

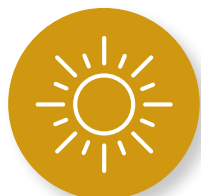
AN OVERVIEW OF

PHOTOBIO-MODULATION
THERAPY

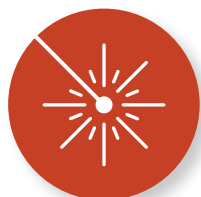
ASPEN LASER

AN ILLUMINATING HISTORY

LIGHT THERAPY: FROM THE ANCIENTS TO EINSTEIN ... TO ASPEN LASER



Throughout the ages, light has been recognized as an essential source of energy and healing. The ancient Greeks, Romans and Egyptians commonly practiced heliotherapy (the therapeutic use of sunlight) to treat various ailments. Then in 1917, Albert Einstein established the theoretical foundation for the laser, opening the door to a flood of advances in laser technology and therapy over the next century.



Ironically, one of the most promising uses of laser technology, known as “low level laser therapy” (LLLT), has remained largely untapped over the years. Introduced in the late 1960s as “cold laser therapy,” LLLT never realized its potential as a safe and effective mode of light therapy. This is largely due to the medical community’s lack of commitment in advancing the research and development of LLLT.

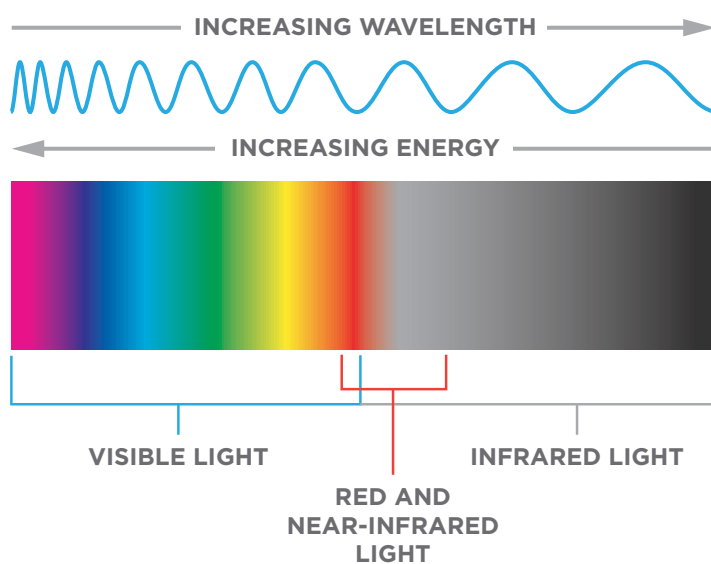
Until now.



After years of extensive research and exhaustive clinical testing, **Aspen Laser Systems** is proud to offer our revolutionary light therapy systems, the **Summit Laser Series** and the **Pinnacle Laser Series**. These innovative systems harness the power of light — specifically red and near-infrared light — to deliver positive, proven therapeutic results.

WHAT IS LOW LEVEL LASER THERAPY?

Low level laser therapy, now commonly referred to as **photobiomodulation therapy (PBMT)**, is the application of therapeutic red and near-infrared light to tissue that has been compromised by injury, disease or degeneration. All light is comprised of photons, which are submicroscopic energy particles that travel in the form of waves. Existing just beyond the spectrum of visible light, red and near-infrared light is characterized by long, “gentle” wavelengths which penetrate tissue and convey their restorative benefits at the cellular level. Because Aspen Laser’s systems are carefully calibrated to administer these therapeutic waves at precise frequencies, the healing effects are completely safe, totally non-invasive and clinically proven to be beneficial.



THE INNOVATIVE SCIENCE OF PBMT

ACHIEVING POSITIVE THERAPEUTIC OUTCOMES WITH LASER THERAPY

In its simplest terms, PBMT generates photochemical responses at the cellular level which increase circulation and cellular energy production while reducing inflammation and oxidative stress. PBMT also increases the rate and quality of tissue repair, improves muscle performance, enhances recovery and alleviates pain.

