



Therapy for Performance

20 Baldwin Drive | Branford, CT 06405 | USA
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Therapy for Performance



Class 3 and 4 Lasers and
Bio-Pulse Magnetic Field Therapy

Over 30 Years of Innovation.



RESPOND A division of Respond Systems, Inc



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About RSI Equine

Precision.
Endurance.
Performance.

RSI Equine, a division of Respond Systems Inc, is dedicated to the health, well-being and vitality of the horse, one of the world's most magnificent animals.

Peak conditioning is required for elite performance, and this is where RSI Equine plays an integral role. Backed by 30 years of experience manufacturing laser and pulsed magnetic field therapy (PEMF), our products have become an industry standard for conditioning, pre and post exercise and competition, and have become a therapy of choice for the healing of injuries.

Elite trainers, therapists, veterinarians and Olympic Gold medal winning athletes have used RSI equipment since our founding in 1983 to help condition their horses to the top level of performance.

Hundreds of studies over decades prove the efficacy of both laser and PEMF in decreasing inflammation, accelerating healing and in

pain management. Please refer to our website, RSIEquine.com, for a full bibliography of published studies and research.

By dedicating ourselves to individual service and customer experience, RSI stands apart from all others in the industry. No horse is the same, and no injury is the same, and our team of caring professionals works with you to find the right solution for you and for your horse. 30 years of science, customer feedback and testimonials inform our guidance to find the right treatment to target the condition, build your horse back to optimal health, and then maintain that peak condition.

Laser Therapy and PEMF are safe, non-invasive and proven therapies that help support the well being of the horse, often offering an alternative to costly drugs or surgery that may cause side effects, and keep you out of the ring, or off the course for months at a time. We look forward to becoming a part of your team and working to ensure that our partnership with the horse both in sport and as companions is a respectful one in which the horse can flourish in both health and spirit.

Why RSI Equine?

Made in the USA since 1983

Respond Systems Inc. has been manufacturing laser and pulsed magnetic field therapy systems for the equine market since 1983. With more than three decades of research, innovation and client feedback, we customize our systems to the unique needs of our equine customers. Top of the line durability is a pre-requisite for usage in the barn and on the road at shows, and all of our systems are expected to last at least ten years and often last more than twenty years in service.

A proud, second generation family business, we design, manufacture and service all systems at our 30,000 sq.ft. headquarters in Branford, CT, USA. Proximity to the vibrant horse culture of the New York Suburbs and the highly educated workforce of Southern New England ensures our connection to the forefront of our industry.

Top Quality Support & Consultative Rentals

As a customer, you have access to our growing library of treatment protocols used by top equine athletes and veterinarians aggregated over three decades, along with the depth of knowledge of experienced staff specialists who can assist you with treating your horse's unique problem. Our specialists are available via video conference to help walk you through the set up and use of your

laser or PEMF system, or to advise on a particular case. We also offer the option to rent an RSI Equine System for the short term, in the case that you need a system for an acute injury, or for a show. Our staff will work with you during the rental period to demonstrate the benefit of our systems, and provide the information needed for you to make a wise buying decision.

Innovation & Commitment to Research

With our manufacturing and operations offices side by side at the Branford office, there is a free flow of ideas between our engineering and research teams. This allows RSI to innovate as technology and science provide us opportunities to study new features and functions that will drive forward the fields of laser and PEMF therapy.

Support & Sponsorship of Equestrian Athletes

RSI Equine is proud to sponsor and support not only top equestrian athletes but also a number of non-profit organizations whose mission it is to ensure the health and well-being of horses and nurture the powerful relationship between horse and man. Visit RSIEquine.com to see a full list of our partners and sponsors.



