconscious)
- Expressing itself by speech, writing and dramatization
- Recognizing cause and effect (using deductive reasoning)
- Determining a cause from observing its effects, then forming conclusions and finally applying logic (using inductive reasoning).

- Exhibiting will power
- Communicating with the subconscious by verbal, internal voice, illustration and example
- Using the subconscious to communicate with the super conscious, such as in making a prayer (chapter 39).
- In terms of computer speed, it operates at **40 bits per second**.

Subconscious Mind

This part of the mind acts as the **crew** of our ship (body) and its considerable variety of functions include:

- Being the storehouse of all memories, beliefs and programs.
- Controlling all the functions of the physical body
- Generating all feelings and emotional reactions.
- Receiving impressions from the five senses (and their extension into space and time which we call extra sensory perception or ESP)
- Presenting the impressions to the conscious mind for evaluation.
If the conscious mind does not react to these impressions, the subconscious will evaluate the impressions according to its prior stored programs and beliefs. The results may end up stored as new programs or memories that are either valid (rational and logical) or more likely as invalid (irrational and illogical). This is often the source of “misconceptions”. These erroneous evaluations remain as “complexes” or unresolved (irrationalized) programs, usually unknown or unaware to the conscious mind. These **faulty beliefs** will remain and complicate your life until they are recognized and rationalized and then removed or replaced by a positive belief program (chapter 37).
- Expressing or communicating itself by non-verbal means – thoughts, emotions, feelings, symbols (as in dreams), visual images in the brain, body language and doodling.
- Communicating with and supporting both the conscious mind and the super conscious mind²¹ (but not always cooperatively!).
- Providing energy to the body via the intake of oxygen (breathing) and food. Correctly applied deep breathing builds up the strongest energy potential you can generate! You just need to know how to use it! (see chapter 39)
- Being influenced by hypnotic suggestion.
- Receiving and transmitting of psychic phenomena.

²¹ The Pineal Gland, located in the center of the brain, has historically been viewed as the physical connection to the higher vibrational realm where creative, inspirational and intuitive thought originates. It has also been noted, via photon measurement, that the pineal gland produces (or redistributes) its own internal light despite being isolated within the center of the brain. Where does that light come from? The Pineal Gland operates like a two-way communication device (organ) between our higher vibrational realm and the lower mind, body and brain.

- In terms of computer speed, it operates at **20 million bits per second**.

Super conscious Mind (Spirit)

This part of the mind, in our ship analogy, is equivalent to the **ship's homeport** which has the overview of the entire ship's pre-planned route, the actual voyage and all the conditions that can potentially affect the trip. Its functions include:

- Being the direct connection²² with the God Force and corresponding creativity.
- Acting like a benevolent parent in overseeing the development of the conscious and subconscious minds.
- Having a broad understanding of the effects of the past, the present and partly into the future (usually near term only). The longer term future can always be altered by our free will choices, decisions and actions!
- Possessing awareness of the whole and complete picture involved with our life at any point in time.
- Communicating with the subconscious, by intuition, dreams and ideas. There is no direct connection to the conscious mind from the super conscious, only through the subconscious (chapter 39)!
- In terms of computer speed, it is **instantaneous or Omni-present**.

The Mind in Action

We have established a working concept of the mind, its different parts, and how it functions. **We now have to recognize the role that the mind plays in creating the end results of our thoughts, actions and what we say.** Only then will we have the guidelines to be able to consciously, and with intent, control the happenings in our life and to affect changes in it, including our medical conditions

When these three facets of the mind are working together smoothly your life is running smoothly. When things are going wrong in your life it indicates that part of this mechanism is faulty and you need to determine what it is. This is not a course in psychology. There is additional material for those interested in investigating further. We have listed several that are particularly informative.

The point we want to get across is **“to understand that the mind is involved with creating the real actions and reactions that lead to subsequent medical conditions”**.

²² Refer to footnote 21 “The Pineal Gland” on the previous page.

References:

- The “Huna” series of books by Max Freedom Long
- The “Modern Huna” series of books by Serge King
- “The Source Field Investigations” by David Wilcock

Chapter 36 - What is Reality?

We are **used to believing** that our reality is something that is created outside of ourselves and we have no control over it. However, if we retain this concept we will never be able to affect any changes to these conditions ourselves. So it is in our best interest to explore this **alternative viewpoint of reality**, especially **if results show that it works**. The alternative viewpoint is that **“we create our own reality from within our mind and therefore we can alter it!”**

Having been introduced to the different features of the **Mind** in chapter 35 we can now discuss the concept that describes the process of **how our mind functions to create our personal reality**.

Creating our Three-Dimensional Personal Reality

Mind is the builder; mind is the master – *Edger Cayce*

Thought precedes and governs all material manifestation and events.

Our physical reality is created by the energy and power of thought. **We always experience a thought, an idea, or a visualization first (as a pattern) which then results in the generation of the physical matter, actions and events in our three-dimensional (3-D) world.**

As an example, when dialing a telephone, each number has to first appear as a thought from your mind before you press the button – **try it!**

Our 3-D world is just part of a multi-dimensional universe. The majority of the universe is not just empty space. Rather it consists of higher vibrational energy levels that exist outside of the known electromagnetic spectrum. Our mainstream science, with our current technology, cannot yet measure this. They will eventually be able to provide instrumentation to detect and understand the physics of these higher vibrational dimensions. It is already showing up in quantum physics. In the meantime, we can work with the information and demonstrated results of the many investigations and studies provided by non-mainstream science and the metaphysical community²³. These higher vibrational energy levels or dimensions have been referred to as the aether (ether), the source field, dark matter, antimatter, cosmic energy and many other names. We will refer to the oldest description, **aetheric**, for simplicity in our Reference System, since this has been used for thousands of years.

²³ References:

The series of Seth books, by Jane Roberts, specifically “The Nature of Personal Reality”.

The series of books by David Icke, specifically the latest volume “Remember Who You Are”.

The series of Hillarion books, by Adam Cooke, specifically the volume “The Nature of Reality”

“The Source Field Investigations”, by David Wilcock.

When thought (which is energy) is projected forth from the mind, a force is created within the higher aetheric dimension which then constantly seeks to bring that thought force down into physical three-dimensional manifestation.

The more you concentrate on your thought, the greater the amount of high vibration energy is attracted to your thought form. Energy flows where attention goes. The more energy that is attracted and collected within a thought form contributes to its lowering in vibration (condenses) until the thought form solidifies enough to become the 3-D physical matter and events that we can see, hear and touch with our 5 physical senses. **It is important to grasp and understand this concept of vibration levels with energy and thought preceding physical matter.**

How Reality Functions – Vibrations, Frequencies and Waveforms

Vibrations are simply oscillations about some equilibrium point.

The number of vibrations per time period (usually in seconds) is called the vibration frequency (e.g. vibrations per second) or “rate of vibration”.

Everything in the universe vibrates. This has been established by science as part of the quantum theory. The slower the vibration rate the denser the material and the higher the vibration rate the lighter and more transparent the object appears. We normally experience only those vibration rates starting at the mineral level and increasing to the plant, animal and the human level. This does not preclude the fact that consciously we may be unknowingly experiencing these higher vibration levels. **Certainly thoughts, ideas, and visualizations are examples of the higher vibration energy levels that we cannot see but we are aware that they exist.**

As a further limitation, we humans perceive only a very small portion of the known electromagnetic spectrum. We see only the small visible-light-wavelength portion of this whole E.M. Spectrum (chapter 1).

We know that other vibrational wavelengths exist in the E.M. Spectrum that we cannot perceive, but we can experience, such as radio, TV, microwave, radar, cell phones and wireless computer networks. These invisible wavelengths (waveforms) are all around us and **occupy the same space that we occupy, at the same time (Quantum Theory has shown that even atoms can exist in the same space at the same time).** Existing technology has allowed us to **condense these higher vibrations and convert them to (virtual) images and sounds that we can perceive.**

Our concept of reality is what we perceive in our normal limited range of wavelengths (waveforms) within the visible light spectrum, plus what has been **“virtually converted”** by our technology from other E.M. Spectrum vibrations into our range of vision.

