

Laser Therapy: A Non-Invasive, Drug-Free Solution for Pain

By increasing localized blood circulation, low level laser therapy (LLLT) allows medical professionals to provide their patients with a non-invasive, drug-free solution for pain relief and tissue regeneration. It is one of the most researched and published modalities in physical rehabilitation.



Benefits of Laser

Laser therapy has demonstrated a multitude of clinical benefits that include:

- Symptomatic relief of minor muscle and joint aches, pains, and stiffness
- Increased local blood circulation
- Muscle relaxation and muscle spasm relief
- Relief of minor pain and stiffness associated with arthritis
- No sensory changes, ideal for patients with sensory issues
- A non-contact method for patients who cannot be treated with gels, pads or adhesives
- Pain relief for patients who do not wish to take, or are intolerant of, pain medication

The Vectra[®] Genisys Difference

The Vectra Genisys Laser System is an easy-to-use, dedicated laser device. It features an innovative case design, clear and logical operating software, onboard rationale and Clinical Protocols,[™] and User Protocols to help keep track of frequently used programs.

Simply put, the Vectra Genisys Laser System is designed to be sophisticated, versatile, and yet the most user-friendly laser system on the market.



Vectra[®] Genisys Laser Features

- Independent control over all parameters
- Dosage displayed in choice of joules or joules/cm²
- Pulsed and continuous treatment operation (90% and 100%)

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- Fully variable pulse frequency range of 8Hz – 10000Hz and continuous
- Real time dosage delivered feedback
- Useful selection of clinical indications
- Ten user-defined memory positions for user protocols
- Choice of eight interchangeable Laser Diode and Cluster Applicators with wavelengths ranging from 670 nm- 950 nm and output power ranging from 100 mW - 1440 mW (dependent upon applicator)
- All laser applicators are interchangeable due to Electronic Signature[™] recognition residing on each applicator
- Unit uniquely designed for table top, wall mount, therapy cart or mobile use
- Laser protective eyewear included (2 pair)

Vectra Genisys Laser Applicators are ergonomically designed to be comfortable and easy to use.

Evaluating Laser Therapy: Factors Affecting Light Source Penetration

Collimation, Wavelength and Power affect depth of penetration and are important criteria for evaluating Laser Therapy. Selecting the right laser applicator needs to be based upon the type and depth of conditions being treated.





Collimation relates to the spot size or spread of the light source. The more focused the beam, the deeper the light source penetrates before scattering in the tissues. When comparing the light sources at the same power output, a focused laser light beam penetrates further into the target tissue than non-collimated, non-focused light, such as SLD's and LED's.

Wavelength also affects the depth of penetration: the longer the wavelength, the deeper the penetration. Infrared light penetrates deeper than red light.

Power is the amount of light energy delivered per unit time. Higher power increases the effective depth of penetration and takes less time to deliver the same amount of energy.

A high-powered SLD or LED light source, even at longer wavelengths, may not deliver a therapeutic dose to tissues of moderate or deeper depth.

Therapeutic Sources of Light

In modern equipment, three different sources of light are commonly used. All three of these light sources are administered therapeutically. However, each light source has its own uses and characteristics with the main difference being their depth of penetration into body tissue.

Laser Diode

- Collimated light with a small spot size in the invisible near-infrared range of light
- Wavelength range of approximately 700 to 1000 nanometers (nm)
- These devices allow light to penetrate deeper into the body than light from SLD's or LED's and offer greater versatility in treating both superficial and deep conditions.

SLD's - Super Luminous Diode

- Non-collimated light with a larger spot size in the visible red or infrared range of light
- Wavelength of 660 to 950 nm
- SLD's overall depth of penetration is less than laser diode generated light, however, it's generally greater than LED's. Super Luminous Diodes are commonly used in treating superficial conditions.

LED's - Light Emitting Diode

- Non-collimated light with the largest spot size in the visible red range of light
- Visible red LED's wavelength range is 620 to 690 nm
- This light reaches only a few millimeters into the body's tissues, ideal when the condition is very close to the surface.

Vectra® Genisys Laser Applicators

One of the most comprehensive selections of laser applicators cleared by the FDA.

Chattanooga Group's Vectra Genisys Laser System offers a selection of eight interchangeable laser applicators with a wide array of diode configurations.

