

Pain Management

January 2009

Physical Therapy Products presents an easy-to-use product matrix to help you choose the best pain management treatment method for your patients.

Topicals

Company	Ari-Med	Mettler Electronics Corp	Orthopedic Pharmaceuticals	Performance Health Inc	Sore No More	Topical BioMedics
	www.ari-med.com	www.mettler-electronics.com	www.orthogel.com	www.biofreeze.com	www.sorenomore.com	www.topricin.com
Name of Product	Flexall 454®	Polar Frost Pain Relieving Gel	ORTHO GEL	Biofreeze Pain Reliever	Sore No More!™	Topricin-Pain Relief and Healing Cream
Key Ingredients	Menthol 7%, Aloe Vera gel with eucalyptus, peppermint, thyme, and Vitamin E	Menthol, Eucalyptus, Glopulus leaf oil, and Aloe Barbadensis extract	Menthol, Camphor	3.5% Menthol	Menthol, Camphor, Capsaicin, Aloe Vera Extract	Topricin has 11 safe, unique, and natural homeopathic ingredients
Indications	Fast, long-lasting relief from minor arthritis pain, simple backache, bursitis, tendinitis, muscle strains and sprains, bruises, and cramps.	Provides cooling pain relief of minor aches and pains of muscles and joints associated with simple backache, arthritis, strains, bruises, and sprains.	Temporarily relieves minor pain associated with arthritis, muscle sprains, bruises and bursitis, simple backaches, cramps, and tendinitis.	Temporary relief from minor aches and pains of sore muscles and joints associated with arthritis, backache, strains, and sprains.	Temporary relief of pain associated with arthritis, body aches, workouts, sprains, and simple backaches	Safe for all ages. Optimal adjunct to all therapies in restoring function, mobility, and range of motion. Use on bedsores, shingles, eczema, arthritis, CTS, night leg cramps, restless leg syndrome, repetitive motion, and cumulative trauma injuries.
Contra-Indications	Keep away from eyes, mucous membranes, broken or irritated skin.	For external use only. Do not use on wounds or damaged skin.	For external use only. Avoid contact with eyes. If pregnant or breast feeding, ask a health professional before use. Do not use with other topical products. Do not use with any heating device. Do not apply to wounds or damaged skin.	Avoid contact with the eyes or mucous membranes. Do not apply to wounds or damaged skin. Do not use with other ointments, sprays, or liniments. Do not apply to irritated skin or if irritation develops. Do not bandage. Do not use with heating pad or device.	Do not use on open wounds. Avoid contact with eyes and mucous membranes, and damaged skin. For external use only.	No contra-indications. Improves health, vitality, and quality of life.
Available Sizes/Packaging Types	0-25 oz dispensers, 4 oz, 16 oz, 7 lb	17-oz pump bottle, 5-oz tube, 2.5-oz roll-on, 1 gallon	3-oz roll-on, 4-oz jar, 4-oz tube, 4-oz bottle, 6-oz continuous spray, 16-oz pump, 32-oz pump, gallon pump, 5-gram samples	Biofreeze Gel in 4-oz squeeze tube, 16-oz, 32-oz, 1-gallon-size pump bottles. Biofreeze Pain Relieving Roll-On in a 3-oz bottle. Biofreeze Pain Relieving Spray in 4-oz and 16-oz trigger spray bottles.	2-oz jar, 4-oz jar, 8-oz jar, 3-oz roll-on, and 8-oz pump bottle	Topricin comes in a 2-oz tube; 4-oz jar; 8-oz, 16-oz, and 32-oz pump bottles.
Differentiating Factors	Versatile enough to aid in treating the acute, subacute, and chronic stages of injury	Polar Frost is a cold gel that provides soothing relief for soft tissue injuries, stress injuries, muscle tension, inflammation, and stiffness.	Glucosamine, Boswellia serrata, Curcuminoids, MSM, E	With natural menthol for "cold therapy" relief.	A special blend of six natural plant extracts in combination with menthol, capsaicin, and witch hazel will get rid of pain the natural way with its unique heating and cooling ingredients.	Topricin is the "21st Century Answer to Healing."

