LIGHTWAVE

LED Light Therapy ✳ Topical Light Infusion

# Theory and Protocol Usage Booklet





ReAct Series
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# NOTICE: READ BEFORE OPERATING

**The information supplied throughout this document should be used only as a guideline and does not constitute or replace medical advice. LIGHTWAVE™ DELUXE ELITE system is registered, listed and cleared with the FDA. The intended use of the LIGHTWAVE™ Systems is for cosmetic rejuvenation per 510k K082586 and has been determined by the FDA "to be of non-significant risk."**

- **This manual must be kept for quick reference on use, cautions, maintenance and repair.**
- **Read this manual in its entirety before using any LIGHTWAVE™ system.**
- **Improper use of a LIGHTWAVE™ system can void the warranty. Please familiarize yourself with the limitations of the warranty and proper handling and storage of the system.**
- **WARNING: Use carefully. May cause serious burns. Do not use over sensitive skin areas or in the presence of poor circulation. The unattended use of the LIGHTWAVE™ system by children or incapacitated persons may be dangerous.**

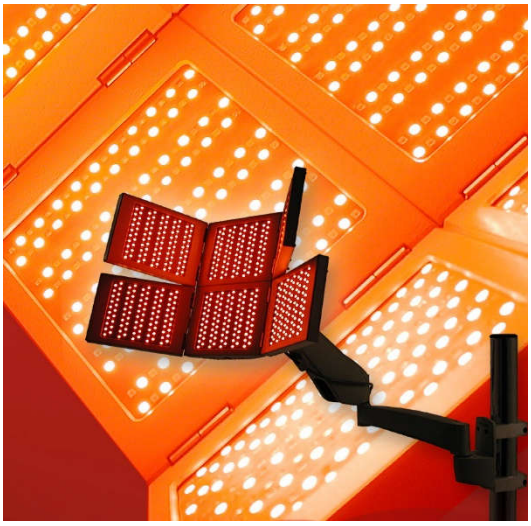
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# Introduction

LIGHTWAVE systems are designed to be as simplistic as possible for the user to operate while still providing outstanding results.



The LIGHTWAVE™ System utilizes high-end Light Emitting Diodes (LEDs) to distribute the specific wavelengths of light it radiates. This technology is commonly referred to as Photobiostimulation, Light Emitting Diode Therapy (LEDT) LLLT, or LEDs. Over the past 40 years, positive therapeutic results have been clinically documented by independent research and publications worldwide. The application of LEDs to living tissue is non-invasive and provides a remarkable treatment alternative to traditional prescription medication and/or surgery.

While lasers and LEDs have been used in medicine for years – for example, in eye surgeries and other delicate operations such as laser surgery – the scope of their full potential is just beginning to become widely known and accepted. Recent studies indicate that intense narrowband red and infrared light, which can penetrate below the skin, promotes the healing process and fuels over 20 different positive changes at a cellular level, including the increased production of collagen and elastin fibers. Current studies also point out the significant effects blue light can have on various topical skin conditions.

# Instructional Overview



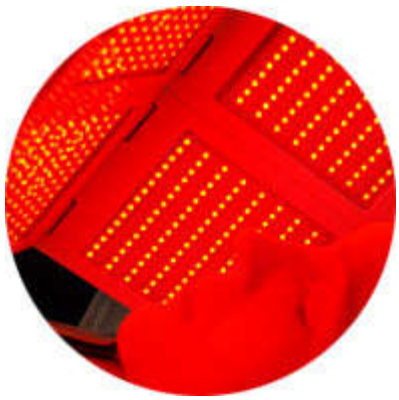
Light is electromagnetic radiation (photons), which means that light = particles of energy. Many terms are used when defining light. The terms most important pertaining to light therapy are wavelength, frequency, and power (watts). The wavelength, in short, is the color of the light measured in nanometers. The colors of light used in the LIGHTWAVE™ systems are red (630nm), infrared (880nm), and blue (417nm).

The frequency of light is how many pulses per second the light is delivered in. The power of light is the strength or intensity of the light measured in watts or joules (i.e., 100 watt light bulb). Light therapy is very dependent upon these three characteristics of light.

As we go through our day, our bodies are bombarded by numerous wavelengths (colors) of light, all in different frequencies and different wattages. This light, which is produced mainly from the sun, affects our body's living tissue in many ways; so essential that, without it, we would die. Decades ago, it was found that red and infrared light had a very positive effect on cells in human and animal bodies, with different frequencies and powers affecting cells differently. The red and infrared are very close in wavelength; the

range from red to infrared being 600 to 850 nm (nm=nanometers=unit of measure for the wavelength of light) respectively. The LIGHTWAVE™ systems use 630nm of red and 880nm of infrared. The blue light is found to be in the 400-480nm range, with LIGHTWAVE™ systems using a wavelength of 417nm. The frequencies of light used in the system are from 0 Hz to 10 KHz (Hz=Hertz=unit of measure for the frequency of light). Zero Hz is commonly referred to as a continuous wave. The powers of light used in the LIGHTWAVE™ unit are from 60% to 100% of the total watts of each LIGHTWAVE™ pad.

# How do wavelength, frequency, and power relate to light therapy?



When light (photons) is administered to tissue it is painless; hence LIGHTWAVE™ treatments are painless. Studies have shown that LED light (photons) enters the tissue, stimulates the basic cell structure and function, and significantly increases cellular activity by increasing the production of adenosine triphosphate (ATP). Thus many processes can be "jump started" and desired results can be experienced at a much more rapid rate.

Both red and infrared light are becoming well known for their undeniable restorative benefits, while blue light has been shown to be incredibly beneficial in reducing the presence of bacteria. When red, infrared and blue light are administered correctly, you can expect to see many positive changes; including an increase in collagen and elastin fiber synthesis, increased vascularity, a boost in phagocytosis, increased lymphatic system activity, a decrease in the presence of bacteria and a reduction in the excitability of nervous tissue. Blue and red light address many surface or near surface imperfections and conditions while infrared light penetrates much deeper. Certain frequencies of light stimulate cells in different ways and the power can be adjusted to give a sensitive or more intense treatment.




Mass analysis of data from documented clinical studies has allowed LIGHTWAVE™ to use pre-programmed settings to help guide the user in achieving the best possible results. All preset programs are designed to deliver enough power to stimulate a positive response from the body but do not deliver enough power to actually damage any of the surrounding tissues. LIGHTWAVE™ therapy is a safe and effective treatment with almost no known side-effects.

# Conditions Being Treated By LED Therapy Worldwide

**General:**
Skin Rejuvenation
Pre and Post Laser Care Acne and Acne Scarring
Striae Scars
Alopecia
Hyper-pigmentation and Sun Spots

**Injuries:**
Rotator Cuff Tears
Carpal Tunnel Syndrome
Lower Back Problems
Temporal-Mandibular Joint Problems Ligament and Tendon Tears Contusions
Tissue Strains and Sprains

**Inflammatory:**
Tendonitis Bursitis
Myositis Synovitis
Plantar Fasciitis
Rheumatoid Arthritis

**Degenerative:**
Osteoarthritis
Degenerative Disc Disease
Fibromyalgia Chronic Leg Ulcers Muscular Skeletal Disease Neuromuscular Disease
Injured Nerves & Bone Fractures
Whiplash Injuries
Frozen Shoulder

# LIGHTWAVE™ Theory and Protocol Overview

It is important to understand a few basic principles of light theory so that the use of your LIGHTWAVE™ system can be maximized.