The mind is not part of our physical body. The subconscious portion of the mind communicates and functions with thoughts, mental pictures, ideas, emotions and feelings which occur at a higher vibration rate. **Again, that is why we cannot see thoughts, etc., but we know they exist!**

Reality then is what we perceive it to be, within the limited 3-D spectrum (wavelength range) in which we exist.

An Analogy: comparing Human Reality with the Virtual Reality of the Computer and Internet

Many of man's technological innovations since 1865 have been to extend his 5 physical senses (see, hear, smell, taste, and touch) into what may be called a form of "technical" extra-sensory-perception (ESP) technology. The telephone, camera, television, satellite, movies, radio, etc. have allowed us to technically project our perception and awareness to a greater distance and also to perceive time differently. Someday we will again relearn how to do these ESP functions ourselves using our own mind and it will be taught as part of our basic education system.

Having also worked in the computer field during its evolution over the past 50 years I have continually been amazed at how this computer technology structure is similar to the human structure. It technically mimics how we biologically operate in our daily life. It is often said **that the answers and explanations to our questions about life are right in front of us.**

In this case we can use computer technology as an analogy to help in explaining how we function in creating our own reality.

The internet cloud, as it is called, is a depository (memory) of vast amounts of data that is invisible-to-our-eyes. It is the World Wide Web (www) of information. This data does not exist in the form that we see it on our computer screens. It really consists of vibrations and wave forms. It takes our computer to interpret the bits and bytes of data and transform or convert it to a visible form that we can see. **What we are viewing on the computer screen is a virtual created reality; it does not exist in that form on the internet!**

Now let's relate this information, about computers and the internet, to how we create our own human reality.

Our mind combines with our body and we function just like a super biological computer. The three parts of the mind (chapter 35) perform the various computer functions.

- The **subconscious** acts like the **internet** in that it collects information and stores the raw data (bits, bytes and wave-forms) **obtained from our 5 senses** (and technically expanded senses), in its memory bank.
- It also retains creative ideas and thoughts **from higher vibration sources** through its connection²⁴ with the **super conscious**, which in turn is our connection to the god force that permeates all.
- When we **consciously** need or desire some form of this information, the subconscious converts and transforms the stored raw data so it can be projected to our conscious self either internally (via our mind's eye) or **externally as a picture on our human biological version of a computer screen** so it can be readily seen.

THAT BIOLOGICAL SCREEN HAPPENS TO BE THE WORLD THAT SURROUNDS US! THIS IS OUR PERSONAL REALITY!

The world outside of our mind is our biological computer screen. It is a virtual reality picture generated from inside of our mind. Just like our computer screen is a (virtual) picture of the raw data inside of the internet memory, **our reality is a (virtual) picture of the raw data from our mind's subconscious memory.**

Our world outside of the mind is meant to be to serve as a reference point – a mirror if you will, of your inner self. This includes all your physical world and events including your body and any resulting medical problems.

You can change the situation that you are experiencing (your personal reality) by consciously examining the nature of your thoughts, feelings, emotions and beliefs. You can then change these and project the correction. We can change our reality by changing our beliefs in the same manner that we can change whatever is on our computer screens by accessing a different web site or running a different computer program!

We are born into this material existence knowing full well within our sub-conscious that the world is an external mirror for our own thoughts, feelings and actions. We understand at our deepest level that what surrounds us, in terms of the circumstances of our life, is merely the reflected mirror image of the actual states of being which are found within ourselves.

The question often arises that if we each create our own personal reality, how come we all see some form of a common reality? The answer is partly that we all share a great number of commonly acquired beliefs as we enter this world and proceed with our learning and experiences. These beliefs form our reality both personally and in common (chapter 37). It may also be possible that we all share a part of

²⁴ Also refer to discussion of the pineal gland in chapter 35 of this manual.

our minds together with each other. The concept that we are all just parts of the whole. Just as individual cells make up our body, our bodies are the cells of a larger body called the human species.

Our Reality

This material is designed to help each individual solve their own medical and other personal problems. Learning more about the way you form your own reality allows you to understand the methods by which you can alter your reality to your advantage.

Experiences in life are the product of:

- our **mind**,
- our **spirit**,
- our **conscious** thoughts,
- our **subconscious** thoughts, emotions, feelings and beliefs.

These together form the **reality** that you know. **You are not being affected by conditions outside of yourself. You initially created those conditions from within yourself.** We are so locked into experiencing the physical events in our life - **that we are not able to separate these physical events from the thoughts, expectations and desires that preceded and created them.**

If you don't like your experiences; if you are assailed by physical difficulties; if you begin to wonder what is wrong; you can remedy the situation by altering the nature of the thoughts and expectations that you are creating. **Every thought has a result.**

If you are in poor health, you can remedy it. Hopefully this reason alone will motivate you to **re-think how reality is formed**, if only to **help solve your own medical problems**. Healing is facilitated by understanding, accepting and using the following concept:

- That physical matter is formed by your inner self that gives it energy;
- That physical structure follows belief;
- That physical matter, at any time, can be changed by **activating the creative capability inherent in your mind.**

Reality is created by the **energy and power** of thoughts, emotions, feelings and beliefs. The process works like this:

Thoughts combine with Emotions to produce Beliefs/Feelings that in turn create Reality. Beliefs are just a strong special type of Feelings.

Be aware of the consequences of our thoughts and beliefs – we have to live with the reality of them.
We see and feel what we **believe** we see and feel. **Our world around us is a picture of our beliefs.**

The Modern Scientific Concept of Reality – Quantum Theory/Physics

What current scientific discoveries might help us to further get our heads around the reality concepts we have been discussing? Namely, that the attributes of our mind can change the physical reality around us! The answer is Quantum Physics.

Prior to the past few decades, science has been ruled by classical physics, where all matter is considered solid including the atomic structure with its atoms, nucleus, electrons, and molecules. Now science has discovered quantum physics, **where solids are found to be not solid at all, but really just vibrations or frequencies at the atomic level!**

Vibrations are created from energy, primarily electro-magnetism and gravity. These vibrations pulsate very rapidly and change as the source of energy changes. In addition, when they pulsate they do not always reappear in the same spot in space-time. They can also reappear in more than one location, at the same time. **What we think we see and call a solid, is now described in terms of a vibrational “possibility”! This means that applying energy to the vibration of the atomic structure (of everything in our existing reality), will cause the vibration to change and therefore change the resulting physical reality that we experience!**

Guess where “one source of energy” can come from? – Our thoughts, emotions, feelings and beliefs (a special form of feelings)!

- Thoughts, emotions and beliefs create electrical and magnetic waves;
- That can change the energy;
- That forms the atoms (vibrations) of our world;
- And therefore can change that world with unlimited possibilities!

This **one source of energy** is substantiated by another aspect of quantum theory which acknowledges that an event is affected by the person viewing the event! In other words, the viewer can affect what happens by the thoughts and choices they make. In fact, the stronger the beliefs, feelings and emotions involved the stronger the effect. It seems again it is true that: “energy flows where attention goes”. **That energy is flowing from your mind and your consciousness and sub-consciousness are directing it.**

Science is now just starting to understand the concept we are describing here in that we create our own reality with our mind. They are beginning to identify the mechanics involved. The choices we make can alter our reality, including our medical conditions! **A change in our beliefs can change our reality!**

Now that we have acquired a different concept of reality and how this reality is formed, it is time to discuss the controlling factors that create this reality - OUR BELIEFS.

