



J-Ray Therapy/Surgery/Cautery Laser System



The Most Versatile High Dose Veterinary Laser System

- **Therapy:** Up to 15 watts at 810nm and 15 watts at 980nm in a pulse mode to minimize heat and maximum high dosage, with 30W Peak Power!
- **Surgery:** Diode laser surgery that provides tactile feel by contacting the tissue, cauterizing the blood vessels and the nerves while cutting!
- **Cauterization:** Cauterization of blood vessels and ablation of undesired growths, with superior patient & surgeon safety!
- **Stimulates Trigger Points and Acupuncture Points:** stimulates muscle trigger points, restoration of muscular tonus and balance !
- **An Additional Profit Center for your Practice!**

The J-Ray—A Wave that makes a True Difference

High Dose

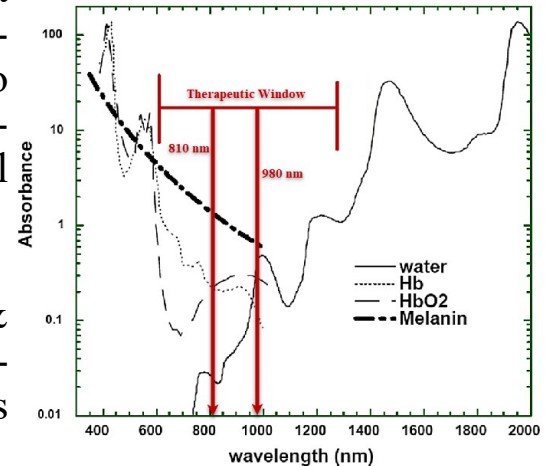
When you combine more power with the correct wavelengths you get deeper penetration, faster treatment times and the ideal therapeutic dosage, so you can treat difficult conditions, and get better clinical results.

Power

The J-Ray Lasers can deliver considerably more therapeutic photonic energy than all other Class II and III therapy lasers and most Class IV veterinary therapy lasers available on today's market. The J-Ray Lasers were engineered to produce the optimal power and protocols for Veterinary Clinics and Mobile Practices. Power does equal penetration!

Wavelengths

The optimal therapeutic wavelength of 810 nm & 980nm are used for maximum penetration and efficacy, with choice of operating modes from continuous wave (CW); single pulse & pulsed modes.



"I have been VERY PLEASED with my J-RAY Therapy laser. The more common conditions I use it for are stifles , hips, strained muscles , neck injuries , sore backs blocked Tom cats and cat stomatitis. The most rewarding treatment was a horse with a severe painful poisonous snake bite wound. Laser treatment lessened the pain , reduced swelling and aided in tissue healing. I am a veterinarian but I treat a lot of sore Cowboys!"

Written by Dr. Dail McLawhorn, DVM, McLawhorn Animal Clinic, Greenville, North Carolina

Biological Effects of Laser Therapy

- **Accelerated Tissue Repair And Cell Growth** – accelerate cellular reproduction and growth. Cells of cartilage, bone, tendons, ligaments and muscles are repaired faster as a result of exposure to laser light.
- **Reduced Fibrous Tissue Formation** – Laser therapy reduces the formation of scar tissue following tissue damage and acute and chronic inflammatory processes.
- **Anti-Inflammation** – Laser light therapy has an anti-inflammatory effect, causes vasodilation and activation of the lymphatic drainage system, reducing swelling caused by biomechanical stress, trauma, overuse, or systemic conditions.
- **Analgesia** – Laser therapy has a beneficial effect on pain



through the suppression of nerve signal transmission over unmyelinated c-fibers that transmit pain to the brain. Another pain blocking mechanism involves the production of high levels of pain killing chemicals such as endorphins and enkephalins from the brain and adrenal gland.

- **Improved Vascular Activity** – Laser light will significantly increase the formation of new capillaries (angiogenesis) in damaged tissue that will speed up the healing process.
- **Increased Metabolic Activity** – Laser therapy creates higher outputs of specific enzymes
- **Improved Nerve Function** – accelerates the process of nerve cell regeneration and increases the amplitude of action potentials
- **Immunoregulation** – stimulation of immunoglobulins and lymphocytes
- **Stimulates Trigger Points and Acupuncture Points** – stimulates muscle trigger points, restoration of muscular tonus and balance

"Since adding the Class 4 laser therapy to our practice, we have seen an increase in the number of pets that were previously on pain medications be able to discontinue those or decrease the dosage. This has been a tremendous help with hot spots, lick granulomas, ear infections and other skin conditions that were just being "maintained" previously. We use this machine to treat something every day that we see pets, from post-op therapy to longer maintenance it has added an undeniable benefit to our practice. We have even had a few clients come to us because we now offer this service. I am very pleased with the results of using this therapy. The results we have observed from this machine is proof enough that the J-Ray class 4 laser therapy truly performs as was explained and we are excited to continue to grow our practice with this option available for clients."