A) Blue light (wavelength 405nm-450nm) provides a very superficial penetration even with a high-intensity narrowband light source. It is primarily absorbed by the epidermis of the skin. Once it is absorbed, blue light targets P. acnes by stimulating porphyrins which then produce intracellular singlet oxygen and thus inducing bacterial death.

B) Red light (wavelength 625nm-660nm) penetrates human tissue superficially, with approximately 80% of the energy being absorbed in the first 2cm. Red light energy has a significant effect on mitochondrial stimulation, which increases the production of ATP and in turn boosts fibroblast activity. This leads to an increase in cellular turnover, superficial circulation, and an anti-inflammatory emission.

C) Infrared (IR) light (wavelength 800nm - 900nm) energy penetrates tissue at a greater depth than the blue and red light. Approximately 50% penetrates to 8cm and decreases to less than 1% at 20cm (NASA study). Infrared energy is known to heat tissue and its effects are well documented for therapeutic pain management. For cosmetic applications, IR stimulates the NaK+ pump which increases cell membrane permeability; facilitating equilibrium of cellular pH, while increasing nutritional absorption and elimination of waste byproducts.

D) Biological effects, such as an increase in collagen bundles and elastin fibers, are increased when red and infrared energy is used in conjunction with each other. However, the two wavelengths should never be used simultaneously due to possible wavelength interference.

E) Tissues are affected differently by pulsing the wavelengths between 10 Hz -

10,000 Hz. Slow pulses reduce nerve sensitivity by decreasing the production of Brinikin lucitrin necessary in the transmission of pain signals. Mid-range pulses stimulate endorphin production while intense pulses stimulate mitosis and cellular repair. Each program incorporates multiple pulse frequencies including continuous wave which are designed for optimum tissue response for each pre-set indication.

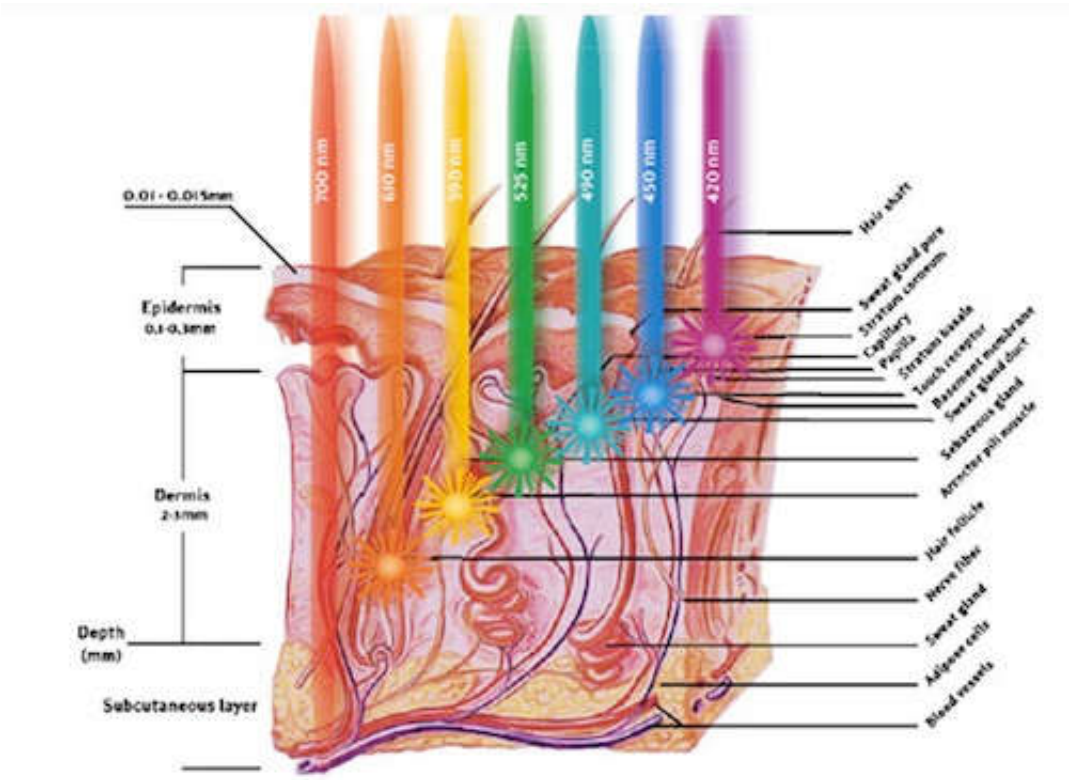
F) Many skin care products contain reflective agents and if they are applied to the skin prior to a light therapy treatment, they can actually decrease the effectiveness of the treatment. It is important to apply the various wavelengths of light to clean, dry skin that has been properly prepped for photo energy. ABI Dermaceuticals™ has been specifically developed to increase the effects of each LIGHTWAVE™ treatment.

H) Pads should never be used directly on open wounds. Hospital wipes used to sanitize the LED pads do not guarantee sterility. Be sure to take adequate precautions for open wounds including sterile dressings. Clear saran wrap like film is not recommended for use with LIGHTWAVE™.

Please see the detailed protocol information for step by step treatment instructions. Below you will find a brief overview of each protocol.

Please note: Not every LIGHTWAVE™ model includes all 11 programs. Our Professional systems and pad sets only include programs 1-8. The CUSTOM programs listed below are only available on our Elite system configurations.

Each individual responds differently to light; some notice effects much more quickly than others. The following principles are generalities; specific results will vary from client to client based on the client's needs, lifestyle and skin type. The following 11 programs have been designed to address the most common requested treatments. All treatments are between 14-30 minutes in duration.




*There are too many variables in the skin to allocate defined numbers of wavelengths for any layer of the skin. Note that reflection, refraction and absorption can occur at all levels of the skin.

# LIGHTWAVE Treatments Overview

1. Anti-Aging – This pulsed 20-minute treatment is designed to re-hydrate the face, and increase collagen and elastin formation resulting in a reduction of fine lines and wrinkles. It aids in decreasing flaccidity, lifting sagging tissues and restoring skin tone and texture resulting in an overall improvement erasing years from the face. Ten treatments are recommended. Maintenance once a month or as needed can prolong the youthful appearance.

2. Pigmentation - This pulsed 20-minute program is intended to improve discoloration caused by sun damage, chemical build-up, chemical reactions from chemical peels, and excessive use of skin damaging products. This process helps to normalize the melanin within the skin. The amount of treatments needed vary depending on the amount of damage to the skin the age of the client.

3. Scars – During this pulsed 20-minute program clients usually notice softening of scar tissue. They also notice flattening and widening of the scar. This is a normal sequence in scar reduction. With several more sessions the flat, wide scar will become thinner and remain flat. Some scars may appear to be resistant to this program (hypertrophic and/or keloid). If this is the case, a customized LIGHTWAVE™ treatment protocol and/or additional treatment options may need to be considered.

4. Preventative Care - This pulsed 20-minute program is designed to increase blood circulation and bring more nutrients to the skin's surface which helps to keep the skin from breaking down. It also helps to normalize dry or oily skin, achieving an overall improvement in skin tone and texture.