(Special Note) Outside Intrusion and Obstruction Affecting Your Reality

Prior to moving on to the next chapter, it is important to take a moment to make you aware of how your **personal reality could be altered** from outside of yourself – outside of your conscious awareness!

This additional information is not meant to concern you. Rather it is meant to make you further aware of the possibilities that exist, as you become more knowledgeable about the capability of your mind to create your own reality.

Our physical reality is created naturally from the beliefs within our own minds via thoughts, emotions and feelings. Although these occur within a higher vibration level of the E.M. spectrum, they are still vibrations and waveforms.

In our previous discussion on vibrations we noted that today's technology can “**convert**” those higher E.M. spectrum vibrations, which we cannot normally perceive, into that which we can see. Thus it could subsequently become part of our physical reality.

Eventually, technology will be able to “**create**” waveforms in this higher vibration level and potentially **introduce thought forms that did not originate from within your own mind**. Some thoughts you have and their resulting reality may not be of your own making – and this can be a difficult situation to recognize – a tough call!

We do not know if those vibrations and waveforms are being created or converted factually or if they have been altered, thereby **changing our view of reality**. Are we seeing the true picture? **We only have our conscious and intuitive mind to discern the difference** – which is again a tough call!

In addition to intrusion there is also the fact of obstruction. Normally we can potentially have access to everything that exists in our universe, just like we can potentially have access to all the data on the internet, unless some obstacles or blocks are technically introduced that **restrict us** to some of that internet data! Obstacles or blocks could be externally introduced as beliefs!

Chapter 37 - The Impact of Beliefs

We have just discussed how our mind creates our reality. That reality is preceded by our thoughts, ideas, beliefs, feelings, emotions and visualizations (picturing). **We form the pattern of our life's experiences through our conscious and subconscious Beliefs and expectations.**

What are Beliefs?

Personal beliefs are ideas about our self and the nature of our reality. We consider these beliefs as “facts” and the beliefs in turn affect our subsequent thoughts, emotions and **behavior**. We may be somewhat blind about our own beliefs. A clue to this is when we find our self emotionally refusing to acknowledge certain new thoughts and ideas that come into our mind because they conflict with our existing ideas. Beliefs can be fences that surround us.

Let's go back to our analogy of the three facets of the mind in chapter 35. The captain (our conscious self) has to navigate the ship (our body) through our daily life. The captain relies entirely on the crew (our subconscious) to provide good information and data so that he/she can make the best decisions concerning everything that is happening with us.

The subconscious projects the needed data to the screen that we call our reality (the world around us). The conscious captain perceives the reality screen (our outside world) and makes the decisions accordingly. As the captain requires more data the process is repeated and the reality screen changes. The process is a continuous feed-back loop. This is how our perceived reality continually changes like the moving frames of a movie.

If the data from the subconscious is distorted, wrong, incomplete or faulty then the reality picture reflects this and the conscious captain makes incorrect decisions and things go wrong in our life.

Beliefs are the prime source of the thought projection that creates reality. If the conscious captain (us!) doesn't like the results, then we need to correct the faulty beliefs in order to receive better data and affect a better outcome.

How do Beliefs Function?

Beliefs are just energy programs in our subconscious similar in concept to a computer program or to an individual website on the internet. They are formed as you evolve in the womb (even before), created heavily from birth to age seven, and continue to be created at a reduced rate after that. It is often said that our basic personality and beliefs are fixed by age seven or even earlier. Beliefs are “triggered” by current events in our lives. This leads to the activation of often irrational emotional energy and feelings pre-programmed within the negative belief. We previously discussed the example of the “cat” belief program in chapter 15.

Beliefs contained in both our conscious and subconscious minds are constantly creating the very conditions in which we live. We have an indeterminable number of beliefs operating at all times and these continually create our reality as we know it

Positive and negative beliefs follow the exact same process. Our subconscious doesn't know the difference. They just create a different result.

Negative beliefs and programs are obstacles to the creation of our desired world. We need to discover and change them. Our conscious thoughts can be great clues in uncovering them. Thoughts let us see where we are heading. **What exists physically existed first in thought – period!**

Adverse conditions in your life are due to faulty belief programs and this includes your medical conditions.

Faulty (Negative) Beliefs

Again, beliefs are like individual websites or computer programs! Negative beliefs are obstacles to the creation of what we desire to see and experience in our life as reflected on our personal reality screen around us.

We can change our reality by changing our beliefs in the same manner that we change what is on our computer screens by accessing a different web site, correcting the faulty program code or by running a different computer program entirely.

Our subconscious has access to all the data we would ever need, but if we are restricted from obtaining some of this available information by obstructions (faulty beliefs) then our perception of what actual reality could be, is compromised. Just like if we were restricted to which web sites we could display on our computer screens or which computer programs we could run.

The Impact of Negative Beliefs

When a negative belief has been “triggered”, the body's left and right brain hemispheres are “disconnected” (out of balance). The Chee energy that flows through body's meridian system is also disrupted (blocked and thrown out of balance) (see chapters 15 and 26). The thoughts, feelings, emotions and (importantly) expectations, emanating from this negative belief then proceed to create your **specific undesirable reality!**

Identifying and Correcting Negative Beliefs

Negative beliefs play such a large role in bringing about many of our medical conditions. **Correcting these faulty programs** can be extremely helpful in **improving existing** medical problems and

preventing future medical conditions from manifesting! The following chapter 38 discusses how we can go about accomplishing this process.

Positive Beliefs

We are normally quite happy with our positive beliefs, which usually don't require changing, since they generally result in our desirable reality

However, integrating the following positive beliefs into our awareness will allow us to improve upon our existing reality:

- We are not limited – a fact that exists regardless of our belief or disbelief in it.
- We have no boundaries and we are never separate – those that we experience are the results of false beliefs.
- We make our own reality – our environment is the physical picture of our thoughts, emotions, feelings and beliefs made visible. Our entire physical environment is the materialization of our beliefs.

Chapter 38 - Correcting Medical Conditions: Identifying and Correcting Negative Beliefs

Arriving at the Source

In chapter 34 we talked about searching for the real sources, the actual causes behind our medical conditions. Now we have found them! **They are located within “negative belief programs” stored in our subconscious mind.**

We have previously described, via a “Reference Model”, **the basic process of how we and our world function. This was presented in terms of concepts about the mind, beliefs and our reality** (chapters 35, 36 and 37).

It is now time to discuss correcting the faulty belief programs and to reverse the adverse conditions in our own lives:

- We first need to identify the negative beliefs.
- Then we need to eliminate the negative belief programs.
- Finally we need to replace them with positive beliefs.
- This will then create a change in our reality (in this case our medical conditions).

Our task is made relatively easier because we have already discussed the basic techniques to accomplish this in chapters 13, 15 and 26 with the help of LED photo-therapy units.

The really important fact to remember is that this is not a course about positive thinking. Most of those courses usually don’t understand the nature and strength of negative feelings, aggressions or repressions or how to handle and deal with them.

Methods for Identifying Negative Beliefs

We now can suggest several methods of identifying and locating the un-wanted beliefs that lie behind our medical conditions (and any other type of adverse conditions in our life). As they say, identifying the problem is 80% of the solution.

Feel free to use combinations of the following methods or approaches to achieve your goal of identifying beliefs. Once they have been located you can use several belief correction techniques.

Keep in mind that it is not necessary to know the specific details about the negative program or where this negative belief originated. We just need to recognize that it exists; that it is functioning; and that it is

adversely affecting you! Remember, Energy flows where attention goes. Energy/Emotions and Feelings are what help to change beliefs.

1. Your medical conditions are just another portion of your reality that you have created.

As such they are **mirroring back** to you specific information that you can act upon to help identify the conditions. We should thank these **signposts** in our life and focus more fully on the information they can give you.

