

Quantum Light Therapy

Medical Evidence Shows that Red and Infrared Light Each Release of Nitric Oxide from Hemoglobin. Why is This Important?

1. Nitric Oxide Improves Circulation at the Site of Treatment

- **Nitric oxide increases blood flow to injured or damaged tissue.** It dilates vessels which are already present at the site of light treatment and increases the formation of new capillaries. These additional blood vessels replace damaged ones. New capillaries speed up the healing process by carrying more oxygen and nutrients needed for healing and they help to remove waste products.
- **Nitric oxide stimulates the production of collagen.** Collagen is the most important common protein found in the body. Collagen is the essential protein used to repair damaged tissue and to replace old tissue. It is the substance that holds cells together and has a high degree of elasticity. By increasing this form of collagen, less scar tissue is formed at the damaged site.
- **Nitric oxide stimulates the production of adenosine triphosphate (ATP).** ATP is the major source of energy produced by cells. Increases in ATP allow cells to accept nutrients faster and get rid of waste products faster. Increased delivery of oxygen and nutrients to cells enhances cell ATP production thereby providing the chemical energy that maximizes cell function

*Other Effects of Nitric Oxide

- **Increases lymphatic system activity.** Research has shown that the lymph vessel diameter and the flow of the lymph system can be doubled with the use of light therapy. This effect enhances removal of lymph and interstitial fluid which can cause swelling and pain. Nitric oxide also helps to increase the number of lymph vessels much like it grows new capillaries.
- **Increases RNA and DNA synthesis.** Cells must replicate (multiply) before new tissue is formed. A doubling of DNA, which occurs in the presence of nitric oxide, precedes cell division. This helps damaged cells to be replaced more promptly.
- **Reduces the excitability of nervous tissue.** Nerves deprived of oxygen and nutrients (and therefore ATP) are overly excitable. Nitric oxide, much like morphine but without the side effects) can also suppress pain signals directly.
- **Stimulates fibroblastic activity** which aids in the repair process. Fibroblasts are present in connective tissue and are capable of forming collagen fibers.
- **Increases phagocytosis,** which is the process by which white blood cells (WBC) scavenge dead or degenerated cells. These events must occur before the healing process can take place.
- **Induces a thermal like effect** in the tissue. Increased flow of blood (at 98.6 F) to the skin at the site of treatment and production of ATP itself both raise the

temperature of tissues although there is little heat produced from the diodes themselves.

- **Stimulates acetylcholine release.** Acetylcholine has important parasympathetic nervous system effects. Among these is local vasodilatation and improved gastrointestinal peristalsis.

2. Nitric Oxide Decreases Pain and Numbness in Extremities

The Quantum Light Therapy Equipment offers hope for those patients suffering from neuropathy, including neuropathy, in their legs, feet, wrists and hands. The quantum Series delivers safe and effective infrared and visible red light that has been clinically shown to improve circulation in the extremities. Each subsequent treatment builds on the improvements gained during the prior treatment session so patients experience steady improvements in sensation and decreased (ischemic) pain. However, The Quantum series does not stand alone as a therapy anymore than does hot packs and heating pads. It must be part of a comprehensive therapy plan. When coupled with standard physical or occupational therapy treatments, The Quantum Series Light Therapy Equipment can improve the quality of life for patients and clients who suffer from the ill effects of neuropathy.

One additional effect of local increases in nitric oxide, even without a measurable increase in circulation, is its effect on ion channels in nerves. Specifically nitric oxide improves the physiologic activity of ATP-dependent potassium channels and in this manner mimics almost exactly one of the effects of the patent pain medicine, morphine. This may be an important consideration for the therapist who is faced with attempting to treat a neuropathy patient or client who has extreme pain.

Patients and clients with diabetic neuropathy may eventually develop gait and balance needing to rely on an assistive device for ambulation. Proprioceptive changes affect their gait pattern and ability to properly weight shift balance. The patient's normal body locomotion often changes. These patients have decreases in ROM, not only at the ankles and feet, but also in the knees, hips, and trunk. When patients experience changes in proprioception, gait pattern, and balance, they also lose strength. This can result from walking with an altered gait pattern that is decreased from its normal range. It can result from changes in sensation since patients are unable to judge the amount of motion occurring in the distal extremities. It can also result from decreased activity due to pain and discomfort, or fear of falling. Some diabetic patients and clients may also experience debilitation secondary to the presence of diabetic ulcers and decreased skin integrity, which can interfere with weight bearing activities. While neuropathic symptoms are encountered less frequently in the wrists and hands, patients and clients can still develop a wide variety of deficits in their use and function as a result of diabetic neuropathy. Luckily, physical therapy along with light therapy can help.