RSIEquine.com

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“ I was totally unprepared for the world of veterinary rehabilitation when I went to my first International Rehabilitation Conference in 2003. I took numerous classes and was always struck by that piece of equipment that all veterinary rehab specialists said they “couldn’t live without”, the therapeutic laser. I was fortunate to meet the Hudsons, the founders of Respond Systems. After 9 years, numerous upgrades as the technology changes and unbelievable service I certainly made the right choice. I have taught rehabilitation in the classroom and at international conferences. I have taught laser theory all across the country and can say that Respond Systems (RSI Equine) and their products have true science behind them and the first-rate service to make all of their products a joy to use. ”

H. Steven Steinberg,
VMD, ACVIM (Neurology), CCRT
Chief of Staff VCA VRA, Gaithersburg, Maryland

About PEMF

Since the 1970's, performance horses have been treated with Pulsing electro-magnetic field (PEMF) therapy to treat fractures and injuries, to aid in pre or post competition conditioning, warm up and recovery. The oldest and most trusted name in the industry, Respond has sold thousands of PEMF systems to veterinarians, owners, therapists, trainers and riders around the World, and has been a proud sponsor of the USET for over 20 years.

RSI Equine PEMF Therapy offers the following benefits:

- Reduction in inflammation
- Increase in circulation
- Acceleration of the healing of injuries
- Healing of non-union fractures
- Pain management
- Aid in both pre and post exercise/competition by increasing blood flow to muscles
- Non-pharmaceutical

Conditions Treated:

- Arthritis
- Spine Pain
- Fractured Bones
- Joint Conditions
- Nerve Damage
- Swelling
- Tendon/Ligament Injuries
- Stiffness

“We use the Sentry Blanket before and after every competition, to loosen stiff muscles and aid in recovery.”

Beezie Madden
2013 World Cup Finals Champion and three-time U.S. Olympian



What is pulsing electromagnetic field therapy (PEMF)?

Many people are familiar with PEMF, in use since the 1970's and approved by the FDA to heal non-union fractures. PEMF uses pulsing magnetic fields, developed by pulsing a small amount of electrical current through coils of wire, to **jumpstart and accelerate** normal biological cellular reactions.

Very simply, cells contain electrically charged particles, called ions, which cause a weak, natural electrical current to flow. PEMF creates a magnetic field in motion, which activates the cellular ions pumps and **improves the metabolic rate of the cell**. This process increases circulation, decreases inflammation and pain and accelerates healing.

Why is it called “pulsing” magnetic field therapy?

The most effective form of signaling cells is to send a series of magnetic pulses, of the proper frequency and wave form to stimulate cellular action. The Bio-Pulse systems generate

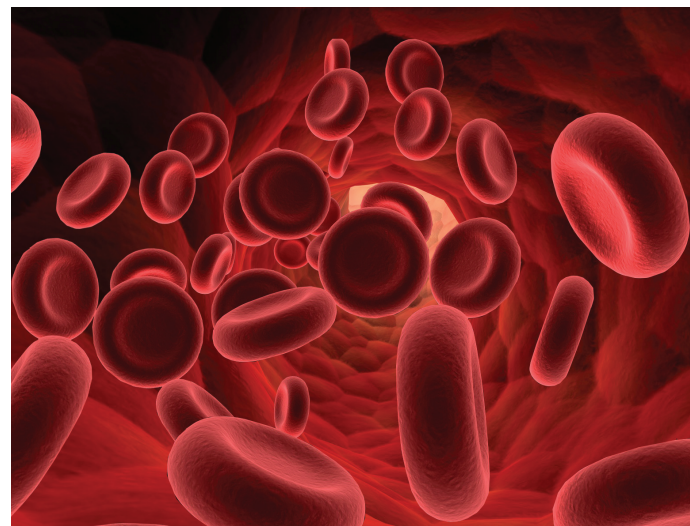
a frequency and wave form which was recommended as the most effective by Dr. C.A. Bassett in his landmark work at Columbia University Hospital.

Pulsing Magnetic therapy penetrates completely through the joints and muscles. The strength of a magnetic field is directly related to the size and the composition of the magnet, and determines the depth of penetration. When you pulse battery current through the coils of the RSI Equine Bio-Pulse systems, you are turning each coil of wire into a large, pulsing magnet with a **magnetic field up to 15"** away from the coil source. This penetration cannot be achieved via a static magnet.