5. Flaccid Skin -This pulsed 20-minute program focuses on skin retraction by increasing circulation and bringing nutrition to damaged tissue. This program is particularly effective over the abdomen, neck and upper chest. Treatments should be applied twice per week and may require between ten - fifteen treatments.

6. Discomfort – This pulsed 20-minute setting was developed with a focus on clients who experience persistent problems such as joint and muscle discomfort, as well as inflammation. It is also often used within 72 hours of any traumatic event, including post-surgical interventions to reduce scarring and encourage normal tissue formation. Caution should be taken when treating clients with thin, sensitive skin as this program induces a significant increase in tissue temperature. To alleviate discomfort, place the panel directly over the affected area, approximately 1 inch from the skin. If tolerable, the pad should be placed directly on the treatment area when the panel is unavailable or the panel is not best suited for the treatment area.

7. Red/IR Combination* – This 30-minute program allows the user to provide a protocol specific for a treatment condition that has not been addressed by one of the other pre-set protocols and has been shown to benefit from intense red and infrared light. It utilizes 15 minutes of continuous narrowband red light, followed by 15 minutes of continuous narrowband IR light.

8. Infrared Only* – This 15-minute program consists of infrared light only. The solid IR light is often used as a pre-cursor for surgical patients, as well as pre and post-operative for many ablative cosmetic procedures. It has been shown to stimulate specific cell lines which are needed continuous wave or pulsed selectable to accelerate the healing process and minimize any scarring that may be associated with these procedures.

9. Red Only* – This continuous wave or pulsed selectable 15-minute program consists of red light only. Most of the energy from the red light is absorbed by the mitochondria, increasing the production of

ATP. This protocol is designed to be used to treat redness and edema on the skin's surface as well as superficial skin imperfections. It is often used following an ablative treatment such as IPL or laser resurfacing. This program is further used to activate topical methyl-aminolevulinate (MAL) during PDT. This program allows the user the ability to provide a treatment protocol that has not previously been addressed by one of the other treatment settings.

10. Blue/Red* - This continuous wave or pulsed selectable (red only) 30-minute program is designed to repair damaged skin and significantly reduce the P. acnes, the bacteria responsible for causing inflammatory acne vulgaris. 15 minutes of blue light first enters the sebaceous glands and singlet oxygen is created. Singlet oxygen then in turn kills the bacteria. Next, the client is exposed to 15 minutes of red light. This aids in the healing process of the skin and prevents infection and scarring from occurring.

11. Blue Only* – This continuous wave program is 15 minutes in duration and consists of narrowband blue light only. The program is designed to kill the acne-causing bacteria, P. acnes often associated with inflammatory acne vulgaris. This program is further used to activate topical 5-aminolevulinic acid (ALA).

*This program is only customizable on the Elite system. Blue light is not pulse rate is not customizable and should only be used in CW mode. Please refer to the Operation Manual for instructions on how to start a custom program.

# LIGHTWAVE DETAIL PROTOCOLS



# LW 1 - ANTI-AGING

Designed to help re-hydrate the face and increase collagen and elastin formation reducing fine lines and wrinkles. Reduces flaccidity, lifts sagging tissues and restores skin tone and structure to the face, resulting in an overall noticeable skin improvement. For clients who have significant crow's feet or smoker's mouth, exfoliation is highly recommended prior to starting a light therapy session.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin: Cleanse the face and neck area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. For aged and/or sun damaged skin additional exfoliation is required prior to starting the light therapy treatment. ABI's Micro Exfoliating Scrub treatment, ABI's various chemical peels, and microdermabrasion treatments are all very effective in properly preparing the skin for an LED light therapy treatment.**

*Note: Please refer to specific suggested protocols when using microdermabrasion and chemical peels with your LIGHTWAVE system.*

**2. Precautions: Shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: Place the LED panel or pads directly over the face and neck area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the face and neck area. Keep in mind that the further away the panels are, the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

**4. Post Care: Finish the treatment by applying one or two pumps of ABI's Hydrating Recovery Gel, Intense Antioxidant with Caviar, ABI's Moisturizing Antioxidant with Copper Peptide, and ABI's Firming Peptide Crème with Matrixyl 3000, followed by ABI's Shade Sunscreen with 28+ protection. It is also important to always have the patient increase their water intake by at least 8oz following a treatment.**

NUMBER OF SUGGESTED TREATMENTS: An initial ten treatment series is recommended for this protocol over an 8-12 week period. The client should receive LED light therapy treatments two-three times a week for the first 4-5 weeks with at least 36 hours between treatment sessions. The 10th treatment session should occur on week 8-12 depending on the intensity and amount of exfoliation that occurred throughout the series of treatments. Less exfoliation will require the client to wait up to 12 weeks between the first session and session ten allowing the body's new healthy skin cells to reach the skin's surface. Maintenance treatments can prolong the youthful appearance once every 6-8 weeks or as needed.

# LW 2 - PIGMENTATION

This program is designed to improve discoloration caused by sun damage, chemical build- up, and chemical reactions from chemical peels, and excessive use of skin damaging products. This process normalizes the melanin of the skin. Amount of needed treatments will vary depending on the amount of damage to the skin, the thickness of the skin, the age of the client, and how well the skin is prepped for the light treatment. Severe conditions such as Melasma may be best treated with combination therapy of topical ointments such as hydroquinone and/or IPL and/or laser followed by LIGHTWAVE™ Therapy.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin:** **Cleanse the area to be treated with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. This will allow for proper light penetration in the target area. For a more effective treatment, additional exfoliation is recommended prior to starting the light therapy treatment. ABI's Micro Exfoliating Scrub treatment, ABI's various chemical peels, and microdermabrasion treatments are all very effective in properly preparing the skin for an LED light therapy treatment.**

*Note: Please refer to specific suggested protocols when using ABI's Micro Exfoliating Scrub, microdermabrasion and various chemical peels with your LIGHTWAVE system.*

**2. Precautions:** **Shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions:** Place the LED panel or pads directly over the sun spots. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area. When using the body pads, place directly over the treatment area.

***Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.***

**4. Post Care:** **Finish the treatment by applying ABI's Max HQ lighting cream or using a prescription treatment such as Tri-Luma® and ABI's Shade Sunscreen with 28+ protection. A lightening cream is not required to achieve results but can help to decrease the required number of treatments needed. It is also important to always have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial ten-twelve treatment series is recommended for mild discoloration and fifteen-twenty treatment series for moderate discoloration over an 8-12 week period. Severe discoloration may best be treated with combination therapy of IPL and/or laser followed by ten treatments of LIGHTWAVE Therapy. With all suggested treatment options, the client should receive LED light therapy treatments two-three times a week with at least 36 hours between treatment sessions. The final treatment session should occur on week 12. The client needs to wait up to 12 weeks between the first session and last session of the series to allow the body's new healthy skin cells to reach the skin's surface.