Benefits of 'The Avalon Effect' Light Therapy

There is Strong Evidence that Photonic Light Therapy Cause: At Least 24 Positive Biological Changes at the Cellular Level, and Supplies the Body with Non-Invasive Healing

- Increases Circulation of Blood & Lymphatics (Releases nitric oxide from hemoglobin which initiates the healing process. Nitric Oxide is Produced which dilates the vascular system. Watch Dr. Thomas Burke's You Tube on Nitric Oxide on This Site.)
- Stimulates Collagen production and increases elasticity of skin, promotes cell regeneration
- Increases Lymphatic System Activity
- Stimulates Release of ATP (Adenosine Triphosphate) energy center of the cells
- May Reduce & Alleviate Pain and Inflammation
- Reduces the Excitability of Nervous Tissue
- Stimulates Fibroblastic Activity that Aids in Repair Process
- Increases Phagocytosis, the Process of Scavenging and Ingesting Dead or Degenerated Cells
- Induces a Thermal-Like Effect in the Tissue
- Stimulates Tissue Granulation and Connective Tissue Projections (healing process of wounds, ulcers or inflamed tissues)
- Stimulates Acetylcholine Release from Certain Nerves~ Activates Parasympathetic Effects of Heart Vasodilatation and Improves Gastro-Intestinal Peristalsis
- Stress Reduction, relaxes Sympathetic Nervous system

Patients & Clients May Experience:

- Decrease in Local Swelling, Decreased Inflammation, Decreased Muscle Spasms and Tightness
- Decreased Tension, Increased Range of Motion, Increased Lymphatic Drainage, Increased Venous Dilation and Flow
- Diabetic Patients and Clients with Peripheral Neuropathy May Experience Increase in Sensation to Pressure and Hot/Cold.

More Benefits & Important System Info

500 Diodes of Light/Covers Wide Body Surface Areas Decreasing Amount of Sessions Needed

(Research shows 120 Diodes Increases almost 4x the Nitric Oxide of 30 Diodes of Nitric Oxide Produced in the Body...Greatly enhanced increase with 500 Diodes!)

- Flexible Neoprene Pads/Unlimited Positioning with Velcro for Targeted Areas (Large Body Pad, Local Pad & Face Mask) For Manufacturer Specifications See Either User Manual or Practitioner's Training Manual
- Body Pad: Red & Infrared Lights, Local: Red& Infrared Lights, Mask: Red & Blue Lights (For Manufacturer Specifications See Either User Manual or Practitioner's Training Manual)
- No Contraindication for Placing at Thyroid or at Pacemaker 00, or over any metal in the body.
- Infrared Light Therapy Contraindications: Pregnancy, do not use over growing fetus, Over Active Cancer Lesion (use 6 inches or more away), Do Not use Infrared Lights Over Eyes (eye mask with red & blue lights is OK). Consult with your doctor before using any light therapy system if taking light sensitive medications, such as Tetracycline.
- Automatic & Manual Override Settings on Controller/For Quick Reference Settings by Body Tissue and Rationale P42 Appendix Practitioner's Manual
- Simple, Easy to Use, 20 Minutes Start to Finish Cycle for Maximum Immersion in Cocoon of Light~No Need for Constant Controller Changes or Cycle Reset
- Manufacturer Medical Science Research (8yrs) and Light Therapy Medical Science Research
- Portable, Travels Well, Rolling Soft Bag Included in Purchase/Will Store Practitioner Additional Devices

- Affordable/ Beyond Your Self care or Care of Clients/Opportunity to Become Part of Community and Create Share the Light Income for Yourself and Others
- [Safe/FDA Cleared](#) (Click on Link to See FDA doc) (FDA under classification (IRT) 890.5740)

Avalon Quantum Light Therapy System

The Eye Mask– Consists of 52 red spectrum LED photo pulsation diodes (at 640 nm) and 52 blue spectrum LED photo pulsation diodes (at 430nm) for a total of 104 LED diodes. This lightweight mask is a great tool for increasing blood flow, decreasing age spots and relieving aches and pains. Skin will naturally appear smoother, tighter, and more radiant.