2. Your specific medical condition plus the use of corresponding questions will help identify beliefs that are involved or point you in the right direction. Typical questions include:

- Where is the problem located in the body?
- What does the condition consists of?
- What effect is having on you?
- What limits does it present in your life?
- What major events were going on in your life when it first appeared?

If you have a hip medical condition as an example, then ask yourself “what impact is this having on your life.”

Hips are the physical focal point of your body’s forward motion. Possibly your condition may be keeping you from psychologically “moving forward” in some area of your life. It indicates that there are one or more negative beliefs that create this condition.

Possible negative beliefs that might be involved could include:

- “I don’t deserve to get what I want to accomplish”;
- “I’m afraid to leave where I’m at for something new and unknown”;
- “What if I fail”

3. Find the connections to your beliefs. You can be aware of your emotions, feelings and thoughts and trace them to their source beliefs. Follow the clues. Remember, the trail you are analyzing goes from:

- **Thoughts (Ideas)** plus
- **Emotions** to
- **Feelings/Beliefs** to **Reality** (what you are now experiencing)

4. When medical situations (and all adverse situations) occur in your life, get past the initial tendency of anger, frustration and blaming your usual reasons. Instead start by asking the questions:

- Why do you **believe** this happened?
- What is the result of this happening?
- What were your **thoughts** just before and during the situation?
- What **emotions** are you **feeling** now?

These are clues to what negative belief programs are operating. These beliefs are faulty or you would not be experiencing this situation! Follow the clues back to the beliefs and then change them!

5. Another method was discussed in chapter 13 using Applied Kinesiology Techniques.

Only this time the questions will focus on beliefs. This method is very effective for getting to the heart of the belief problem more quickly. Just remember to orient your questions for a YES or NO response. State your belief and expect a yes or no answer.

An analysis of your beliefs can be obtained by using a standard list obtained from the references listed below. They can also be determined as a result of having a talk with yourself and writing down your personal negative and positive beliefs concerning your health conditions (as well as personal conditions).

6. Note: **Be aware of conflicting subconscious responses**

The **faulty beliefs are contained within, and often emotionally protected by, the subconscious.**

When you are using Applied Kinesiology to get **answers from the subconscious** (to help identify and eliminate these faulty beliefs) you might get a “conflict of interest” from the subconscious!

The subconscious may intentionally answer in a confused manner, which will be quite obvious in the muscle or pendulum responses being erratic. You will have to reorient your questions to get around this sensitive issue of multiple or conflicting beliefs quandary.

Techniques for Eliminating Negative Beliefs

The following techniques are an outline of general approaches. More extensive details on these techniques can be found from the reference material below.

1. We have previously discussed using one approach in chapter 15 with the stress, anxiety, fear and emotion release technique. In that technique, we connected the source of the stress from your outside world, with the location of the discomfort inside your body (very often this is your medical condition). Then we reconnected and rebalanced the left and right hemisphere of the brain. We were in essence

eliminating or reprogramming a negative program without really knowing what the program was or how we acquired it!

2. Rebalancing the body's energy by rebalancing the body's meridian system (chapter 26) is also highly recommended as part of this process of eliminating the negative beliefs you have identified.

3. A very simple technique to eliminate a negative belief program is to just become consciously aware of it by any method. Then the solution becomes more apparent. What you need then is the **strong desire** to change it. This simple approach can work wonders.

4. Another effective approach of eliminating negative belief programs is through the use of whole brain balancing techniques. These techniques can be found in the references below.

5. To correct negative beliefs we must have a strong emotional reason to change. Change is difficult. **We need to have the will to change** instead of clinging to existing status created by the negative belief. **We also have to feel that we can change - that it is possible!**

One way is to look at the situation logically. Negative beliefs are faulty programs just like a faulty computer program. They can be corrected by changing the computer code therefore, we can change the subconscious program faults when we identify them.

Another way is see that others have already accomplished out of the ordinary (miraculous) changes. We know it can be done because it has! Cancer remissions are a prime example.

The key is to treat the situation as if the belief change and corresponding medical change have already occurred. Also refer to chapter 39: Using Prayer.

6. An approach that continues on from item 2, of the above section on Identifying Negative Beliefs, is to proceed with answers to the following questions. Also refer to reference 5 for further information.

- This medical condition limits me in what way?
- How would I like to function?
- How will I feel then?
- What can I accomplish then?
- Finally visualize the results already completed!

Dealing with all Beliefs

Although the methods in this chapter were aimed at correcting medical conditions it should be obvious they can be used to correct any facet of problems in your life.

The really important fact to remember is the concept of Beliefs and how they determine your Reality. Even if you do not utilize LED photo-therapy in the identification and correction process, there are many other ways to accomplish this. **YOU ARE WHAT YOUR BELIEFS ARE!**

References:

- The Biology of Belief, by Bruce H. Lipton Ph.D.
- Psych-K: The Missing Peace in Your Life, by Robert Williams M.A.
- Psych-K Workshops, The Myrddin Corporation, www.psych-k.com
- Brain Gym series
- The Spontaneous Healing of Belief, by Gregg Braden

Additional Technique for Correcting Medical Conditions

This is a “virtual-hands-on” technique utilizing your visualization capabilities, the understanding that you create your own reality, along with the knowledge that your body’s cells are replacing themselves continually.

Concept 1 - that in seven years every cell in our body has been replaced! We are **totally a different physical person** than we were seven years ago. Our physical body changes continually, but our consciousness remains the same, so we are not aware that this change is going on. Every cell dies off at some point and is generally replaced by a similar cell. It is at this point that it is possible to potentially alter the replacement cell.

Concept 2 – Just as we have consciousness, every cell in our body has its own consciousness. This allows us, in concept, to communicate with our own cells!

Concept 3 – Putting ourselves into a relaxed meditative state with our eyes closed allows us to “visualize” easily. We can then picture or sense our self as a miniature person traveling within our own body. We can now proceed with the following technique:

1. Accomplish concept 3 above.
2. Visualize or sense your miniature self, travelling to the location of the medical condition you wish to correct.
3. Initiate a conversion with those cells that you believe will help in correcting the medical condition. Then describe what you want them to do.
 - Example A – you wish to get rid of a growth. You can picture immune system cells destroying the unwanted tissue or picture the bad cells dying off and replaced by a good cells.

- Example B – you wish to have an injured area healed. You can picture new stem cells rushing to the area.
 - Example C - you wish to regenerate the mal-functioning of an organ or process. You can picture the body mobilizing its natural corrective action.
4. **The important thing is to communicate** with and direct the cells with exactly what you want accomplished. **Creating a visual picture of the corrected medical condition is a very effective way of communicating that desire.** Remember that energy flows where attention goes!
 5. You will want to **provide the energy, emotion and strong desire** to see this happen. The chapter on Prayer (38) provides a more detailed description of developing this energy. **Expect the results to occur!** Remember you are creating your own reality with your beliefs. Then give thanks, gratitude and love to your body and all the cells for their help.
 6. You can also supplement the work of your cells by visualizing the hands of your miniature self physically working to repair, restructure, eliminate, or heal the medical condition. Use your strong creative capability and beliefs.

These techniques can be used in conjunction with standard medical treatment.

An important point to remember is that as your body continually replaces cells reaching their natural lifetimes, or when they are damaged or become abnormal cells, that **the replacement cells can be re-programmed by you to become normally functioning cell tissue.**

These techniques provide another actual physical example of a method for “creating your own reality”!

Chapter 39 - The Use of Prayer

The Concept of Prayer

We direct Prayers to God to ask for divine intervention into worldly events.

In this manual, we are considering helping only the area of mental and physical medical conditions of the reader, although the prayer techniques discussed here can be applied to all areas of your concerns in life.

The Effectiveness of Prayer

How often do we pray to ask help for the improvement of our medical condition? Sometimes we get results and sometimes we don't. Maybe if we take what we have just learned (about the mind, beliefs, and reality) and we apply it to our prayers, we could improve the results that we obtain.