Pain Management

TENS

Company	Care Rehab	Medi-Stim Inc	Mettler Electronics Corp	Multi Radiance Medical
	www.carerehab.com	www.medi-stim.com	www.mettlerelectronics.com	www.multiradiance.com
Product Name	CareTENS	Freedom TENS Stimulator	TENS 210, 210T, and 212	LaserStim
Weight	8 oz	5 oz	4 and 5 oz, respectively	0.5 lb
Frequency Range	2 to 150 Hz	1 to 150 Hz	2 to 150 Hz (TENS 210/210T) 1 to 160 Hz (TENS 212) 0 to 100 V (TENS 210/210T) 0 to 110 V (TENS 212)	5 to 350 Hz Auto Selected/ Adjusted
Output Voltage	Waveform: Asymmetrical, rectangular Biphasic with zero DC current.	0 to 40 volts, 80 mA	Continuous, Modulated, and Burst modes (TENS 210/210T and 212)	90V @ 500 ohms 300V @ 2000 ohms 650V @ 10000 ohms
Output Modes		Four treatment modes: burst, normal, modulated width (M1), and modulated width (M2).		One to five pulses per burst
Product Display Features	High-resolution display.	Larger dials, knobs, and lettering for easier handling and operation of unit; Push-button mode selector to choose from four treatment modes.	TENS 210/210T, simple, no display TENS 212, Digital, LCD display that shows all treatment parameters and patient compliance information	Intensity range and several user feedback options, carry case, manuals, protocol booklet, etc.
Standard Accessories	Electrodes, batteries, lead wires, protective case.	Pin-connection lead wires, reusable self-adhering electrodes, and more. Rechargeable batteries, snap connection lead wires.	Battery, electrode cables, one package of self-adhesive electrodes, carrying case, belt clip	Acupuncture probes, carts, armatures, etc.
Optional Accessories	None		Additional self-adhesive electrodes in various sizes	
Differentiating Factors	CareTENS is a dual-channel digital TENS device. It features nine preset programs and three adjustable programs that provide a variety of continuous, burst, and modulated options for effective patient treatment.	Compared to other analog TENS units, the Freedom TENS unit offers much larger dials, knobs, and labeling, making it much easier to handle and operate, especially for elderly, plus four effective treatment modes. Its strong metal belt clip outlasts other plastic ones that break easily. Very reliable and very affordable unit.	The TENS 212 is an affordable two-channel TENS unit that has Continuous, Modulated, and Burst modes. A digital display shows all treatment parameters while the unit is in use. Pulse frequency and width may be set independently. A compliance meter provides patient-use information in hours.	The new Laser-Stim accessory is the first of its kind, a hybrid probe that provides both light/laser therapy and electrical stimulation (TENS). The FDA approved Laser-Stim combination probe can provide simultaneous or independent light/laser and electrical stimulation (TENS) applications.

E-Stim

Company	Care Rehab	Dynatronics	Medi-Stim	Multi Radiance Medical	Mettler Electronics Corp
	www.carerehab.com	www.dynatronics.com	www.medi-stim.com	www.multiradiance.com	www.mettlerelectronics.com
Product Name	Care Stim	Dynatron Solaris 709	Combo-Stim NMS-30 Digital TENS/EMS Stimulator	LaserStim	Sys*Stim 294
Waveforms Delivered	Asymmetrical, Rectangular Biphasic with zero DC current.	Seven waveforms: IFC/Premod, Russian/Biphasic, Hi-Volt, Microcurrent, Direct Current	Symmetrical and Alternating Biphasic rectangular	Biphasic Square Wave	Interferential, Premodulated, Medium Frequency (Russian), Biphasic, High Volt, Microcurrent
Current Delivery	Constant current. In the continuous mode	With seven stim waveforms on the unit, it depends on the modality	TENS: Constant, Burst, Modulated Rate and Width; five EMS programs	27 mA/cm ² @ 500 ohms	Current delivery is through four channels using self-adhesive electrodes.
Frequency Range	2 to 100 Hz	IFC / Prmod - Available Range: 0 to 150 Hz Biphasic Stimulation: 50 to 400 µs pulse duration @ 1 to 200 Hz Russian Stimulation: 2,500 Hz sine wave amplitude modulated at 50 Hz High Volt - Pulse Rate: available Range is 1 to 200 Hz Microcurrent: available range between .1 and 200 Hz Direct Current: Pulse Duration is .1 to 500 mSec.	Selectable Pulse Frequency (Pulse ate): 1, 2, 3, 4, 5, 10, 12, 14, 16, 18, 20, 30, 35, 40, 45, 50, 60, 70, 80, 90, 110, 120, 130, 140, 150 Hz; Selectable Pulse Duration (Pulse Width): 50, 100, 150, 200, 250, 300, 350, 400 microseconds; Adjustable Intensity: 0 to 100mA, in steps of 5 mA	5 to 350 Hz Auto Selected/Adjusted	Interferential and Premodulated, 4000-Hz carrier, 1 to 250 Hz modulation Russian, 2500-Hz carrier, 50-pps Biphasic and High Volt, 1 to 120 pps Microcurrent, 0.5 to 500 pps
Timer Settings	Time duration of the treatment selectable: 15, 30, or 60 minutes or continuous.	Adjustable	Continuous, and 10, 20, 30, 45, 60, 90 minutes.	Manual	1 to 59 minutes
Differentiating Factors	Care Stim is a dual-channel digital muscle stimulation device. It comes with nine preset programs that provide a wide variety of work and rest times for effective patient treatment.	The multifunctional Dynatron Solaris 709 offers the most options in any one device, including seven-stim waveforms, ultrasound, and optional Light Therapy. Solaris is the industry's only ultrasound device offering 1-, 2-, and 3-MHz frequencies and the exclusive interferential Target feature. Its durable construction and portable size mean that Solaris can travel anywhere.	The Combo-Stim offers TENS and EMS in one device with common programs that are preset for easy set-up and use for pain management and muscle rehabilitation. Custom settings can be programmed and locked in for fast, easy recall. The Combo-Stim offers robust stimulation and premium features at a very affordable price.	The new Laser-Stim accessory is the first of its kind, a hybrid probe that provides both light/laser therapy and electrical stimulation. The FDA-approved Laser-Stim combination probe can provide simultaneous or independent light/laser and electrical stimulation applications for superior clinical applications and outcomes.	The Sys*Stim 294 offers six waveforms that offer the capability for pain relief or muscle stimulation. All four channels are independent and can be programmed to perform up to four different stimulation protocols on separate timers.