Libby Ratcliff (RVT & Practice Manager) | Fling Pet Clinic, Hillsboro, Ohio



Blue, a 2-year old Bernese Mountain Dog, suffered from pyotraumatic dermatitis. Her veterinarian, Dr. Laurie Dohmen, recommended laser therapy, and the J-Ray Class IV Laser System to the rescue!



Day 1: Presenting Symptoms



Day 8: After 3rd & final laser treatment!



Day 15: Blue is doing great completely healed!



Laser Surgery with the J-Ray

Diode laser energy can be applied superficially, as well as in open and endoscopic surgery. Thin flexible fibers deliver required amounts of energy into the body in a minimally-invasive technique. Both cutting and coagulation are performed in a single step!

- **Reduced pain**
- **Reduced bleeding**
- **Reduced swelling and faster recovery**
- **Maintain tactile feel with precise power & frequency control**

Our veterinarians have used the J-Ray Laser System in surgery with amazing results! Using the proper techniques for diode laser surgery, the delivery of laser energy can be enhanced by conditioning or initiating the tip of the fiber. Using one of three different techniques, provided with our live training, the fiber tip is exposed to various carbon sources while under power. This results in the tip of the fiber being coated with a thin layer of carbon. Conditions that can be treated with our J-Ray include: Acral Lick Granuloma, Ablation, Anal Sac Abscessation, Castration, Ceruminous Adenocarcinoma, Chronic Ulcer Debridement and Sterilization, Cranial Cruciate Ligament Rupture – Debridement, Cutaneous Masses, Tags, Cysts, Papillomas, Declaw, Deep Mass Removal, Epibulbar Melanoma, Fibrosarcoma, Graft Bed Preparation – Infected Wounds, Granulation Tissue Shaving, Inclusion Hemangiopericytoma, Hemostasis, Hepatic Carcinoma – Partial Hepatic Lobectomy, Liposarcoma Resections, Mast Cell Tumors, Perianal Fistulas, Perianal Tumors and Many Other Surgeries!

“After using a co2 laser and therapy laser for the last 10 years the J-ray has become a welcomed addition to our practice. The dual capabilities make it versatile both medically and financially. At the price point the J-ray would be a great addition to any practice. It has more than achieved our expectations.” **Written by Dr. Nathan Metz, DVM, Metz Petz Veterinary Clinics, Ada & Shawnee, Ohio**



This image shows the J-Ray Laser System in surgery mode during a feline neuter. The J-Ray Surgery hand-piece with an initiated fiber tip is able to incise and ablate, with practically no loss of blood by cauterizing the blood vessels and the nerves, thus less pain. The surgeon commented how easy diode laser surgery is with precise control and no bleeding.



Achieving Hemostasis through Photonic Cauterization

"Cauterization (or cauterisation, or cautery) is a medical practice or technique of burning a part of a body to remove or close off a part of it."

The J-Ray Laser System provides exceptional cauterization of blood vessels and ablation of undesired growths, with superior patient & surgeon safety. Since the cauterization is done with the same handpiece as laser surgery, it's very easy to use, and very intuitive!

"The posterior laryngofissure incision using a 980-nm contact diode laser (CDL) is feasible resulting in smaller incisional area and less lateral thermal damage."

"The lateral thermal damage produced by electrocautery was the largest, with a significant difference between laser and electrocautery"

"Regarding bleeding, the incisions performed with diode laser promoted a lower bleeding rate compared with scalpel and electrocautery"

"... however, surgeries performed with the laser also revealed a significant reduction in virus load per cell compared with those performed with electrocautery. The ease when handling the diode laser, because of the flexibility of its fibers and precision of its energy delivery system, provides high-accuracy surgery, which facilitates the treatment of large and/or multifocal lesions. The use of high-power diode laser is more effective in treatment protocols of lesions..."

The J-Ray Cautery tool provides greater precision (the tip is 600 um in diameter) than most electrocautery units.

Talk about safety, the J-Ray Cautery handpiece is FAR safer than any electrocautery unit, since it uses light to create the heat, thus no concern about electrocution. Since it's using light, it cools down immediately, so no concern for excess tissue damage or user burns.

These images show the J-Ray Laser System in cauterization mode during a tumor removal. The surgeon, Dr. Emily Janovyak, commented, "So when I'm using it for cautery, see how nicely that works, I'm just trying to minimize my bleeding here because mass removals bleed a ton."