# LW 3 – SCARS

Abnormal scarring, such as hypertrophic and keloid scars, are usually more difficult to treat and may appear resistant to change. When addressing these type of scars, it is recommended you use the Red/IR setting (program # 10) for 2-3 weeks prior to starting this protocol regimen. Program #10 will help to jump start the deep scar reduction process. When treating a scar, please keep in mind that no scar can ever be completely removed. However, this protocol has shown to improve the appearance of both new and old scars, especially scars that are recessed in the skin leaving a pit such as an acne scar.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin: Cleanse the treatment area with ABI's Exfoliating Enzyme Wash followed by ABI's Micro Exfoliating Scrub for old scars, removing all impurities and dead skin cells.**

**2. Precautions: If treating a scar on the face or neck area, shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: Place the LED panel or pads directly over the scar. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area. If a new scar is sensitive to heat, it is recommended that the technician open the side wing panels to allow for increased air flow, alleviating any discomfort. When using the body pads, place directly over the treatment area. If the scar is localized to a small area it is still advisable to use a full set of three pads overlapping the treatment area.**

**4. Post Care: Finish the treatment by applying one or two pumps of ABI's Hyaluronic Peptide Serum and ABI's Hydrating Recovery Gel followed by ABI's Moisturizing Antioxidant with Copper Peptides and ABI's Shade Sunscreen with 28+ protection. It also is important to always have the patient increase their water intake by at least 8oz following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial ten-fifteen treatment series is recommended for new scars and twenty-twenty five treatment series for old scars over an 8-12 week period. The client should receive three LED light therapy treatments the first week and two-three times a week for the following 3-4 weeks with at least 36 hours between treatment sessions. The final treatment session should occur on week 12. The client needs to wait up to 12 weeks between the first session and last session of the series to allow the body's new healthy skin cells to reach the skin's surface. When treating a scar, it is important to understand the normal sequence in scar reduction. After the initial softening of the scar, the scar will begin to flatten and may appear wider. With several more sessions the flat, wide scar will become thinner and remain flat.

# LW 4 – PREVENTATIVE CARE

This 20 minute program is commonly applied to young, healthy skin as a way to help slow down the signs of aging from appearing on the skin's exterior. It increases blood circulation and brings more hydration and nutrients to the skin's surface to help keep the skin from breaking down. It also helps to normalize and balance out dry or oily skin, achieving an overall improvement in skin health.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin:** **Cleanse the area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. This will allow for proper light penetration in the target area. For a more effective treatment, ABI's Micro Exfoliating Scrub treatment, ABI's various chemical peels, and microdermabrasion treatments all work well in properly preparing the skin for an LED light therapy treatment.**

*Note: Please refer to specific suggested protocols when using microdermabrasion and various chemical peels with your LIGHTWAVE system.*

**2. Precautions:** **Shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions:** **Place the LED panel or pads directly over the face and neck area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the face and neck area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

**4. Post Care:** **Finish the treatment by applying one to two pumps of ABI's Hydrating Recovery Gel, ABI's Intense Antioxidant with Caviar, ABI's Moisturizing Antioxidant with Copper Peptides, ABI's Firming Peptide Crème with Matrixyl 3000, followed by ABI's Shade Sunscreen with 28+ protection. It is also important to always have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial ten treatment series is recommended for this protocol over an 8-12 week period. The client should receive LED light therapy treatments two- three times a week for the first 4-5 weeks with at least 36 hours between treatment sessions. The 10th treatment session should occur on week 8-12 depending on the intensity and amount of exfoliation that occurred throughout the series of treatments. Less exfoliation will require the client to wait up to 12 weeks between the first session and session ten allowing the body's new healthy skin cells to reach the skin's surface.

# LW 5 – FLACCID SKIN

This program focuses on skin tightening by increasing fibroblast activity, circulation and bringing nutrition to damaged tissue resulting in the formation of collagen and elastin fibers. This treatment is particularly effective over the abdomen, neck and upper chest. If an ample amount of excess skin is present, such as with significant weight loss, it may be necessary to surgically remove the excess skin prior to starting this treatment program.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin: Cleanse the area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. This will allow for proper light penetration in the target area. For a more effective treatment, additional exfoliation is recommended prior to starting the light therapy treatment. ABI's Micro Exfoliating Scrub treatment, ABI's various chemical peels, and microdermabrasion treatments are all very effective in properly preparing the skin for an LED light therapy treatment.**

**Note: Please refer to specific suggested protocols when using ABI's Micro Exfoliating Scrub, microdermabrasion and various chemical peels with your LIGHTWAVE system.**
*Note: Please refer to specific suggested protocols when using microdermabrasion and various chemical peels with your LIGHTWAVE system.*

**2. Precautions: If treating skin near the face or neck area, shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**
*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: Place the LED panel or pads directly over the treatment area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

**4. Post Care: Finish the treatment by applying one or two pumps of ABI's Hydrating Recovery Gel and ABI's Firming Peptide Crème with Matrixyl 3000. It is important to always have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial ten-fifteen treatment series is recommended over an 8-12 week period. The client should receive LED light therapy treatments two-three times a week with at least 36 hours between treatment sessions. The final treatment session in the series should occur on week 12. Waiting up to 12 weeks between the first session and final session allows the body's new healthy skin cells to reach the skin's surface and for you to properly see the effects of the initial treatment series. The effects of the treatment will continue for months following the initial treatment series as the formation of new collagen can take up six months.

# LW 6 – DISCOMFORT/PAIN

Program number eight is a pulsed 20 minute program which addresses the needs of clients with symptoms of persistent and chronic discomfort and inflammation. Soft-tissue injuries found in the shoulders, knees, back and small joint areas as well as other prolonged and continuing ailments, typically see a decrease in discomfort approximately one - two hours after exposure. Caution should be taken when treating clients with sensitive, thin skin as this program induces a significant increase in tissue temperature.

**1. Prepare the Skin: Caution should be taken not to place the pads or panel directly on open wounds or where superficial circulation has been compromised. The treatment area needs to be cleaned and free of any reflective agents that may affect the absorption of light prior to starting the treatment.**

**2. Precautions: When treating discomfort near the face and eye area, shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: For a specific area of discomfort, place the LED panels or pads directly over the affected areas. For relaxation and tension reduction, place the panel pads at the base of the skull and run them parallel with the spine. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate**

**the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area. When using the pads, place directly over the treatment area. Pads that come in contact with the skin should be properly disinfected between patients to avoid any cross contamination.**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

**4. Post Care: Finish the treatment by applying one or two pumps of ABI's Hydrating Recovery Gel to help reduce ROS. In addition, it is always important to have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial minimum treatment series of six is recommended for this protocol over a one to two week period. The client should receive LED light therapy treatments two-three times a week with at least 24 hours between treatment sessions until the chronic discomfort has subsided. The actual number of treatment sessions the client needs will depend greatly upon the degree of discomfort and the extent of inflammation the client actually experiences.