Prayer Technique

- Prayer is directed to the god force to accomplish a request for a change to something in our material world including medical conditions.
- Our super conscious is our direct connection to the god force.
- The only link from our conscious self (the one that is formulating the specifics of the request) to the super conscious, is through our subconscious.
- When we formulate our prayer with conscious intent, we have to do it in the best manner for the messenger (the subconscious) to deliver the prayer. Remember that the sub-conscious works with images and visualizations.
- The best manner is to first visualize (picture) what you want very, very clearly. Obtaining the end result you want is helped by creating extremely concise details as you form the picture in your mind. Hold this image while you continue.
- Next you want to develop considerable energy to “charge” the picture. Accumulate this “energy charge” by slowly taking 3 to 5 deep breathes in a controlled and regular manner (e.g. inhale to a count of 4, hold for a count of 2, exhale for a count of 6, hold for a count of 2 and repeat). As you do each exhale, picture the accumulated “energy” flowing into the picture. Repeat this step at least 4 times.
- Emotions and feelings carry great energy. Your heightened emotional involvement produces extremely effective results!
- Even greater emphasis can be placed upon your expectation of the prayer results by treating the requested prayer as if it were already accomplished! Use all of your senses to taste it; smell it; see it; touch it and hear it! It is as if you are already living with the results including the feeling and emotions that go along with the results.

- At the conclusion, thank your super conscious for having accepted this prayer and for starting the process of having it materialize in the reality of your personal world. Believe that the request is taking place in the natural course of time.
- You may repeat this specific prayer again at a later time if you wish. Just make sure you use the same exact picture
- Avoid or eliminate any negative or doubting questions that may arise – expect it to happen! Never re-picture the problem condition after this, always picture the expected end result.

Roadblocks to Prayer

This brings up the question as to why some prayers do not seem to be answered!

When you are first creating the picture, make sure that the request is framed for the best and highest interest of all the individuals and factors involved.

Also, if you feel in any way that you do not deserve this request you must first resolve these feelings. Remember that feelings (emotions) are within the realm of your subconscious and you need the subconscious willingness to carry your prayer to your super conscious! The very fact that you have this “feeling” indicates that there is a negative program or belief stored in the subconscious that needs to be changed first. If the subconscious is feeling guilty it will not go before the super conscious with the prayer request!

One of the ways to accomplish eliminating the roadblocks, is to refer back to the techniques described in chapter 15 (stress, anxiety, fear and emotion release) and chapter 38 (correcting medical conditions and more).

Another way is to remove any guilt feelings by making amends. This can be done in many different ways. You will know you have succeeded when you have achieved a balanced or neutral emotional feeling about the condition.

Once the roadblocks are removed the prayer can proceed.

Part 4: Additional Treatment Cross Reference List

In this reference manual, we have discussed many treatment techniques and protocols for a wide range of medical conditions as listed in the **Table of Contents**. In addition, we are often asked this question:

“Does the LED light help with this ??????? problem?”

This part of the manual is included to answer some of those questions.

Most of the topics listed below use the standard protocols referred to in Chapter 6: General Application Techniques. Even if some of your problems are not listed here please refer to that chapter for guidance.

Adrenals	see chapter 10, Auricular Points
Adhesions	Pulsed setting - see chapters 9, 19
Alzheimer's	see chapter 24
Asthma	Pulsed setting for cell repair- Solid setting during asthma attack – see chapters 7 to 12 and 15
Bacteria	Build up your immune system – see chapter 25, 29
Blood Pressure	see chapters 12, 25
Bone Fractures	see chapters 7, 8, 9, 12
Bruises	see chapters 7, 8, 9
Burns	see chapters 7, 8, 9, 12
Bunions	see Adhesions
Candida	see chapter 25
Chronic Fatigue Syndrome	see chapter 12, 15, 25, 29
Circulation	see chapter 25, 29,
Constipation	See Diarrhea, except use Pulse setting– see chapter 10
Dementia	see chapter 24
Depression	see chapter 2, 15, 37, 38
Diabetes	Treat the side effects at the individual areas (e.g. eyes, toes, fingers, etc.) – see chapter 6
Diarrhea	Solid setting application to the acupressure point at indentation on the outside area of where the arm and shoulder joint come together see chapter 10
Energy Lack	see chapter 25, 26, 29
Fibro Myalgia	see chapter 7, 9
Gout	see chapter 7, 12
Hearing	Pulse setting – see chapter 8, 9, 10, 12
Hemorrhoids	see chapter 9, 12 – Also look into getting a Thermo Therapy Rectal Heat Unit
Hernia	see chapter 8, 9, 10, 12
Hyperactivity	see chapter 15, 26
Insomnia	see chapter 15, 26

Itching	see chapter 7, 19
Kidneys	see chapter 8, 9, 10, 12
Lung	see chapter 7 to 12
Lyme's Disease	Treat the side effect and symptom areas – see chapter 6 to 13
Menstrual Cramps	see chapter 7
Moles	see chapter 9, 19
Organs	See individual organs, if listed. Otherwise see chapter 6 to 13
Parasites	Build up your immune system – see chapter 25, 29
Plantar Fasciitis	Stay off of your feet as much as possible and wear soft slippers – see chapter 7, 8, 10, 24
Port Wine Stains	see chapter 8, 9
Pregnancy	The LED light is safe to use during pregnancy
Prostate	see chapter 7, 8, 9, 12 Also get a Thermo Therapy Rectal Heat Unit
Psoriasis	see chapter 19 Also look into treatment with ultra violet light
Rotator Cuff Injury	see chapter 7, 8, 12
Seasonal Depression	see chapter 2 (also see Depression)
Scar Tissue	see Adhesions
Tennis Elbow	see chapter 7, 8, 12
Teething Pain In Infants	see chapter 7
Throat	see chapter 7, 8, 9, 12
Thyroid	Pulse for low thyroid and solid for high thyroid – see chapter 9, 12
Tinnitus	see Hearing
Trigger Finger	see chapter 7, 10
Wounds	see chapter 7, 8, 9, 12

Part 5: Light Therapy Combined With Stem Cell Therapy

Concept

An exciting new application of LED light therapy is quickly emerging. Namely, the use of LED and low power lasers in the rapidly developing research field of Stem Cell Therapy.

The majority of research involves dealing with stem cells outside of the body (in vitro). LED light activation provides the distinct possibility of dealing with stem cells already in the body (in vivo).

This potentially provides a safe technique of encouraging the body's own stem cells to aid in the healing process in a natural manner.

This technique is so new that very little experience with it has at yet been obtained. However, the concept:

- Follows the adage of “do no harm”;
- Is based upon published basic stem cell and LED information;
- Incorporates LED techniques already described in this manual;
- Also follows the concept of encouraging and empowering the body to do what it does naturally.

First, we need to develop some basic knowledge and understanding about stem cells.

Stem Cells

Stem cells are undifferentiated biological cells that can **differentiate into specific specialized cells needed to repair given traumatized (injured) tissue**. The cells can then divide through mitosis to produce more cells. There are two types of stem cells: Embryonic (which we are not concerned with in this process) and Adult (which are found in various tissue). Adult stem cells act as a repair system for the body, replenishing traumatized (injured) tissue.

Stem cells lay **dormant** within locations such as bone marrow, fatty tissue (adipose), blood (vascular) and connective tissue. When any part of the body is traumatized (injured), a **natural process immediately commences (in a currently unknown way) and the body automatically proceeds to:**

- **Activate stem cells from their dormant state and into the blood stream**, to assist in the natural repair and healing process.
- **Increase the number of stem cells.**
- **Differentiate the stem cells** into becoming the desired cells to replace the damaged tissue.
- **Direct the stem cells to the needed location** (bio-location).