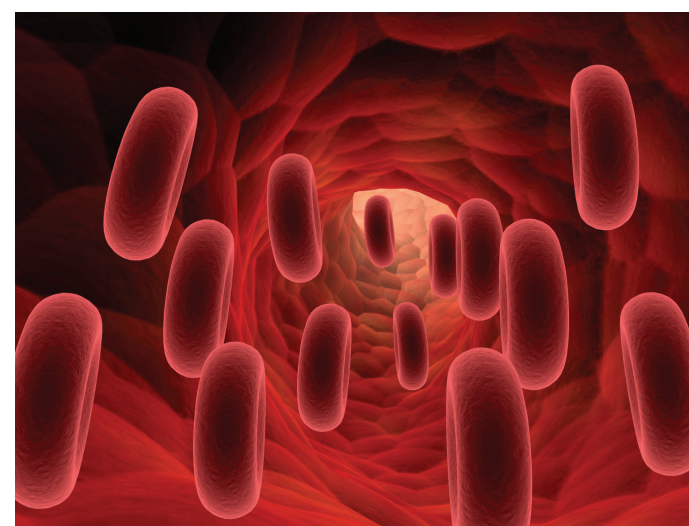
What can I expect from PEMF therapy?

PEMF therapy is a relaxing, healthful therapy than can reduce or eliminate the need for pharmaceuticals if your horse suffers from an injury, arthritis, joint disease, soreness or other painful conditions. You will usually see a difference in 1 to 2 weeks of therapy, a difference in the way they rise, walk and run.

Average Blood Flow



Linear Magnetized



Bio-Pulse Sentry



The Bio-Pulse™ Sentry Blanket Magnetic Therapy System

Features:

- 14 coils placed to cover all major muscle groups including hamstrings and inside stifle
- Lightweight, breathable mesh sheet for comfort
- Battery powered for up to 20 treatments per full charge
- 110-240V, 47-63Hz Charger for overnight battery recharge
- Wheeled Tote Bag
- Built in 30-min timer
- 7 Pulsing Frequencies
- LED on each coil to ensure functionality
- User guide for quick start
- One-Year Warranty



30 Coils in a Complete Sentry System

Sentry Accessories

The Bio-Pulse Sentry Blanket comes equipped to add individual treatment wraps targeted to specific trouble areas of the horse:

The Meyers Neck Wrap

Conditions Treated:

- Shortened Forelimb Stride
- Forelimb lameness
- Abnormal head carriage
- Muscle atrophy and stiffness

The Meyers Neck Wrap has four coils that deliver pulsing magnetic therapy to the cervical spine and associated muscles to help **alleviate pain** and help **accelerate healing** at the source of the condition or injury causing the above related symptoms.

Whether it be Quarter Horses with their low head carriage, Dressage horses bending at the poll, a Jumper with front end concussion or your older horse with arthritis, daily use of the Neck Wrap can help your horse.



Legging and Hock Boots

The Leggings have both cannon and hoofs coils targeting the tendons, ligaments and bones from below the hock or knee to hoof.

Conditions Treated:

- Bucked Shins
- Ligament injuries
- Bowed tendons
- Fresh and delayed union bone fractures
- Fetlock and pastern injuries
- Sesamoid
- Suspensory injuries/DDFT

The Hock Boots have two smaller coils for complete penetration of the hock to aid in treating injured and arthritic hocks.



All accessory products come complete with wiring to plug into the Bio-Pulse Sentry Blanket to run all systems via the same battery and power control unit during one 30-minute treatment.

Maxi-Pulse Standalone PEMF Systems

Bio-Pulse IRON FOOT

Maxi-Pulse Legging

This standalone PEMF legging treats the hoof capsule and leg below the knee.

This legging treats:

- Bucked Shins
- Ligament injuries
- Bowed tendons
- Fresh and delayed union bone fractures
- Fetlock and pastern injuries
- Sesamoid
- Suspensory injuries/DDFT



Maxi-Pulse Hock Boot

The Maxi- Pulse Hock Boot is ergonomically designed to treat existing injuries and to prevent failure of the hock joint.