## LW 7 – RED/IR *Available as a customizable setting on the Elite system only.

This program is designed to allow the user to provide a protocol specific for a treatment condition that has not been addressed by one of the other pre-set protocols and has been shown to benefit from intense red and infrared light. It utilizes 15 minutes of continuous narrowband red light followed by 15 minutes of continuous narrowband IR light. The power, frequency and duration of this setting can only be customized on the Elite systems. Please refer to the Operating Manual for specific directions.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin: Cleanse the area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. Exfoliating the skin with ABI's Micro Exfoliating Scrub is highly recommended prior to starting a treatment. This will allow for proper light penetration in the target area. The treatment area needs to be clean and free of any reflective agents that may affect the absorption of light.**

**2. Precautions: goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area. Due to the customization ability and power output, pads may not be used with this setting**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

**4. Post Care: Post care will be dependent upon and determined by the condition being addressed. However, as with all light therapy sessions, it is always important to apply ABI's hydrating Recovery Gel to neutralize ROS and to have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** The number of suggested treatments will need to be determined by the condition being treated. In general, an initial minimum treatment series of six is recommended over a one to two week period in order to stimulate a noticeable response from the body at a cellular level. The client should receive LED light therapy treatments two-three times a week with at least 24-36 hours between treatment sessions. The actual number of treatment sessions the client needs will depend greatly upon the condition being treated and the extent of the condition.

## LW 8 – IR Only *Available as a customizable setting on the Elite system only.

This program consists of infrared (IR) light only and is designed to allow the user to provide a protocol specific for a treatment condition that has not been addressed by one of the other pre-set protocols. The 880 nm wavelength penetrates skin tissue at a much deeper level than the red light. The IR light increases cell permeability which causes equilibrium of cellular PH, while increasing the nutritional intake of the cells and eliminating the waste byproducts. This protocol has many functions. However, for cosmetic applications, IR is primarily used to help in the recovery process. It can be used to jump start cellular repair progression prior to undergoing an invasive treatment such as a tummy tuck or laser surgery. IR light can also be used in the post care procedure to reduce bruising, swelling, and sensitive skin often associated with other facial treatments or surgeries. The power, frequency and duration of this setting can only be customized on the Elite systems. Please refer to the Operating Manual for specific directions.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

1. Prepare the Skin: **If possible, cleanse the treatment area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. This will allow for proper light penetration in the target area. The treatment area needs to be clean and free of any dead skin and reflective agents that may affect the absorption of light.**

2. Precautions: **Shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

3. Treatment Instructions: **Place the LED panel directly over the treatment area. To maximize the results of the treatment, make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

4. Post Care: **If you are treating redness and post-surgical conditions, it highly recommends that you follow- up the treatment session by applying an ample amount of ABI's Hyaluronic Peptide Serum and ABI's hydrating Recovery Gel which contain no perfumes, dyes or irritants. It is also important to always have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** To jumpstart the cellular repair process prior to an invasive procedure, it is recommended that the client receive two sessions of light therapy; one session two days prior to the procedure and the other session immediately preceding the procedure. When using light therapy for post care, treatments should be administered twice weekly with at least 24 hours between treatment sessions until the skin no longer shows signs of bruising, swelling, redness and discomfort. The actual number of treatment sessions the client needs will depend greatly upon the degree of discomfort and the extent of patient's post care needs.

## LW 9 – RED ONLY *Available as a customizable setting on the Elite system only.

This program consists of red light only and is designed to allow the user to provide a protocol specific for a treatment condition that has not been addressed by one of the other pre-set protocols. The 630 nm wavelength stimulates the mitochondria and causes superficial circulation. Approximately 80% of the energy is absorbed in the first 2cm and decreases to less than 1% at 8cm. This protocol is designed to be used to treat edema, redness and issues on the surface of the skin. It is often used as part of the post care regimen following other ablative cosmetic procedures such as aggressive chemical peels, microdermabrasion, IPL and laser resurfacing. This program has also been used to activate topical methyl-aminolevulinate (MAL) during PDT*. The intensity, frequency and duration of this setting can only be customized on the Elite system. Please refer to the Operating Manual for specific directions.

**1. Prepare the Skin: If possible, cleanse the treatment area with ABI's Exfoliating Enzyme Wash, removing all impurities and dead skin cells. This will allow for proper light penetration in the target area. The treatment area needs to be clean and free of any reflective agents that may affect the absorption of light.**

**2. Precautions: Shield the patient's eyes by fitting the protective goggles in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions: Place the LED panel directly over the treatment area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panel placed less than 1 inch from the treatment area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

**4. Post Care: If you are treating redness and surface skin conditions, it highly recommends that you follow- up any treatment by applying one or two pumps of ABI's Hyaluronic Peptide Serum and ABI's hydrating Recovery Gel followed by and ABI's Sensible Sunscreen with 30+ protection to the target area. It is also important to always have the patient utilize one of ABI's "at home" care kits for full recovery as well as increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** The number of suggested treatments will need to be determined by the condition being treated. In general, an initial minimum treatment series of six is recommended over a one to two week period in order to stimulate a noticeable response from the body at a cellular level. The client should receive LED light therapy treatments two-three times a week with at least 24-36 hours between treatment sessions. The actual number of treatment sessions the client needs will depend greatly upon the condition being treated and the extent of the condition.

# LW 10 – BLUE/RED – Mild to Moderate Acne

Acne Vulgaris is the most common of all skin disorders affecting nearly 85% of adolescents and young adults (usually between the ages of 15 to 24). Acne is a disease of pilosebaceous units in the skin. It is thought to be caused by the interplay of four factors: Sebaceous gland hyperplasia, excessive sebum production, hyperkeratinization of the hair follicle, and inflammation.



The main porphyrin produced by Propionibacterium acnes (P. acnes) is Coproporphyrin III. Coproporphyrin III is a light sensitive substance with an absorption spectrum in the near UV and blue light spectrum. LIGHTWAVE's systems are equipped to illuminate these substances at the appropriate absorption spectrum to induce photo excitation of bacterial porphyrins, singlet oxygen production, and ensuing bacterial destruction.

The optimal wavelength to achieve cell termination peaks at 415nm. LIGHTWAVE's systems deliver a wavelength of intense blue at 420nm therefore achieving this optimum level. We further combine red at 630nm to diminish the production of pro-inflammatory cytokines. The effects of combining intense light with a narrowband blue-light (415- to 425-nm) anti-inflammatory emission and a near-infrared (850- to 890-nm) emission inducing self-defense mechanisms has been clinically proven effective for controlling bacteria and the release of sebum.

When choosing the most advantageous protocol for an acne patient, one must first exam the severity of their condition. LIGHTWAVE has uniquely designed protocols addressing acne in its most mild form including blackheads, whiteheads, pustules appearing at or near the surface of the skin to severe acne which includes acne conglobate. In some rare cases, cystic acne has increased rather than improved. Cystic acne patients should discontinue the light therapy sessions if they react unfavorably to the treatment as scarring can occur if cystic acne continues for a prolonged period of time. On average, 80% of patients see a 75% reduction in the number of inflammatory acne lesions with results lasting from 3-6 months.

# LW 10 – BLUE/RED – Mild to Moderate Acne (Cont'd)

This program is designed to heal damaged skin and significantly reduce the P. acnes, the bacteria responsible for causing acne vulgaris. It does this by utilizing a combination of blue and red LED light. The blue light first enters the sebaceous glands and singlet oxygen is created. Singlet oxygen then in turn kills the bacteria. Next, the client is exposed to 15 minutes of red light. This aids in the healing process of the skin and prevents infection and scarring from occurring. This program has no known side-effects when treating inflammatory acne. In some rare cases, cystic acne has increased rather than improved. Cystic acne patients should discontinue the light therapy treatment if they react unfavorably to the treatment. The power, frequency and duration of this setting can only be customized on the Elite system. Please refer to the Operating Manual for specific directions.