The directing of stem cells, in this natural process, is aided by the fact that they are attracted to Cytokines and Chemokines, **which are small signaling proteins secreted by the traumatized tissue cells**. These proteins help attract and control the migration of stem cells and other cells during tissue maintenance and development.

The natural mechanism of stem cell response to a trauma event happens very rapidly and peaks over time. Therefore, **older chronic conditions** may not elicit the same stem cell response because the problem condition has now evolved and is perceived by the body as a static or normalized state. We then need to find a way to **re-stimulate the production of stem cells in the body**. This type of stimulation will also be of benefit for the regular acute traumatized conditions as an addition to the body's natural response.

Adult Stem Cell Therapy

Adult stem cell therapy is a fast changing technology applied to the increased healing of medical problems in the body by attempting to manipulate stem cells. Generally, **stem cells are removed from the body (in vitro)**, isolated, treated, increased, activated, differentiated and reinserted in the body in hopes of delivering them to the right location.

What is needed is a method of stimulation that will activate stem cells in the body (in vivo) rather than outside of the body (in vitro). **There are natural products that have this capability to affect or increase stem cell activity!**

Photo-modulation with light is one technique that has been involved with the increasing, activating and differentiating phases of stem cell therapy. However, this activity also **occurs primarily outside of the body and requires medical procedures**.

LED light, which has been demonstrated to **stimulate DNA in damaged tissue within the body** (chapter 4), **can also help “trigger” or “stimulate” the body’s natural stem cell responses** (especially in chronic conditions). It can also prompt the damaged tissue to produce the Cytokine and Chemokine signal responses, **similar to the natural response of the normal “trauma induced injuries”**.

This type of stem cell therapy together with LED light therapy can provide an effective safe method of treating medical conditions while in the body (in vivo) rather than outside of the body (in vitro)!

LED Light Therapy

Many LED Photo-Therapy application techniques have been described in this manual. Several of these techniques are uniquely suited for combining them with a specific approach of Stem Cell Therapy. **This will contribute yet another important approach to increase the rapid regeneration of damaged cell tissue.**

The benefit is that increasing, activating, differentiating and directing (bio-locating) adult blood stem cells can be **safely accomplished within the body (in vivo) by again taking advantage of the body's normal and natural healing processes.**

These existing light therapy application techniques we previously discussed are:

1. **Directly treating the damaged area with LED light** (Chapter 4 – How LEDs Affect Cellular Tissue and Chapter 9 – Using Direct Tissue Penetration).
2. **Creating a Homeopathic Remedy from and for the damaged area, using LED light and water** (Chapter 12)
3. **Applying the LED light to the bloodstream via light penetration at the best access points to the body's Aorta and Cardiac arteries** (Chapter 25 – Building up the Blood and Immune Systems).

It should be re-empathized that the LED light, when applied to a damaged area, **is activating the cellular DNA** in the problem area (Chapter 4). This accelerates the body's natural healing process including **repairing the damaged cells plus promoting the creation of new cells** (mitosis).

It is also extremely important to be aware that the process of repairing damaged cells is **reflected in the energy patterns emanating from the problem area** (Chapter 12). The cell's normal energy radiation pattern is changed when it gets damaged (as an example, there is more heat and infra-red radiation detected). As the problem area heals, the energy pattern continually reflects this improvement and likewise continually changes. This becomes important in the creation of the homeopathic remedies, which then reflect the most current healing state of the problem condition at this point in time.

Combining Stem Cell Therapy and LED Light Therapy

Again, it is a good idea to incorporate stem cell therapy with LED light therapy in the treatment of **current traumatic or acute medical problems**, as well as applying it to **older, chronic and cosmetic conditions**. This is due to the possibility that a person's stem cell reserve may not be great at this point because of the nature of their medical conditions as well as other factors.

- **The simplest version** of this process is to **treat a problem condition directly with LED light** (chapters 4 and 9) and to **also apply the light to the bloodstream, through the naval (aorta artery) or neck (cardiac artery)** (chapter 25).

This extra application will then “stimulate any already available stem cells” in the bloodstream, which were produced automatically by your body.

This version does not create new stem cells – it strengthens the existing stem cells.

- The next level version of this process is to promote “additional stem cell production” with the application of a natural stem cell activating product²⁵ ahead of time.

This would both free additional stem cells from their dormant condition location and allow the stem cells to multiple.

You would then proceed with the simple version above.

This still relies upon the body’s natural mechanism (which at this time is unknown) to complete the stem cell differentiation (what the stem cell is to become) and destination (where the cell is to go).

- **The most complete version of this process is to further help the “stem cells to differentiate into the desired cell type and to bio-locate to the desired location”.**

The stem cells need an “instruction” for these two functions. The instructions could be a message, a code or a **pattern** that can perhaps **simulate the body’s natural mechanism!**

One form of this “energy pattern” can be obtained directly from the damaged medical problem area – namely the “energy radiation signature” obtained when making a Homeopathic Remedy (chapter 12)!

Homeopathic remedies are normally taken by drinking them as described in chapter 12.

In addition, this same homeopathic remedy can also be used to transmit the energy pattern (originally obtained from the cells of the medical problem area) to the DNA of the stem cells in the bloodstream! This energy pattern would provide the “instructions” to the stem cell as to what type of cell it is to become and where to go.

This is accomplished by simply inserting the homeopathic remedy container between the artery access points on the body and the LED light shining on the bloodstream through these points (as discussed in the simple version above and in chapter 25). Use the same amount of time as specified in chapter 25.

What we are saying is that the LED light beam can be used for two purposes:

- **As a carrier wave to receive the energy pattern radiating from the cells in the medical problem area and to deposit that energy pattern in the homeopathic remedy solution.**
- **As a carrier wave to transmit energy signals or patterns from the homeopathic remedy to the DNA of the stem cells in the bloodstream²⁶.**

²⁵ There are several products available in the market place (among these are Phytoplankton and Blue-Green Algae). Follow the manufacturer’s dosage instructions for the specific product you select. This will bring the stem cells up to their naturally replenish-able level. Initial dosages could be slightly higher for serious cases, if specified by the manufacturer.

²⁶ We also believe that there are other potential sources of “patterns”, which can be transferred to the DNA of the stem cells in the bloodstream – but that research is still underway.

This concept is further supported by published research has shown that both the DNA and its related energy pattern can be transferred between organisms using light²⁷.

Using Stem Cell Therapy and LED Light Therapy

We have perceived the extensive research activity into the **general field** of stem cell therapy and also its **specific goal** towards treating the stem cells while they are still in the body (in vivo). We have also been aware of the significant role that lasers and light-emitting-diodes (LEDs) are playing in this research.

There is no doubt that in the near future this research will lead to an increasing availability of knowledge, information, techniques, processes and yes - **products!**

This knowledge will include: an increasing awareness of; recognizing the significant importance of; and the practical application of - **several energy concepts now just being understood by mainstream scientists!**

Therefore, we encourage you to continually be aware of developments via the internet and any publications pertaining to these topics.

In the meantime, we have presented some practical and safe methods of potentially achieving results today using what is easily available now – namely LED phototherapy lights, natural products and instructions.

²⁷ The Source Field Investigations, by David Wilcock.

Part 6: LED Light Therapy for Alzheimer's

What is Alzheimer's Disease and Dementia?

Alzheimer's is a progressive neurologic disorder that causes the brain to shrink (atrophy) and brain cells to die. As this **physical disease** gets progressively worse it can lead to memory loss and cognitive decrease that is referred to as a **syndrome** called Dementia. 60 % to 80% of Dementia cases are caused by Alzheimer's disease.

The remaining cases of Dementia not caused by Alzheimer's and can be researched are:

Vascular (second leading cause), Lewy, Front Temporal, Hypothyroidism and Chronic Subdural Hematoma Dementias. Also see section of this article on Application Technique.