Conditions Treated:

- OCD
- Degenerative Joint Disease
- Tendon issues
- Arthritic conditions

Some conditions treated and prevented with the Iron Foot:

- Fractures
- Pedal Osteitis and Degenerative joint Disease
- Abscesses
- Hoof Cracks & Quarter Cracks
- Founder & Laminitis
- Navicular Syndrome
- Injuries to Metacarpals, Fetlock, Pastern & Sesamoids
- Soft Tissue Injury Below the Knee

Features:

- Optimally sized to accommodate horses of all sizes
- 31" x20" x1" molded rubber pad of 40 durometer hardness
- Four pulsing coils with field strength extending to the knee
- The only low profile PEMF pad with beveled edges for safer entry/exit to pad to prevent injury
- Attached control unit and battery
- Three frequency settings
- No cables or power cords needed
- Times 30-minute treatment with auto shut-off
- Leather straps for ease of transport
- One-year warranty on entire system



“The Respond Systems Iron Foot Pad has become a mainstay in our horse management program. Our event horses feet are arguably the most important body part related to their soundness and every upper level horse in the barn stands on the iron foot for 25 min daily while they are getting tacked up or groomed. It maximizes circulation in their feet, naturally alleviating pain, bruising, or soreness, and has significantly improved their performance as a result! We love it and our horses love it!”

Will Coleman
2012 U.S. Olympian



Laser Therapy

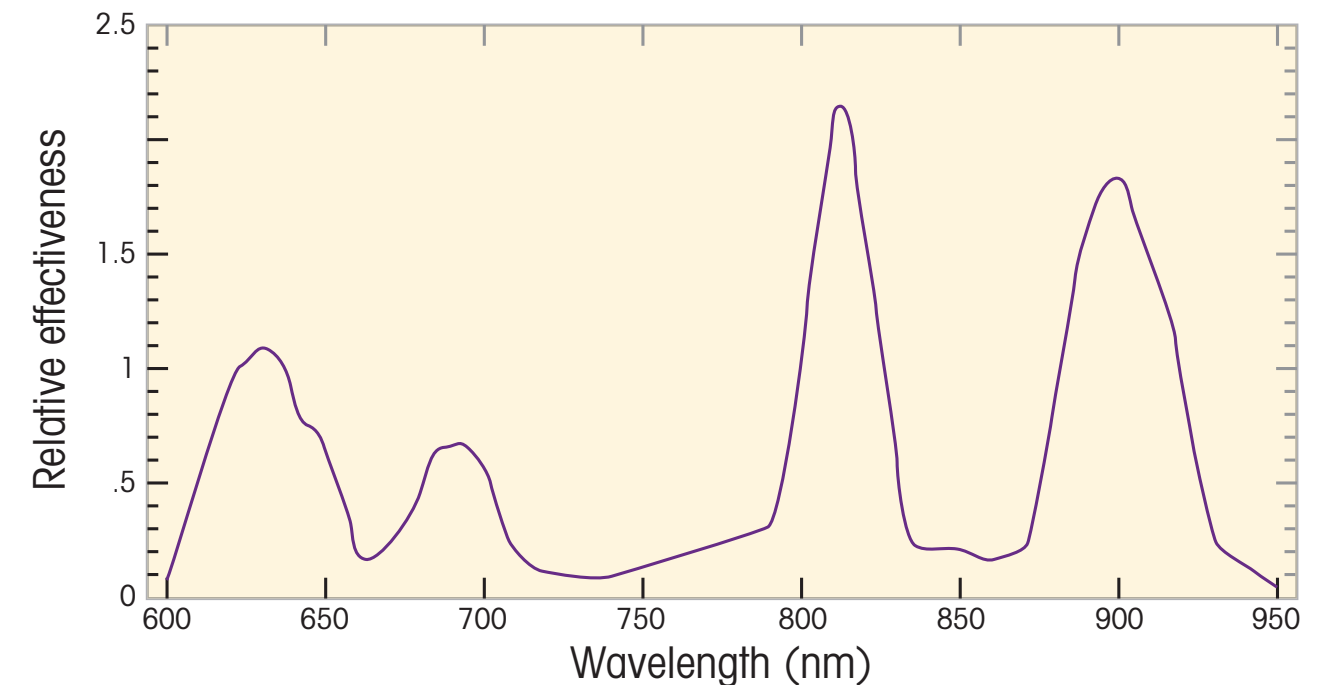
Laser Therapy is a painless treatment that uses clinically tested wavelengths of light to **stimulate natural biological processes** leading to **faster healing** and **pain relief**. Like plants absorbing sunlight through photosynthesis, cells in the body absorb laser energy that stimulates the body to release endorphins, reduce inflammation and stimulate the healing process. There are **no side effects** and many times laser therapy can take the place of pharmaceuticals and surgery to treat chronic, degenerative conditions. In over 1,800 publications worldwide since the 1960's, laser therapy has demonstrated its **non-invasive, non-toxic quality**, and its efficacy in the treatment of acute pain, chronic and degenerative conditions, improving the speed and quality of wound healing, and for muscle, tendon and ligament injuries.