Note: Take all necessary before pictures of target area prior to starting session number one. If the photos are taken at the conclusion of the treatment, the skin can temporarily appear flushed and red in color.

**1. Prepare the Skin:** **Cleanse the entire target area with ABI's Corrective Wash, removing all impurities and dead skin cells. For aged and/or sun damaged skin, additional exfoliation is required prior to starting the light therapy treatment. ABI's Acne Scrub treatment, ABI's various chemical peels, and microdermabrasion treatments are all very effective in properly preparing the skin for an LED light therapy treatment.**

*Note: Please refer to specific suggested protocols when using microdermabrasion and chemical peels with your LIGHTWAVE system.*

**2. Precautions:** **Shield the patient's eyes by fitting the protective goggles or LED shields in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure. For patients with sensitivity to light, you may wish to utilize both the eye shields and goggles simultaneously.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions:** **Place the LED panel directly over the face and neck area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed less than 1 inch from the face and neck area. Keep in mind that the further away the panels are the less effective the treatment is; therefore the panels should be no more than 1¼ of an inch from the treatment area.**

*Caution: Never have the patient lay directly on the pads restricting airflow as this can heat up the pads to an intolerable temperature.*

**4. Post Care:** **Finish the treatment by wetting a cleansing cloth with ABI's Corrective Mist and swabbing the target area. Then apply one or two pumps of ABI's Corrective Treatment Gel, followed by ABI's Sensible Sunscreen with 30+ protection. It is important to always have the patient increase their water intake by at least 8oz. following a treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** An initial nine treatment series is recommended for this protocol over an 8 week period. The client should receive treatments two times a week for the first 4 weeks with at least 36 hours between treatment sessions. The 9th treatment session should occur on week 8. Before, during, and after photos should be taken at a minimum on week one, week four (which is when the majority of clients see the largest and most significant improvement in their skin) and week eight, documenting the client's progress. On average, 80% of patients see a 75% reduction in the number of inflammatory acne lesions with results lasting from 3-6 months.

# LW 11 BLUE ONLY – ACNE PDT

This program is designed to target severe acne problems or mild to moderate acne that has not previously shown a notable response to light therapy. It does this by causing skin cells to become exceptionally sensitive to light. Skin cells that are treated with topical ALA and then exposed to LIGHTWAVE's blue light will die and then slough off. A blue light 5-aminolevulinic acid treatment has also been noted as effectively eliminating follicular bacteria as well as selectively shrinking and destroying over-productive sebaceous glands.

This protocol has a few known side-effects the client should be made aware of prior to performing the treatment. Possible side-effects include: severe stinging or burning, prickling, itching, erythema, scaling or crusting, edema, and possible hypo- or hyper-pigmentation. Clients should abstain from this treatment if they have Porphyria, or skin sensitivity to blue light. They should also talk to their primary care physician prior to undergoing the treatment if they have recently taken light sensitive medications, are pregnant or are currently nursing. Only a qualified health care professional should apply the aminolevulinic acid and perform this treatment. The power, frequency and duration of this setting can only be customized on the Elite system. Please refer to the Operating Manual for specific directions

Note: ALA/PDT are medical procedure and should only be done by licensed and trained personnel. LIGHTWAVE is not and does not provide or manufacture any drugs. The LIGHTWAVE device is simply the activation component and not responsible for any misuse or abuse. It's the provider responsibility to verify PDT requirements prior to using this system. Instructions below are a guide and deemed absolute or to be considered medical advice.

**1. Prepare the Skin: Cleanse the entire target area with ABI's Corrective Wash, removing all impurities and dead skin cells. For maximum results, additional exfoliation is recommended prior to starting the treatment. ABI's Micro Exfoliating Scrub treatment, ABI's various chemical peels, an Acetone wash or microdermabrasion treatments are all very effective in preparing the skin for a combination blue light and 5-ALA treatment.**

**Note: Please refer to specific suggested protocols when using microdermabrasion and chemical peels with your LIGHTWAVE system.**

**2. Precautions: Shield the patient's eyes by fitting the protective goggles or LED shields in place. The use of LIGHTWAVE issued goggles is required to minimize brightness and to avoid any incidental eye exposure. For patients with sensitivity to light, you may wish to utilize both the eye shields and goggles simultaneously.**

*NOTE The use of goggles is required to minimize brightness and to avoid any incidental eye exposure.*

**3. Treatment Instructions:**

**Applying the Topical 5-ALA and Incubation Period:**

**The following information is provided only as a guideline; please follow specific directions from the provider of your topical 5-ALA as concentration levels (solutions vary from 5-20%) and patient profiles (i.e. skin type, pain tolerance, degree of problem area) can affect the incubation period and possible side effects.**

**Apply the photo-sensitizer and incubate for two-hours (20% concentration level). The incubation period will generally decrease in relation to the reduction in ALA percentage. Please keep in mind, a longer incubation period generally leads to more patient discomfort during the activation period. During this time, it is extremely important to make sure the patient stays indoors and does not come in direct contact with sunlight or bright indoor light.**

**Blue Light Activation Instructions:**

**After the necessary incubation period, rinse the treatment area with water, removing any leftover topical 5- ALA. The client is now ready to have the ALA activated with the LIGHTWAVE™ blue light. It is imperative the client is closely monitored during the light treatment as some treatments can be rather painful for the client.**

Even though the blue light treatment is of low intensity and does not actually heat the skin, the patient may complain of severe burning, stinging or itching. The factors that generally affect a client's reaction include incubation time, ALA concentration level, and personal level of pain tolerance. If during the course of the activation period, the treatment becomes unbearable for the patient, the patient can be removed from the blue light. These side-effects and feelings of discomfort generally subside significantly after the light treatment and are completely gone after 24 hours. In many cases, a more significant reaction to the blue light will indicate greater results from the treatment.

Please make sure the patient has been made fully aware of the possible side effects noted above. Shield the patient's eyes by fitting the protective goggles or LED shields in place. The use of LIGHTWAVE™ issued goggles is required to minimize brightness and to avoid any incidental eye exposure. For patients with sensitivity to light, you may wish to utilize both the eye shields and goggles simultaneously.

Place the LED panels directly over the affected area. To maximize the results of the treatment make sure all six panels are as close to the target area as comfortably possible; most patients can easily tolerate the panels placed about 1 inch from the face and neck area. Keep in mind that the further away the panels are the less effective the treatment is as dosage decreases; therefore the panel should be no more than 1¼ inches from the treatment area. Start each activation treatment by exposing the client to 15 minutes of blue light (program #11). In most cases one 15 minute session is sufficient for activating the ALA solution. However, in some cases it may take longer to fully activate the ALA. If the patient does not noticeably seem to be reacting after the initial 15 minute session, an additional 15 minute cycle can be initiated.