Providing multiple wavelengths and a broad power range, the Vectra Genisys Laser System can effectively treat a variety of superficial and deep clinical conditions.

Vectra® GENISYS









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Single Laser Diode

- Ideal for knee, wrist and ankle
- Available in 100 mW, 200 mW and 300 mW power

9 Diode Cluster

- Ideal for for neck and shoulder
- Four LED's and five Laser Diodes
- Available in 540 mW and 1040 mW power combinations

13 Diode Cluster

- Ideal for thigh, shoulder and back
- Seven LED's, three SLD's and three Laser Diodes
- Available in 415 mW and 715 mW power combinations

33 Diode Cluster

- Ideal for large body areas such as shoulder and lower back
- Twelve LED's, sixteen SLD's and five Laser Diodes
- 1440 mW total power

All eight Vectra Genisys Laser Applicators are interchangeable thanks to our innovative Electronic Signature™ technology.



Making Laser Mobile Portable Therapy

Perfected

The versatile Vectra[®] Genisys Laser is equally adept in the field or training room as it is in the clinic or home care setting. With its lightweight design, batterypowered option and customized carrying bag, therapy is now no longer confined to the clinic.



IN THE CLINIC ...

Therapy System Cart

- The Therapy System Cart provides six concealed storage bins to conveniently house your clinical essentials while keeping them close at hand
- The Cart Adapter allows the unit to attach securely to the therapy cart providing a "laser therapy station" that is compact, secure, balanced and fully functional





ON THE GO...

Carrying Bag

- The custom designed Carrying Bag is lightweight
- Protect and transport the unit and accessories for therapy on the go

Battery Pack

- Designed for portable therapy treatment...
 - on the field
 - in the training room
 - in the home



Moving Rehabilitation Forward[™]

Vectra® GENISYS

Ordering Information

Vectra Genisys Laser Therapy System

2784K - Vectra Genisys Laser with options (Choose options when placing order)

Vectra Genisys Laser Options

Accessory Kits

- 2914K Battery Pack and Carrying Bag
- 2892K Therapy Cart and Cart Adapter

Accessory Kits

- 27467 Carry Bag
- 27478 Battery Pack
- 28139 Cart Adapter
- 2775ASY Therapy Cart

Vectra Genisys Laser Applicators

- 27840 Single Diode Applicator 100 mW total power Laser Diode 1 x 850 nm
- 27841 Single Diode Applicator 200 mW total power Laser Diode 1 x 850 nm
- 27805 Single Diode Applicator 300 mW total power Laser Diode 1 x 820nm
- 27811 9 Cluster Diode Applicator 540 mW total power LED's: 4 x 670 nm/10 mW Laser Diodes: 5 x 850 nm/100 mW
- 27812 9 Cluster Diode Applicator 1040 mW total power LED's: 4 x 670 nm/10 mW Laser Diodes: 5 x 850 nm/200 mW
- **27814** 13 Cluster Diode Applicator 415 mW total power LED's: 7 x 670 nm/10 mW SLD's: 3 x 950 nm/15 mW Laser Diodes: 3 x 850nm/100mW
- 27816 13 Cluster Diode Applicator 715 mW total power LED's: 7 x 670 nm/10 mW SLD's: 3 x 950 nm/15 mW Laser Diodes: 3 x 850 nm/200 mW
- 27808 33 Cluster Diode Applicator 1440mW total power LED's: 12 x 670 nm/10 mW SLD's: 8 x 880 nm/25 mW 8 x 950nm/15mW Laser Diodes: 5 x 850 nm/200 mW









Technical Specifications

Mains Power :

120-240 VAC, 50/60 Hz
 S0/60 HZ

 Product Weight : 5 lb (2.3 kg)

 Product Length : 12.9 in (32.8 cm)

 Product Width : 11.3 in (28.8 cm)

 Product Height : 6.4 in (16.3 cm)

 Safety Tests : 21CFR 1040.10 &
1040.11, IEC/UL/ EN 60601-1 IEC/EN 60601-1-2, IEC/EN 60601-2-22, IEC 60825-1:2001



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Electrical Class : Class 1, Type B Laser Class : **3**R





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800.592.7329 USA

800.361.6661 Canada 800.242.8329 Fax ©2007 Encore Medical, L.P. and Affiliates 4561D 0307