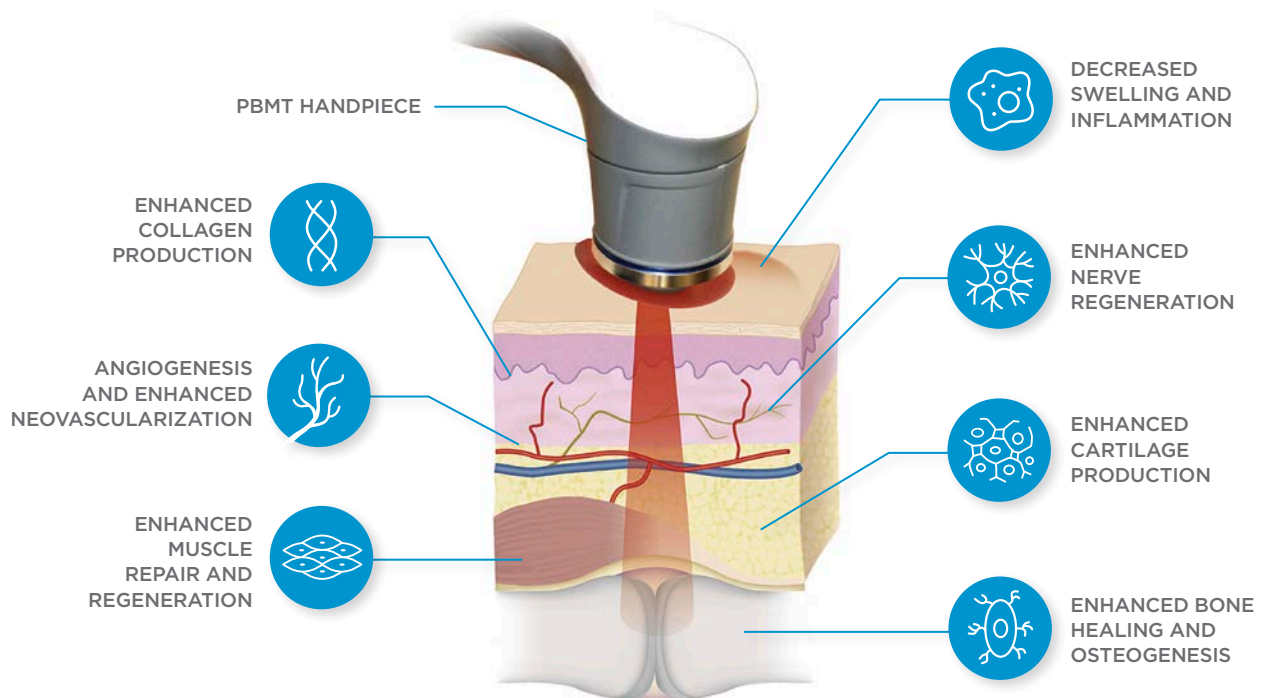
Aspen Laser's Summit and Pinnacle Laser Series, as their names aptly imply, represent the height of today's laser therapy standards. Backed by years of research and development, these groundbreaking systems use

a simple handpiece to deliver PBMT in a localized, region-specific manner. This allows for a more focused approach to treating specific areas of the body.

As the science and technology behind laser therapy has rapidly advanced over recent years, so has the role of PBMT as an effective and non-invasive mode of therapy. Quickly becoming a routine adjunct to countless treatment regimens, PBMT is reshaping healthcare by improving clinical outcomes and facilitating the healing process.

THERAPEUTIC BENEFITS OF PBMT

Photochemical responses at the cellular level



BETTER SCIENCE. BETTER RESULTS.

ONE TECHNOLOGY, COUNTLESS APPLICATIONS

Unlike injections and prescriptions which often simply mask the symptoms and do little to treat the injury, PBMT delivers light energy, comprised of photons, to damaged cells. These photons are absorbed by the cells and stimulate the mitochondria to accelerate the production of adenosine triphosphate (ATP), which boosts cellular energy. This biochemical increase in energy helps to transform cells from a state of dysfunction to a stable, healthy state. This results in reduced inflammation, increased blood flow, and the stimulation of tissue growth. PBMT also activates immunomodulation, or the body's own healing processes.

Aspen Laser's state-of-the-art systems are designed and manufactured to meet — and exceed — the industry's most exacting standards. Backed by vigorous clinical studies, our Pinnacle and Summit Laser Series have demonstrated positive outcomes in the treatment of virtually all regions of the body:

- Head and neck
- Arms and hands
- Hips and knees
- Shoulders
- Regions of the back
- Feet and ankles

AS AN INDUSTRY LEADER FOR THE PAST 30 YEARS, ASPEN LASER SYSTEMS REMAINS ON THE CUTTING EDGE OF PHOTOMEDICINE, PAVING THE WAY TO BETTER SCIENCE, IMPROVED CLINICAL OUTCOMES, AND HEALTHIER LIVES.