The Local Pad–is a powerful concentration of 60 Red spectrum photo pulsation diodes (at 640 nm) and 72 Infrared Spectrum Photo pulsation diodes (at 880 nm) for a total of 132 LED's.

The Body Pad–has 120 Spectrum Photo pulsation diodes (at 640 nm) and 144 Infrared Spectrum Photo pulsation diodes (at 880 nm) for a total 264 LED's.

This system also utilizes the **Nogier** frequencies (for the physical body organs, tissues, glands, etc.) PLUS the **Solfeggio** frequencies (sacred emotional and spiritual body frequencies), the quantum **Zero Point** frequencies to return the body to the neutrality and quantum health, and the **Shumann Wave**, which balances us with the frequency of Nature.



What to Expect From your Light Energy Sessions

Observe your body over the next 24–72 hours for both subtle and dramatic differences. Even if you do not feel anything dramatic, however, know that your system is experiencing a shift.

You may feel yourself more alert and ready to take on the world. You could find yourself more relaxed and calm during the session and afterwards. Keep in mind the body heals when it is in a relaxed state. Some people find they sleep much better!

You may also feel a decreased or complete elimination of pain in a specific body area. The device is designed to decrease inflammation and relieve pain. What a wonderful feeling it is to wake up with no pain.

Drinking water before and after each session aids in elimination of toxins. Being well hydrated will help to make each session more beneficial.

If you do not experience any major changes after one session, don't give up. Most people will experience some form of change in their body after the first to third session. If you do not experience any changes, you may need to do some heavy metal detoxification as sometimes mercury, aluminum and other metals can block optimum results.

Summary of what Light Therapy is doing for you

- **Stress Reduction – Emotional balance**
- **Dissolves Cell Memory, Shifts Cell Polarity**
- **Clears Emotional and Energetic Patterns**
- **Alkalizes and normalizes the cells**
- **Naturally stimulates Nitric Oxide production**
- **Increases Circulation, strengthens arteries**
- **Stimulates Release of ATP**
- **Promotes Cell Regeneration**
- **Speeds Up Healing Process**
- **Relieves Pain In Nerves, Reduces Inflammation**
- **Creates Osteo-blasts, which INCREASE bone density with each use**
- **Detoxifies Systems, Eliminates Pathogens**

This equipment, incorporated with a proper whole food diet, can bring your body to optimum health!

Contact Jane Smolnik at 413-345-0088 or visit www.UltimateHealing.com for more info. Email: info@ultimatehealing.com

Automatic Settings for the Avalon System

A- PHYSICAL BODY– Cycles through channels 1–7 above in 3–minute intervals for all frequencies of organs, tissues, glands, bones, teeth, blood vessels, pain relief, etc.

B- STRESS RELIEF – Compilation of Quantum Zero Point, Solfeggio frequencies, Schumann Wave, and more. (“B” is an excellent choice for stress reduction and relaxing the sympathetic nervous system, supporting the healing phase of the body. Great for sleep, meditation, relaxation)

C- ANTI-AGING – Specific sets of frequencies targeting collagen production, elasticity, cellular repair, wound healing, rashes, and skin rejuvenation.

You may choose to set your unit at A, B, or C. Your session will run the entire 20 minutes on that setting. Or select a specific number according to the frequency chart below for channels 1–7 and use it for 5 minutes per number. Or simply turn your controller on and your unit will operate on Auto Mode ‘A’ running through all 7 channels during your session.

Simplified Settings for Areas of Body (Also setting ‘A’)

1. Hormonal functions, ALL endocrine glands, cellular balance.
2. Inflammation, scar tissue, infections
3. Eyes, ears, brain, nerves, skin, pain, body openings.
4. Entire GI tract, liver, lungs, stomach, pancreas, pain inside of mouth, gums, teeth, all tissues of endodermal origin
5. Heart and blood vessels, ligaments, lungs, lymphatics, muscles, joints, bones, reproductive organs, inside of mouth, gums, teeth, sinuses, pain of all tissues of mesodermal origin
6. Circulation, lymphatic stimulation, plateaus, chronic conditions
7. Pain anywhere, Arthritic calcifications, sedates acupuncture and trigger points.