4. Post Care: **Short-Term Post Care**

**Following the treatment, most clients experience some degree of discomfort which can include redness, edema, and flaking or peeling of the skin. These symptoms may worsen within 24 hours following the activation period. These changes are temporary and should improve significantly by the**

**end of the first week with complete clearing by the end of the fourth week following the treatment. This discomfort may be controlled by using over the counter products such as aloe vera gel, Aquaphor, antibiotic sprays or ice packs.**

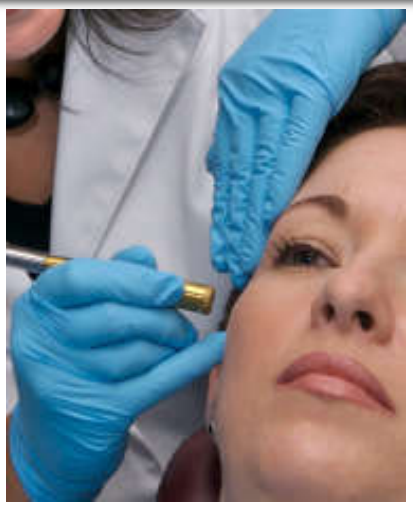
**Following the treatment, it is extremely important for the client to avoid exposure to sunlight as well as excessively bright lights for a minimum of 48 hours. It is highly recommended that a patient make arrangements to have someone escort them home after the treatment. It is further recommended that when exiting the treatment facility, the target area be completely protected using a wide-brimmed hat or sunlight- protective clothing. Sunscreen is not usually enough to keep the skin protected from further light activation. Any unprotected treatment area can become reactivated when exposed to sunlight, causing the patient to experience additional burning or stinging.**

**Long-Term Post Care**

**Most patients do not require any long-term care following this treatment. However, the patients do need to understand that in some cases scabbing and peeling of the skin can occur. It is import for the clients to allow the skin to heal naturally and not to exfoliate or pick at the skin during this time as doing so can lead to infection and scarring. The client should not experience any of the known side-effects mentioned above for more than 4 weeks following the treatment.**

**NUMBER OF SUGGESTED TREATMENTS:** In many cases, a single treatment is all the client will require to achieve the desired results. However, if a second treatment session is needed, a minimum of four weeks should be observed between the first and second treatment session. The results can often be maintained using light therapy and ABI's skin care and Sensible sun block.

# LIGHTWAVE USED WITH MICRODERMABRASION

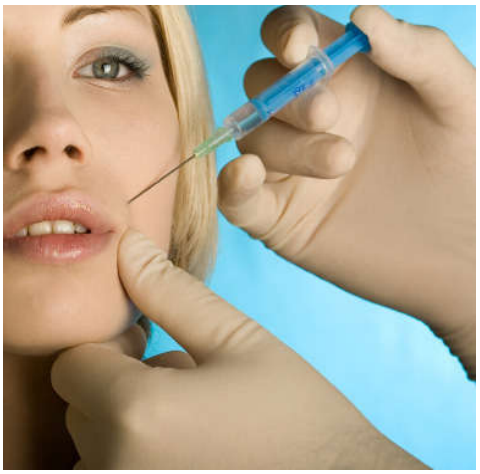


Microderm treatments are generally used to exfoliate the uppermost layer of the skin known as the stratum corneum. This exfoliation process can be accomplished in few different ways and with different intensities. Most treatments consist of one to three passes over the skin with a roughened surface wand causing a mild injury which leads to cellular turn over. By exfoliating the top layer of the skin, it removes the barrier that normally prevents lotions and crèmes from making their way to the lower levels of the skin. A Microderm treatment helps to remove minor visible imperfections on the surface of the skin while promoting the production of new healthy skin cells. Due to the nature of this process, the skin usually experiences mild edema (swelling) and erythema (redness) as well as a temporary loss of moisture.

This protocol regimen has been developed using LIGHTWAVE™ therapy and ABI products to help significantly reduce the edema, erythema and dehydration commonly associated with microdermabrasion treatments. Using LIGHTWAVE™ aids in the formation of healthy new skin cells that will ensure the skin looks and feels smoother.

| **9 LIGHTWAVE SESSIONS USING 3 MICRODERM TREATMENTS OVER 8 WEEKS**<br>**(2 treatments per week with a minimum of 36 hours between treatment sessions)** | | **Session 1 (week 1)** | **Session 2 (week 1)** | **Session 3 & 4 (week 2)** | **Session 5 (week 3)** | **Session 6 (week 3)** | **Session 7 (week 4)** | **Session 8 (week 4)** | **Session 9 (week 8)** |
|---|---|---|---|---|---|---|---|---|---|
| **Step 1** | **Take Bench Mark Photos.** | ✓ | | | | ✓ | | | ✓ |
| **Step 2** | **Cleanse Skin w/ ABI's Exfoliating Wash.** | ✓ | | ✓ | | ✓ | ✓ | | ✓ |
| **Step 3** | **Cleanse Skin with ABI's Corrective Wash.** | | ✓ | | ✓ | | | ✓ | |
| **Step 4** | **Complete Microderm Procedure.** | | ✓ | | ✓ | | | ✓ | |
| **Step 5** | **Apply ABI's Hyaluronic Peptide Serum, allowing it to absorb fully into the skin.** ***For best results, infuse the serum into the skin with an ultrasound wand.*** **Then cleanse skin by repeating step 3.** | | ✓ | | ✓ | | | ✓ | |
| **Step 6** | **Begin LED Program 12-Red Only.** | | ✓ | | ✓ | | | ✓ | |
| **Step 7** | **Begin LED Program 11-IR Only.** | ✓ | | | | | | | |
| **Step 8** | **Begin LED Program 1-Anti Aging.** | | | ✓ | | ✓ | ✓ | | ✓ |
| **Step 9** | **Apply ABI's Foundation Line regimen.** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# LIGHTWAVE USED POST BOTOX & FILLERS



Botox® and fillers are generally used to treat facial creases and wrinkles. The most frequent side effect associated with Botox® and fillerBs such as Restylane™ are usually noted as bruising, swelling, and mild tenderness at the injection site. These side effects can be considerably reduced if patients undergo LED Light therapy treatments before and after their Botox® or filler procedure.

Over time, light therapy can prolong the benefits of Botox®, reduce the number of injections needed, and create fuller, healthier looking skin by stimulating an increase in the production of collagen and elastin.

| **7 LIGHTWAVE SESSIONS USING BOTOX® OR FILLERS OVER 8 WEEKS**<br>**(3 treatments per week with a minimum of 36 hours between treatment sessions)** | | **Session 1 (week 1)** | **Session 2 (week 1)** | **Session 3 (week 1)** | **Session 4 (week 2)** | **Session 5 (week 3)** | **Session 6 (week 3)** | **Session 7 (week 8)** |
|---|---|---|---|---|---|---|---|---|
| **Step 1** | **Take Several Bench Mark Photos.** ***If the photos are taken at the conclusion of the treatment the skin may appear flushed and red in color.*** | ✓ | | | | ✓ | | |
| **Step 2** | **Cleanse Skin w/ ABI's Exfoliating Wash.** | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Step 3** | **Cleanse Skin with ABI's Corrective Wash.** | | ✓ | | | | | |
| **Step 4** | **Follow Your Routine Botox® or Dermal Filler Procedures at this time.** | | ✓ | | | | | |
| **Step 5** | **Begin LED Program 12-Red Only.** | | ✓ | ✓ | | | | |
| **Step 6** | **Begin LED Program 11-IR Only.** | ✓ | | | | | | |
| **Step 7** | **Begin LED Program 1-Anti Aging.** | | | | ✓ | ✓ | ✓ | ✓ |
| **Step 8** | **Apply ABI's Foundation Line regimen.** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# LIGHTWAVE USED WITH LIGHT CHEMICAL PEELS

Chemical peels use a chemical solution to improve and even out the texture of the skin by exfoliating the outer layers of the dermis. A peel can be helpful for those individuals with facial blemishes, wrinkles and uneven skin pigmentation. Patients commonly have multiple peels, depending on the problem being treated and the intensity of the peel being applied. Most peels are used for a gradual improvement where the client will have multiple peels over a period of time. Regardless of the intensity of the peels being used, LIGHTWAVE™ works well before a peel to boost cellular energy and after a peel to calm inflamed tissue, stimulate a reparative cellular response to speed up the skin's natural renewal process and reduce any redness or downtime, improving the overall outcome of the facial treatment.