*The Pinnacle 30
Watt True Dual
Laser System*

IMAGINE: A LIFE WITHOUT PAIN

A REVOLUTIONARY TREATMENT FOR PAIN RELIEF

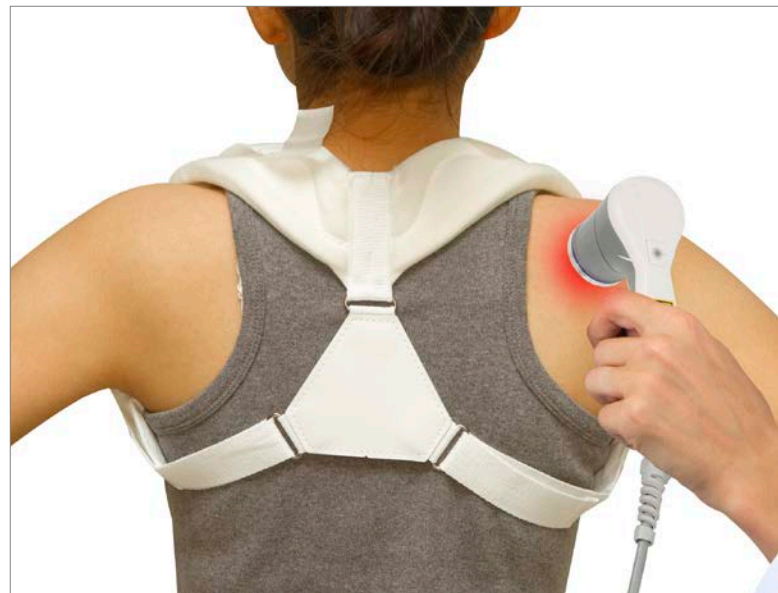
As average life expectancies continue to grow worldwide, the cells in our bodies are unfortunately subjected to increasing sources of oxidative stress. Oxidative stress is a direct contributor to inflammation, which leads to acute and chronic pain and is an underlying cause of many illnesses and chronic diseases. Compounded by the fact that negative lifestyle choices (obesity, smoking, lack of exercise, etc.) put many at higher risk for injury, pain management has become a significant area of emphasis in the medical community in recent years.

That is precisely why Aspen Laser Systems has worked so diligently over the past three decades to develop and perfect our laser therapy systems. To date, more than 500 published double-blind, randomly controlled studies and 5,000 laboratory studies have been performed studying the effects of PBMT. The consensus shows that PBMT is a dose-dependent technology that, when properly calibrated, can deliver profound effects on a wide spectrum of conditions which include:

- Arthritis
- Tendinopathies
- Nerve pain
- Soft tissue healing
- Nerve regeneration
- Musculoskeletal pain
- Anxiety and depression
- Sleep disturbances

The popularity of PBMT for pain remediation has also skyrocketed in recent years among both professional athletes and fitness enthusiasts. Studies have shown PBMT to be an effective adjunct to any fitness regimen. From weekend warriors to world-class athletes, PBMT enhances recovery by promoting tissue regeneration and reducing the production of lactic acid, creatine kinase, and C-reactive protein.

Whether the pain is rooted in an underlying pathology or the result of an injury, Aspen Laser's systems have been engineered to ease the devastating burden of pain.



BENEFITS OF PBMT:

INFLAMMATION

Inflammation reduced by the stimulation of inflammatory mediators such as macrophages, neutrophils, and lymphocytes, as well as the reduction of harmful free radicals



VASCULAR SYSTEM

Increased angiogenesis and neovascularization improves circulation, reduces swelling, and improves lymphatic drainage



PAIN MANAGEMENT

Substantial and longer-lasting pain reduction by decreasing bradykinin, releasing endorphins, normalizing ion channels, and decreasing nerve sensitivity



NERVE TISSUE

Increased proliferation of the growth factors that promote neuronal sprouting, which improves nerve function and regeneration



CELLULAR HEALTH

Cellular performance enhanced by the stimulation of certain enzymes directly related to greater oxygenation, cellular synthesis, and intercellular exchange



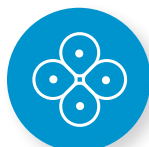
IMMUNE SYSTEM

Immunoregulation boosted by the direct stimulation of immunoglobulins and lymphocytes

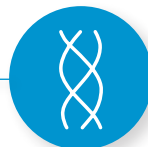


STEM CELL GROWTH

Increased proliferation of stem cells, which enhances the body's healing processes

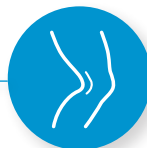


SYSTEM BY SYSTEM



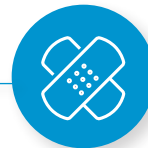
SCAR TISSUE

Enhanced collagen production reduces the formation of scar tissue and related pain resulting from repetitive motion injuries, cuts, scratches, burns or surgery



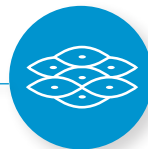
JOINT HEALTH

Cartilage health is optimized by an increase in chondrocyte and collagen production, which improves cartilage deposition and joint function



INJURIES

Stimulated fibroblast formation in damaged tissue leads to an accelerated and more efficient healing process



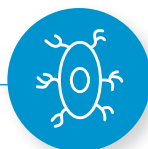
MUSCLE TISSUE

Deep tissue penetration stimulates cellular reproduction and growth, resulting in the repair of damaged muscle fibers and activation of myogenic satellite cells



HOLISTIC THERAPIES

PBMT is effective in eliminating painful trigger points and is an excellent alternative to acupuncture therapy



BONE HEALTH

Proliferation of osteocytes and remodeling of bone extracellular matrix allows for accelerated, more efficient bone repair



PATHOLOGIES

Both acute and chronic pathologies respond well to the photochemical mechanisms of PBMT, contributing to an improved quality of life

ASPEN LASER

175 N 1800 W
SUITE 108
LINDON UT 84042

877.782.7736

AspenLasers.com