Pain Management

Ultrasound

Company	Dynatronics	Hill Laboratories	Mettler Electronics Corp	Company	Parker Laboratories Inc
	www.dynatronics.com	www.hilltherapy.com and www.hilllabs.com	www.mettlerelectronics.com		www.parkerlabs.com
Name of Product	Solaris 709 Multi-Stim, Ultrasound, (Light Option); Solaris 701 Ultrasound, (Light Option)	HF54 Hands Free Ultrasound	Sonicator 740 and 740x	Name of Product	Aquasonic 100 Ultrasound Transmission Gel
Power Requirements	100 to 240V~, 50/60 Hz	115V or 220V, 1.5 amps	100 to 240 VAC, 60Hz/50Hz	Indications	Diagnostic and therapeutic medical ultrasound. Recommended for all procedures where a viscous gel is required.
Frequencies	1 MHz, 2 MHz, and 3 MHz	1 Mhz	1 and 3 MHz	Available Sizes/ Packaging	60g Doppler® size tube, 12 per box; 0.25-liter dispenser, 12 per box; 1 liter with dispenser cap, six per box; 5-liter SONICPAC® with refillable dispenser, one per box, four per case.
Channels	D709 - five channels D701 - one channel	two channels IFC/ Premod	For our Sonicator Plus units, two or four	Features	Acoustically correct for the broad range of frequencies used; Completely aqueous, will not stain clothing or damage transducers.
Duty Cycles	10, 20, 50, and Continuous	50%	Continuous, 10, 20, and 50%	Differentiating Factors	Unique "can't be copied" formula is hypoallergenic, bacteriostatic, nonsensitizing, and nonirritating
Waveforms	D709 - seven waveforms: IFC/Premod, Russian/ Biphasic, Hi-Volt, Microcurrent, Direct Current	Amplitude Modulated	On our Sonicator Plus units: Interferential, Premodulated, Medium Frequency, Biphasic, Hi-Volt, Microcurrent, EMS, and Direct Current		
Standard Accessories	One Soundhead (size of your choice), Power Cord, Operator's Manual, Protocol Reference Manual, Ultrasound Gel, and more.	Rolling Cart with basket, Utility Tray, Swing Arm Assembly with Soundhead, Spray Bottle, 2 Muscle Stimulation Wires, and more.	One to three applicators, power cord, applicator cable		
Optional Accessories	Light Therapy and assorted light probes, various electrode sizes and types, Hard or Soft side Carrying cases, remote stop cable, and adapters.	A second hands free ultrasound and Horizon Infrared Therapy	Carrying case and battery		
Differentiating Factors	Solaris is the industry's only ultrasound device offering 1-, 2-, and 3-MHz frequencies. In addition, the multi-functional Dynatron Solaris 709 offers the most options in any one device, including 7-stim waveforms, ultrasound, and optional Light Therapy. Its durable construction and portable size mean that Solaris can travel anywhere.	The HF54 is the only ultrasound cleared by the FDA with Hands Free indications. Treating for less than 10 minutes and treating too large of an area are the two most common errors that reduce the effectiveness of an ultrasound treatment. The HF54 eliminates these errors.	The Sonicator 740 is a portable therapeutic ultrasound. A large back-lit liquid crystal display and large controls provide one-touch entry for treatment parameters. Dual-frequency 5-cm 1-MHz, 10-cm, and 3-MHz, 1-cm applicators are available. The 5-cm and 10-cm applicators have blue coupling-status indicators.		