The “Solfeggio” Frequencies in the Avalon System (settings B,C)

UT – 396 Hz – Helps “Liberate Guilt and Fear” – releases you from the feeling of guilt and fear by bringing down the defense mechanisms. Can also be used as a means of grounding, awakening, sobering and returning to reality.

RE – 417 Hz– Helps “Undoing Situations and Facilitates Change” – associated with breaking up crystallized emotional patterns. Cleanses traumatic experiences and clears

destructive influences of past events, limiting beliefs. Increases cellular DNA, and energy.

MI – 528 Hz- Helps “Repair DNA / connecting all the strands” – associated with Transformation and Miracles. Increases amount of life energy, clarity of mind, awareness, awakened or activated creativity, and ecstatic states like deep inner peace, dance and celebration.

FA – 639 Hz- Helps “Connecting / Relationships” – associated with whole brain quadrant interconnectedness. Enhances communication, understanding, tolerance and love. Creates balance, health, tranquility.

SOL – 741 Hz – Expression/Solutions – cleans the cell from different kinds of electromagnetic radiations. Cleansing infections – viral, bacterial, and fungal. This tone leads you to pure, stable and spiritual life. Optimizing Internal strength.

LA – 852 Hz – Awakening Intuition –opening a person up for communication with all-embracing Spirit. Raises awareness and opens the person up to spiritual experiences, divine purpose, and true power.

Ti – 963 Hz – Universal Consciousness – awakens any system to its original, perfect state. It is connected with the Light and all-embracing Spirit, and enables direct experience, the return to Oneness.

The Schumann Wave Frequency – The Schumann Resonance is an Extremely Low Frequency (ELF) wave that exists naturally in the space that exists between the Earth's surface and its Ionosphere. These frequencies are associated with being grounded and present, and can neutralize the negative effects of harmful electromagnetic pollution from all of our technology devices. It is helpful in achieving a relaxed, meditative condition, the alpha condition, where the calm waves of 8–12 Hz dominate and the restless thoughts of the normal beta condition stop.

Sine Waves, Standing Waves, Zero Point – Zero-point field energy is limitless. To the spiritual community, this means "zero-point" is a state of perfect resonance that contains all of the frequencies of all that is and ever was, which equates to the simultaneous presence and absence of all possibilities. The zero-point field is the scientific basis of oneness. It brings us to stillness, calm, neutrality. It is the point of silence before manifestation. A greater connection to our Higher Selves.

For more information, please contact Dr. Jane Smolnik, ND, authorized Avalon Dealer, trainer and Light Energy Instructor for Solas Academy at 413-345-0088 or email drjanesmolnik@msn.com or visit www.UltimateHealing.com.

Frequently Asked Questions

What is infrared or light therapy? Light therapy is currently being used in clinical and home settings around the globe. Light therapy has been in use by the medical profession for more than 20 years, to reduce pain and increase circulation. Its growing acceptance has become more abundant in the medical field.

Can anyone use light therapy? The Quantum Series Light Therapy equipment can be used safely without medical supervision by an individual at home or by a health professional in a clinical setting. The sessions are affordable, completely safe and non-invasive. As is the case with most modalities, if you are pregnant, are light sensitive, or are taking any medications that cause light sensitivity such as Tetracycline, please consult with your doctor regarding the use of any light therapy system.

Has the FDA reviewed The Quantum Series Light Therapy equipment or other infrared systems? The Quantum Series Light Therapy equipment, and many other infrared therapy products, is recognized by the FDA under classification (IRT) 890.5740 or other 510k listings. Both classifications require the manufacturing facilities to be registered with the FDA and adhere to GMP quality standards and are subject to inspection. The Quantum Series Light Therapy equipment, unlike many infrared system products, is completely manufactured in the USA, not overseas.

Does The Quantum Series Light Therapy equipment require a prescription from a physician? No. Infrared devices such as The Quantum Series Light Therapy do not require a prescription. Anyone may purchase a system without prescription. However, if you wish to receive treatments at a clinic with infrared therapy, your insurance or Medicare usually requires a prescription or referral to the facility in order to be reimbursed under your health plan. This is a completely separate issue from purchasing a system for your home or personal use.