In Alzheimer's disease the **communication connections** between the nerve cells (neurons) inside the brain are affected. Protein builds up between the neurons, communication connections are lost, the neurons die and brain tissue is lost. The abnormal protein buildup is called **plaques and tangles**.

Generally, symptoms start with forgetting recent events or discussions and progress to memory impairment and inability to carry out daily activity.

There are many websites on the internet that explain Alzheimer's disease in detail. An example of one is

www.mayoclinic.org/diseases-conditions/alzheimers-disease/symptoms-causes/syc-20350447

Also see references at the end of this article.

Light Therapy History

Starting in December 7, 2016, an article by Anne Trafton from MIT News (Massachusetts Institute of Technology) presented a paper titled "Unique visual stimulation may be new treatment for Alzheimer's". "Noninvasive technique reduces beta amyloid plaques in **mouse models** of Alzheimer's disease". It also appears in December 7, 2016 issue of "Nature" by author Li-Huei Tsai and Ed Boyden.

The discovery used **LED light** pulsing at 40 Hz (hertz) for the one-hour stimulation.

Since then, there has been an explosion of research articles related to this topic up to today (2022) including the **use in humans** with Alzheimer's.

Our perspective

The research study used an array of “White LEDs” which flickered (pulsed) at a rate of 40 Hz (cycles per second). This was solely to stimulate the normal brain rhythm (called the Gamma Oscillation) which had been diminished in brain tissue involved with Alzheimer’s conditions.

We observed that the use of the “Red LEDs” in place of the white LEDs would be much more effective **because the Red LEDs would actually stimulate and repair the DNA in the affected cell tissue as well as still producing the 40 Hz effects that were seen.**

Therefore, persons using a 660 nm (nanometer wavelength) light therapy unit with a pulse rate of 40 Hz could duplicate and improve the results shown in the MIT study. This can be done quite safely with the type of LED devices described in this manual.

We will be describing in a simple manner the process involved **so that an average person owning a LED device with Red 660 nm LEDs and a 40 Hz pulse option can conduct their own treatment in a very safe manner.**

Understanding the normal brain process

We start with identifying neurons that are located in the Hippocampus area of the brain which is located directly behind the eyes in the frontal lobe of the brain. This area is critical in attention, perception, memory formation and retrieval.

The brain neurons generate electrical signals to other neurons that are synchronized to form brain waves. Groups of neurons are coordinated by a process called Gamma Oscillation, which operates at 40 Hz Frequency. When this gamma oscillation process is working well the brain’s memory and retrieval system is also working well.

This means brain proteins such as Beta-amyloids and Tau proteins are functioning normally.

What happens in Alzheimer’s

Brain proteins fail to function normally which creates toxic conditions, damages the neurons, eliminates communication between cells and leading to cellular death.

Alzheimer’s patients also have impairments of their gamma oscillation frequency.

Substances such as Plaques and Tangles are excessively created.

Amyloid Plaques are **unusual clumps** of a protein called beta-amyloids that appear in the spaces between neurons, have a toxic effect on neurons and disrupt neuron cell-to-cell communication.

Tangles are made up of a protein call Tau that appears inside a neuron and are part of a transport system carrying nutrients. These tau proteins change and create structures called neurofibrillary tangles which disrupt the transport system and are also toxic to the neurons.

Gamma oscillations normally keep the plaques and tangles under control, but these proteins tend to accumulate in the brains of people with Alzheimer's, which also exhibited a diminished Gamma Oscillation.

Also, the normal job of clearing out beta-amyloid proteins is accomplished by immune cells called Microglia. In Alzheimer's patients, microglia become inflamed and toxic, affecting other brain cells and not clearing the beta-amyloid proteins.

The actual cause of brain cell death is still unclear, although the role of plaques, tangles and microglia plus toxicity appear to play a major role. The knowledge and use of pulsed 40 Hz LED light to stimulate the Gamma Oscillation and improve these conditions appears to have added another important way to treating Alzheimer's.

Using flickering white LED lights

A light source was needed to create application through the eyes. White LEDs were considered bright enough to penetrate through the eyes and into the Hippocampus. The **sole reason** for a panel of LED lights was to create the pulsing rate of 40 Hz.

By using an outside stimulation, via a pulsing rate equal to the brain's own 40 Hz gamma oscillation rate, it would be inducing (or entraining) the brain's weakened gamma oscillation rate. Thereby strengthening and maintaining the 40 Hz gamma oscillation rate.

Therefore, during the treatment period, the body would be producing the 40 Hz gamma oscillations and would be improving or helping reduce the production of the plaques and tangles and improve the microglia.

Also, it was hoped that the improved condition would continue when the treatment was completed. This turned out to be a reasonable result, as indicated by extending the treatment protocol.

So basically with the improved gamma oscillation, the reduction of plaques (beta-amyloid production from the neurons) and tangles (within the neurons) started occurring and the microglia started to improve and provide their normal cleanup activity of amyloids.

However, the **brain cells** (neurons), that were affected and damaged by the previous negative effects of the diminished gamma oscillation, **were not changed**.

This is the reason that the Red LEDs are recommended. Because they could **stimulate the DNA in cellular tissue**

Replacing with red LED lights

The Red LEDs have two advantages.

One is that they could penetrate up to 8 inches deep into the tissue and through the skull. It did not need the excessive brightness of the white LEDs to go deep enough

Second, it could stimulate the DNA in the damaged brain cells, thereby improving or correcting their damaged condition.

At this point we would like to re-emphasize that **Red LED light (at 660 nm) stimulates DNA at a cellular level in damaged cells** as pointed out extensively in **Chapter 4 of the manual***. This accelerates the cells natural healing process in repairing damage plus promoting the creation of new cells.

***The Amazing LED Reference Manual located at www.ledsforhealth.com**

Since the Red LEDs are **pulsated at the same 40 Hz**, all of the improvements shown with the use of white LEDs would be retained.

But a lot more would be accomplished because the Red LEDs would regenerate cell tissue. Whereas the white LEDs have no effect on the DNA in the cell.

Application technique:

- Use 660 nanometer (nm) LEDs
- Use a Pulsing rate of 40 Hertz (Hz)
- The standard treatment would be one hour with the LED Unit placed about 12 to 18 inches from the eyes.
- Best technique is to sit in a chair close to a table. Place the light unit on the table at eye height.

An alternative technique is to lay in bed on your side with your head on a pillow. Prop the light unit against another pillow 12 to 18 inches in front of your face. You can keep your eyes open or closed. No problem if you fall asleep and the treatment lasts longer than a hour.

Repeat the process two times per day

Establish a baseline memory condition by identifying the persons primary Alzheimer's symptoms.

Gauge the improvement in memory every two weeks

Special Exception: for persons that have already progressed to the state of Dementia from Alzheimer's. Replace one of the two daily treatments of the 40 hertz pulse rate with a faster 17028 Hertz pulse if available on your Light Therapy Unit (fast pulse).

This exception also applies to persons having Dementia from causes other than Alzheimer's (see section one of this article).

Warning: Do not use this therapy protocol if the person is affected by epilepsy!

Pulse rates from 10 to 20 flashes (pulses) per second could trigger a reaction in a person with epilepsy.

This is not a danger when using the 40-hertz pulses per second rate in this therapy, as shown by its use with medical hospitals in their research!

However, it is better to be safe if you are an epileptic!

Latest research information

Browsing the Internet disclosed four new things that have appeared over the period from 2016 to current (2022).

The first thing was that there were articles about light therapy and Alzheimer's disease involving the use of **Red Light LEDs**

The second thing there were more research articles relating to the use of LED light therapy and Alzheimer's disease **in humans**, rather than in lab animals such as mice.

The third thing was that a **combination of therapy modalities** was being combined to deal with Alzheimer's. Using pulsating sound at 40 Hz frequency was combined with LED light pulsing at 40 Hz.