Equine Conditions Treated with Laser Therapy:

- Suspensory tears (soft tissue injury)
- Stifle injury
- Degenerative Joint disease
- Arthritis
- Sesamoiditis
- SI Pain
- Wounds and more

Action spectrum for LLT effects in cells, animals and patients

Data shown are an amalgamation of many literature reports from multiple laboratories.



Source: Hamblin, Michael, R, Demidova, Tatiana N.,k Mechanisms of Low Light Therapy, Proc. of SPIE Volxxxxx(2006)



“Respond Systems Lasers are simply the best, the LuminexVet class 3b laser has all the power and penetration capabilities you will ever need to meet your objectives for soft tissue rehab or preventative maintenance of your equine athlete”

Tom Meyers
Equine Therapist
U.S. Team Physiotherapist for
1996 Olympics & 2006 World Games

Why an RSI Equine Laser System?

Class 3 & Class 4

All laser devices are classified by the FDA based upon the hazard they present. Class 3b and Class 4 lasers are commonly used for Laser Therapy, with Class 4 being the highest powered and presenting the greatest hazard to the eye, and requiring the most precautions. It is important to note that laser class is only about safety, and has nothing to do with the effectiveness of a device. At RSI Equine, we manufacture both Class 3b and Class 4 lasers providing our customers with clear options to fit their needs.

High power lasers at the Class 4 level can greatly reduce treatment time due to the power level and we have engineered our Class 4 to treat multiple horses quickly and safely. Laser Therapy is a stimulus for natural healing and should never burn. By dispersing the power density over a 50sq cm area, we have engineered our Class 4 laser system to deliver high power safely and effectively.

Wavelength

RSI Equine laser systems use only 670nm (red wavelength for surface use), 808nm and 904nm wavelength lasers in all of our systems, due to their well-researched positive effects, and the deep penetration of laser light at the 808nm and 904nm wavelengths. In studies, both 808

and 904nm, in the near-infrared range, permit more laser energy to **penetrate deeply into the tissue**, joints and muscles, stimulating healing without the absorption at the surface that causes heating and burning.

Two Types of Laser: Continuous vs Super-Pulsed

Two types of lasers are commonly used in laser therapy, continuous wave (CW) lasers, and what is commonly known as “super-pulsed” lasers. Both CW and super-pulsed lasers produce the same beneficial laser light, they just deliver the light to the tissue differently. CW lasers deliver a constant, stable output power, ideal for many treatment situations. Super-pulsed laser uses very short pulses of laser energy, just fractions of a second, but at very high power (up to 200 Watts) to enhance laser penetration into deep tissue. Turning the laser on for a brief period at high power pushes the healing energy of laser deep into tissue, **without the risk of heating or burning** that can arise when using other high power CW laser systems. A recent study of super-pulsed laser penetration found our Respond 904nm super-pulsed laser probes penetrate through more than 5” of tissue, including through an equine neck and hock, and caused no measurable rise in tissue temperature.

Laser Therapy Products

The following laser systems are listed in order of power from lowest to highest. Each system contains the features of the one before plus added advantages and upgrades listed below. All systems are designed to be administered in contact mode, with the probe flush to the tissue.