What happens when The Quantum Series Light Therapy equipment is used? The Quantum Series Light Therapy equipment's array of infrared and visible light diodes creates a comforting warm feeling under the pads.

The photo energy:

- dilates the blood under the vessels, which often causes an increase in circulation.
- the light and mild warmth also may reduce and alleviate pain.

Additionally, patients and clients may experience:

- decrease in local swelling
- decreased inflammation
- decreased muscle spasms and tightness
- Diabetic with peripheral neuropathy typically experience an increase in sensation to pressure and hot/cold.
- increased range of motion
- increased lymphatic drainage
- increased venous dilation and flow
- decreased tension

How does The Quantum Series Light Therapy increase circulation? The infrared photo energy releases nitric oxide from the hemoglobin and possibly surrounding tissue. Nitric oxide is a signaling molecule that is known to relax smooth muscle cells found in the arteries, veins, capillaries and lymph vessels. When these muscles relax, they dilate the blood vessel, thus allowing increased circulation.

Have increases in circulation associated with infrared devices ever been measured? Yes. Tests have been conducted with a scientific instrument known as a scanning laser Doppler,

which measures circulation at 1 to 2 millimeters (microcirculation). These tests demonstrate increases from 400% to 3200% after just one session.

How does The Quantum Series Light Therapy reduce pain? Nitric oxide has been shown to be essential for wound healing even if chronic or traumatic. Scientific literature shows that nitric oxide promotes collagen synthesis, collagen fibril alignment, and angiogenesis. Nitric oxide is also a neurotransmitter.

What is the difference between an LED and a low level laser? Both contain diodes (a little light with two wires connected to a filament inside) that can be made of the same materials, usually silicon with specific minerals added in specific amounts to produce different colors. In lasers the diode is mounted in a well-shaped area (like a small tin can with one end removed) that is lined with reflective material that sends, generally, only one wavelength of light. The result is a narrow beam of light that is concentrated into a beam, referred to as “coherent” light. However, when using low power levels (soft lasers) the light energy does not remain coherent and scatters when it hits the skin. This is given as the explanation why LEDs and low level laser devices have similar healing effects.

What colors of LEDs work the best? Red is probably more known and researched than any other color. Research in Russia found biologic effects to be most active with wavelengths around 440, 630 to 680 and 880 nanometers, corresponding to blue, red and infrared (beyond what humans can see). Red seems to stimulate the system, blue to sedate. In recent studies blue light from LEDs has been effective in treating jaundice of newborns and in treating acne and skin conditions.

Why are The Quantum Series’ products pulsed to Dr. Nogier’s frequencies? Pulsed equipment is more effective than non-pulsed, and those pulsed to the tissue resonance frequencies of Dr. Nogier’s brilliant science are the most effective when working on the human body. The pulsing light at Nogier frequencies, according to studies, seems to be more important than wavelength (color) in the healing response for most conditions.

What about power? The Quantum Series Light Therapy equipment diode output (mw for infrared and mcd for visible light), viewing angles ($7\frac{1}{4}$ - $60\frac{1}{4}$), voltage (1.2 – 3.0 volts) (200 mw per diodes x 500 diodes = 100,000 mw), frequency (73 – 4698 Hz), wavelength (430 – 880 nm), and duty cycles (25 – 100%) are all very critical factors that are interdependent on each other. There seems to be a fundamental misunderstanding by most individuals about the relationship between these factors. A good system balances all of these factors and thus delivers the optimal amount of energy.

Who has studied LED Light Therapy? There are volumes of scientific studies available on light therapy. The following is just a sample list of institutions that have conducted clinical studies on the effectiveness of LED Light Therapy:

- National Cancer Institute
- Mayo Clinic, Jeffrey Basford, MD
- Stanford University, Kendric C. Smith
- Massachusetts General Hospital, Wellman Labs
- NASA, Dr. Harry T. Whelan
- Marshall Space Flight Center
- University of British Columbia, Vancouver, B.C.

Contact Jane Smolnik at 413-345-0088 or visit www.UltimateHealing.com for more info. Email: info@ultimatehealing.com