Hot/Cold Therapy

Diathermy

Hot/Cold Therapy			Diathermy		
Company	Pro-Tec Athletics www.injurybegone.com	Mettler Electronics Corp www.mettlerelectronics.com	Company	Mettler Electronics Corp www.mettlerelectronics.com	International Medical Electronics LTD www.Magnatherm.com
Name of Product	Ice-Up Portable Ice Massager	ThermalSoft® Gel Hot and Cold Packs	Name of Product	Auto*Therm 390 and 391	Magnatherm Model SSP and Magnatherm Model 1000
Heat Therapy		X	Weight	15 lbs (390) and 60 lbs (391)	Model SSP 25 lbs. Model 1000 155 lbs.
Cold Therapy	X	X	Dimensions	7 in (H) x 14 in (W) x 16.5 in (D) (390) 37 in (H) x 19 in (W) x 19 in (D) (391)	Model SSP portable configuration 17" x 6" x 17", mobile configuration 34" x 18.5" x 8" model 1000 19" x 40" x 17"
Temperature Details		Pack is heated in the microwave for heat and chilled in the freezer for cold.	Frequencies	Carrier frequency - 27.12 MHz; Pulse Frequencies - 10 Hz, 20Hz, 50Hz, 100Hz, 400Hz	27.12 MHz
Indications	Quick deep tissue relief for ligament, tendon, and muscular injuries.	Heat provides relief of muscle and joint aches, pains and stiffness; relaxation of muscles and muscle spasms; relief of pain and stiffness associated with arthritis; and temporary increase in blood circulation. Cold therapy relieves pain, swelling, and inflammation.	Output Modes	Continuous and pulsed induction coil and capacitive pad	Pulsed throughout the therapy range.
Contra-Indications	N/A	Precaution for Cold Therapy: Do not apply to insensitive skin or in areas of poor circulation or nerve damage. Precautions for Heat Therapy: Do not apply to insensitive skin or in areas of poor circulation or nerve damage.	Pulse Duration	65 us, 100 us, 200 us, 300 us, and 400 us	95 microseconds
Product Specifications	Leakproof design keeps sports bag dry. Ergonomic, insulated Comfort Grip barrel for controlled ice massage. Unique Cap design easy to pop open with wet hands. Patented Ice Grippers allow full range of controlled massage pressure. Affordable, small and easy to carry, fits in sports bag or car glove box. Simple and effective: just fill, freeze, and carry for ice on the spot. Includes Ice-Up, Stick, and insulated Carry Cooler.	ThermalSoft Gel Hot and Cold Packs come in four sizes. Standard Gel Pack, (11" x 14") Half Size Gel Pack, (7.5" x 11") Cervical Gel Pack, (23" x 8" Contour) Extra Large Gel Pack, (11" x 21")	Standard Accessories	Auto*Therm 390 has two soft-rubber capacitive plates with wires attached, felt spacers and muslin bags. Auto*Therm 391 has all above plus inductive coil, cable for coil, arm, and cart.	Two independent induction heads. Test device.
			Optional Accessories	Strap for coil if cart and arm are not needed.	Each unit comes complete.
Differentiating Factors	The Ice-Up Portable Ice Massager stays frozen up to 12 hours so it can go anywhere! Benefits of direct, active ice massage include 1) Effective treatment in 5 to 7 minutes, 2) Quick, deep tissue relief for ligament, tendon, and muscular injuries, 3) Immediate ice massage increases treatment effectiveness, speeds recovery.	ThermalSoft Gel packs may be used for soothing hot and cold therapy. For cold, just place in the freezer and ThermalSoft Gel stays soft and pliable. Microwave the pack for heat. Large gel crystals allow the pack to softly mold to the body to deliver soothing heat or cold therapy.	Differentiating Factors	The Auto*Therm 391 has either continuous or pulsed modes. There are two different forms of application: the deep penetration of inductive coil or the capacitive soft-rubber plates that surround a joint with warmth. It has a sturdy cart with an arm that precisely positions the inductive drum on the patient.	Magnatherm pulses throughout the therapeutic range. Each head heats muscle preferentially over fat two and one half times, and is electrostatically shielded. Two independent induction heads allow for the treatment of two areas at one time, one area from two directions, or one area directly and remotely, simultaneously. These features combine to provide deeper heating and better results than any other unit. Magnatherm is UL listed and made in the United States for patient safety.