2400 Series

2400VS

Features:

- Class 3b
- Choice of two laser probes:
 - 808nm 500mW continuous wave
 - 904nm Super-Pulsed wide head with 6 diodes
- Ability to select dosage in joules with audible time notification of dosage delivery
- Touch pad volume and pulse frequency control
- Portable, rechargeable battery pack with 110V charger
- Portable unit with carrying case and shoulder strap
- Acupuncture tip
- One-year warranty



Continuous Wave Probe



Super-Pulse Probe

Carrying Case & Shoulder Strap



Choice of two probes each uniquely engineered to deliver the most effective treatment based on the type and depth of the condition to be treated.



Designed from expertise gained from 30 years in the business, the Luminex series delivers the healing power of **cool laser energy** with **NO BURNING**. The Luminex series contains fiber optic continuous wave probes delivering a homogenous beam and higher power dosage in a shorter period of time **cutting treatment times in half** or more.

Luminex Vet

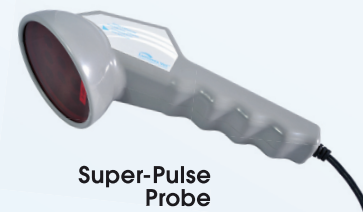


Features:

- Class 3b
- Choice of two laser probes:
 - 808nm 1000mW (1W) continuous wave
 - 904nm Super-Pulsed wide head with 8 diodes
- Convex routed tip on the continuous wave probe
- Extra-large 50cm Super-Pulsed treatment head
- Built-in protocols for most common conditions
- Ability to select dosage in joules with audible time notification of dosage delivery
- Touch pad volume and pulse frequency control
- Lithium-ion battery provides 8 hours of use and charges overnight
- Portable unit (4lbs) with carrying case and shoulder strap
- Acupuncture tip
- Two-year warranty



Continuous Wave Probe



Super-Pulse Probe

Aurora

Features:

- Class 4
- Four laser probes/modules:
 - 808nm 1000mW (1W) continuous wave small head probe
 - 808nm 5W continuous wave probe with large, 50 sq cm head
 - 904nm Super-Pulsed wide head with 9 diodes
 - 670nm 500mw Red probe for skin conditions and surface wounds
- Touch screen control unit with 20 built-in equine protocols
- 4-10 hour battery back-up for portability in the barn
- Patient record storage
- Two-year warranty



Laser Comparison Chart



		2400VS	LUMINEX VET	AURORA		
General	Laser Safety Class	3B	3B	4		
	Power Supply	Lead Acid Battery	Li-Ion Battery (2.1Ah)	120/240VAC 50/60Hz + 13Ah Li-Ion Battery		
	Fiber Optic	NO	YES	YES		
	User Protocol Settings	YES	YES	YES		
	Selectable Frequency	YES	YES	YES		
	Volume Settings	OFF/LOW/MED/HIGH	OFF/LOW/MED/HIGH	0 (OFF) - 16 (MAX) Volume Levels		
	Display	Character LCD	Color LCD	7" Capacitive Touch LCD		
Continuous Probe	Wavelength	808nm	808nm	670nm	808nm	
	Max Power	500mW	1W	500mW	1W	5W
	Increase/Decrease Power	no	yes	yes	yes	yes
	Flush to Skin or Convex Lens	flush	flush	flush	flush	convex
	Treatment Area with Probe Cap	1cm ²	1cm ²	1cm ²	1cm ²	50cm ²
		3mm	3mm	3mm	3mm	N/A
	Probe Output	0.5J/s (1 Joule in 2 Seconds)	1J/s (1 Joule in 1 Second)	0.5J/s (1 Joule in 2 Seconds)	1J/s (1 Joule in 1 Second)	0.1J/s (1 Joule in 10 Seconds)
Super Pulse Probe	Wavelength	904nm	904nm	904nm		
	# of Diodes	6	8	9		
	Peak Power	30W	90W	200W		
	Average Power	102mW	500mW	1.5W		
	Increase/Decrease Power					
	Max Frequency	3500Hz	4672Hz	10,000Hz		
	Treatment Area	2.356cm ²	50cm ²	50cm ²		
	Probe Output	40mJ/s (1 Joule in 25 Seconds)	10mJ/s (1 Joule in 100 Seconds)	30mJ/s (1 Joule in 33.3 Seconds)		



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Contact RSI Equine for Pricing and Rental Options