Lastly, there are just more articles on Alzheimer's and Light Therapy

References

References include hospitals, government, colleges and private research studies

1. 2016, Refer to second section of this article.
2. MIT News, March 14, 2019, Anne Trafton, Brain Wave Stimulation may improve Alzheimer's Symptoms. Exposing mice to a unique combination of light and sound.
<https://news.mit.edu/2019/brain-wave-stimulation-improve-alzheimers-0314>
3. [www.cell.com/cell/fulltext/S0092-8674\(19\)30163-1](http://www.cell.com/cell/fulltext/S0092-8674(19)30163-1), VOLUME 177, ISSUE 2, P256-271, E22, April 04, 2019, Multi-sensory gamma stimulation ameliorates Alzheimer's-associated pathology and improves cognition, Auditory gamma entrainment using sensory stimuli boosts hippocampal function
4. November, 2020, Does Red Light Therapy Help Alzheimer's Disease?
platinumtherapylights.com/blogs/news/red-light-therapy-alzheimers
5. NPR, August 1, 2022, Jon Hamilton, Alzheimer's Researchers are looking beyond Plaques and Tangles for new treatments. <https://www.npr.org/sections/health-shots/2022/08/01/1113825311/alzheimers-researchers-are-looking-beyond-plaques-and-tangles-for-new-treatments>.
6. Mount Sinai Research: www.mountsinai.org/about/newsroom/2021/could-a-novel-light-therapy-help-people-with-alzheimers.
7. U.S. Department of Health and Human Services: <https://www.alzheimers.gov/clinical-trials/light-and-cognitive-therapy-alzheimers-disease>
8. Mayo Clinic: <https://www.mayoclinic.org/diseases-conditions/alzheimers-disease/symptoms-causes/syc-20350447> .
9. Kaiyan Medical: www.kaiyanmedical.com/post/new-research-on-alzheimers-plaque-breakdown-with-light-therapy

Summary and Conclusions

We have now gained a better **understanding** of the general concept of light, identified the different types of light and what effect each of them can have on our bodies. Our focus then explored the **interaction of single wavelength light with the cellular tissue of the human body**.

Once it was determined that the **single wavelength produced by a LED was equal to the effect of a low power laser on cells** and that it could be applied with greater safety, it opened up a **whole new world of helping to solve many of our physical and emotional problems**. Just how large the scope of this **new world** turned out to be, is illustrated by the extensive general and specific application techniques discussed in this reference manual.

The LED light works most effectively on acute and recent conditions – **the sooner applied, the faster the results!** The consistent and persistent usage of LED devices can also show amazing results on chronic problems over time.

While the application of LED light does show an effective improvement in the physical status of problems, many times the recurrence of the same or similar conditions disclose that there are **significant underlying causes to many (if not all) of these problems – The Real Source**. Thus, we were introduced to the concept of where this Real Source of our problem conditions might lie – **In the negative beliefs that we hold in our subconscious!**

This is the larger and extremely important **story behind medical conditions** that was explored in Part 3. In this section we gained an understanding of the mind, the conscious, the subconscious and beliefs, plus a very important alternate concept of reality. More importantly, we learned about **changing these negative beliefs!** Even in this area, the LED light can effectively help us accomplish these changes.

Finally, in Part 5 and Part 6, we took a look into the **practical applications available now** for the rapidly approaching future process of **combining LED light therapy with the exciting field of stem cell therapy in the body (in vivo), and LED Light Therapy for Alzheimers**. This further increases the number of approaches we can bring to correcting medical conditions.

Continue to use **THE AMAZING LED** light to help yourselves in so many ways!

Love and Light,

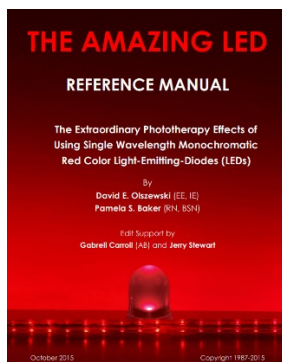
Dave and Pam

Appendix 1 - OTHER BOOKS

I have disseminated new information, including lecturing and publishing, over my life. The following represents that fulfillment.

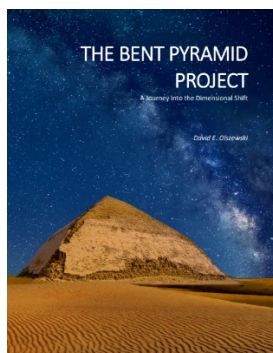
Books written by Dave E. Olszewski:

The Amazing LED



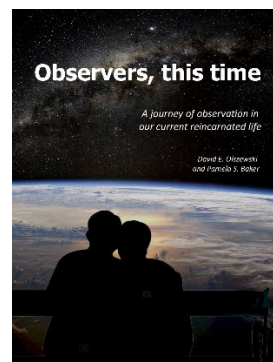
“The Amazing LED,” an additional book by D.E. Olszewski, covers the topics of light, health, and healing using light-emitting-diodes (LEDs). It can be found at www.ledsforhealth.com.

The Bent Pyramid Project



“The Bent Pyramid Project: A Journey into the Dimensional Shift,” an additional booklet by D.E. Olszewski, covers the unusual events occurring in the world around us today. It can be found at www.bentpyramidproject.com.

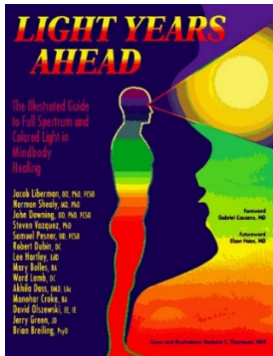
Observers, this time



Observers, this time, is both an autobiography of Dave and Pam’s lives and as observers in our current reincarnated lifetime. Request a PDF copy using the [Contact Us](#) form.

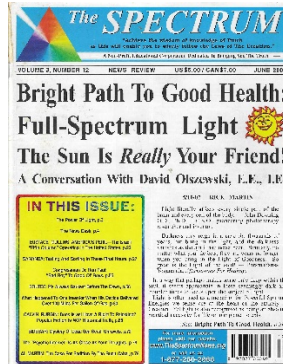
Books featuring Dave E. Olszewski:

Light Years Ahead



“Light Years Ahead” by Brian Breiling. Dave contributed to the chapter on Sunlight, Light, Artificial Light, and LEDs.

Spectrum Magazine



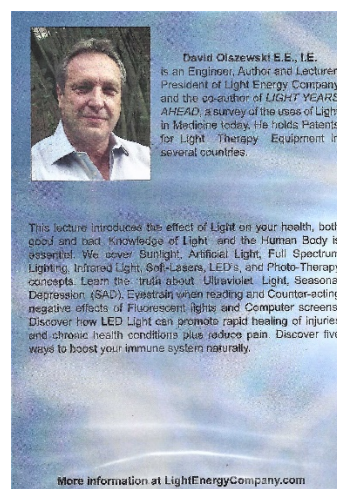
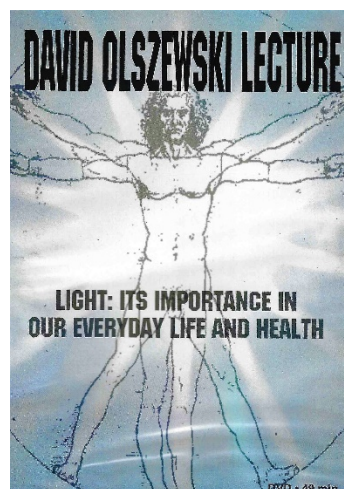
An interview with Dave was featured in the magazine “Spectrum,” which dedicated most of the issue to his information on “Light.”

50+ Various Lectures



Lectures were on” The Practical Applications of Light,”: including Sunlight, Light, Artificial Light, and LEDs.

DVD of a “typical” David Olszewski Lecture:



Dave Lecture DVD, Front and Back