Alphahydroxy acids (AHAs) such as lactic, glycolic or fruit acids are considered light or superficial peels. They are usually in concentrations of 20%-70%. The objective of a glycolic acid peel is to speed up the natural skin renewal process, not to wound the skin.

| **10 LIGHTWAVE SESSIONS USING 3 LIGHT PEELS OVER 8 WEEKS**<br>**(2 treatments per week with a minimum of 48 hours between treatment sessions)** | | **Session 1 (week 1)** | **Session 2 (week 1)** | **Session 3 & 4 (week 2)** | **Session 5 (week 3)** | **Session 6 (week 4)** | **Session 7 (week 4)** | **Session 8-9 (week 5)** | **Session 10 (week 8)** |
|---|---|---|---|---|---|---|---|---|---|
| **Step 1** | **Take Several Bench Mark Photos first.**<br>***If the photos are taken at the conclusion of the treatment the skin may appear flushed and red in color.*** | ✓ | | | ✓ | | | | ✓ |
| **Step 2** | **Cleanse Skin with ABI's Exfoliating Wash.** | ✓ | | ✓ | | ✓ | | ✓ | ✓ |
| **Step 3** | **Cleanse Skin with ABI's Corrective Wash.** | | ✓ | | ✓ | | ✓ | | |
| **Step 4** | **Follow ABI's Routine Light Peel Procedure at this time.** | | ✓ | | ✓ | | ✓ | | |
| **Step 5** | **Apply ABI's Hyaluronic Peptide Serum.**<br>***For best results, infuse the gel into the skin with an ultrasound wand.***<br>**Repeat step 3 to remove any excess gel.** | | ✓ | | ✓ | | ✓ | | |
| **Step 6** | **Begin LED Program 12-Red Only.** | | ✓ | | ✓ | | ✓ | | |
| **Step 7** | **Begin LED Program 11-IR Only.** | ✓ | | | | | | | |
| **Step8** | **Begin LED Program 1-Anti Aging.** | | | ✓ | | ✓ | | ✓ | ✓ |
| **Step 9** | **Apply ABI's Foundation Line regimen.** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# LIGHTWAVE USED WITH MEDIUM CHEMICAL PEEL

Trichloroacetic acid (TCA) is often used as an intermediate peeling agent in concentrations ranging from 20-40%. A medium strength chemical peel allows the acid to penetrate through the epidermis, down into the upper most portion of the dermis known as the papillary dermis. The usual candidate for a medium peel is someone with fair skin. TCA causes the skin to peel usually within 2 to 4 days.



| **8 LIGHTWAVE SESSIONS USING 2 MEDIUM PEELS OVER 8 WEEKS (2 treatments per week with a minimum of 48 hours between treatment sessions)** | | **Session 1 (week 1)** | **Session 2 (week 1)** | **Session 3 (week 2)** | **Session 4 (week 2)** | **Session 5 (week 3)** | **Session 6 (week 3)** | **Session 7 (week 4)** | **Session 8 (week 8)** |
|---|---|---|---|---|---|---|---|---|---|
| **Step 1** | **Take Several Bench Mark Photos first.** ***If the photos are taken at the conclusion of the treatment the skin may appear flushed and red in color.*** | ✓ | | | ✓ | | | ✓ | ✓ |
| **Step 2** | **Cleanse Skin with ABI's Exfoliating Wash.** | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ |
| **Step 3** | **Cleanse Skin with ABI's Corrective Wash.** | | ✓ | | | ✓ | | | |
| **Step 4** | **Follow ABI's Routine TCA Peel Procedure at this time.** | | | ✓ | | | ✓ | | |
| **Step 5** | **Apply ABI's Hyaluronic Peptide Serum. Repeat step 3 to remove any excess gel.** | | | | ✓ | | | ✓ | |
| **Step 6** | **Begin LED Program 12-Red Only.** | | ✓ | | | ✓ | | | |
| **Step 7** | **Begin LED Program 11-IR Only.** | ✓ | | | | | | | |
| **Step 8** | **Begin LED Program 1-Anti Aging.** | | | ✓ | ✓ | | ✓ | ✓ | ✓ |
| **Step 9** | **Apply ABI's Foundation Line regimen.** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# LIGHTWAVE USED WITH DEEP CHEMICAL PEELS

Deep peels go through the epidermis, papillary dermis and into the deeper portion of the dermis known as the reticular dermis. Phenol is generally used for deepest peels as it is the strongest of the chemical solutions and produces deep skin peeling. In many cases local anesthesia is used to eliminate any pain and discomfort associated with this type of procedure. The procedure is rarely used due to the increase in lasers and generally done by an experienced dermatologist or physician.

At the conclusion of the LED treatment sessions, use customer response and before and after pictures to evaluate the skin and determine if additional LED light therapy sessions or additional peels are needed to achieve desired results.

| **7 LIGHTWAVE SESSIONS USING 1 DEEP PEEL OVER 6 WEEKS (2 treatments per week with a minimum of 48 hours between treatment sessions)** | | **Session 1 (week 1)** | **Session 2 (week 1)** | **Session 3 (week 2)** | **Session 4 (week 2)** | **Session 5 (week 3)** | **Session 6 (week 3)** | **Session 7 (week 6)** |
|---|---|---|---|---|---|---|---|---|
| **Step 1** | **Take Several Bench Mark Photos first.** ***If the photos are taken at the conclusion of the treatment the skin may appear flushed and red in color.*** | ✓ | | | ✓ | | ✓ | ✓ |
| **Step 2** | **Cleanse Skin with ABI's Exfoliating Wash.** | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| **Step 3** | **Cleanse Skin with ABI's Corrective Wash.** | | ✓ | | | | | |
| **Step 4** | **Follow Your Routine Deep Peel Procedure at this time**. | | ✓ | | | | | |
| **Step 5** | **Apply ABI's Hyaluronic Peptide Serum.** ***For best results, infuse the gel into the skin with an ultrasound wand.*** **Repeat step 3 to remove any excess gel.** | | | ✓ | ✓ | | | |
| **Step 6** | **Begin LED Program 12-Red Only.** | | | ✓ | | | | |
| **Step 7** | **Begin LED Program 11-IR Only.** | ✓ | | | | | | |
| **Step 8** | **Begin LED Program 1-Anti Aging.** | | | | ✓ | ✓ | ✓ | ✓ |
| **Step 9** | **Apply ABI's Foundation Line regimen.** | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |