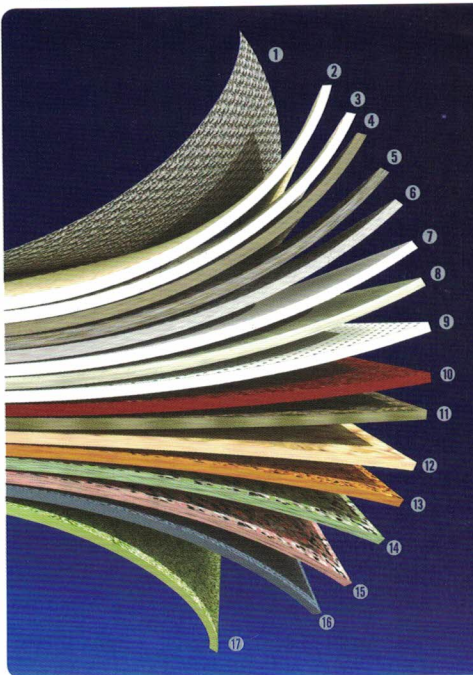


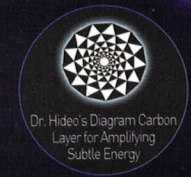
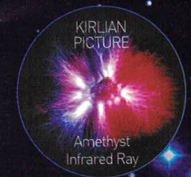


Unique Innovation in Bio Technology



THE BIOMAT®'S 17 LAYERS CONSIST OF:

- 1 Surface material: Silicon urethane with cotton
- 2 Waterproof layer
- 3 Amethyst layer for transferring natural infrared rays
- 4 Hyron cotton layer for thermal insulation
- 5 TOCA layer for natural negative ions
- 6 Nano Copper fabric layer
- 7 Quantum Energy layer (peach and grape seeds)
- 8 Copper fabric layer for electromagnetic interception
- 9 Carbon fiber layer for electromagnetic interception
- 10 Fiberglass layer
- 11 Thermal preservation layer
- 12 Silicon and Teflon reverse currency heating layer with EMF interception
- 13 Nonwoven fabric layer
- 14 Aluminum layer for reflection of infrared rays
- 15 Nonwoven fabric layer for heat preservation
- 16 Thermal protection layer
- 17 Bottom material: High quality cotton with brass pattern



BENEFITS OF THE BIOMAT®

1 Temporary relief of:

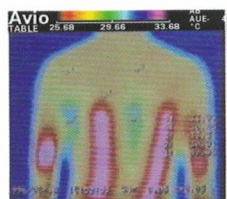
- Minor muscle pain
- Minor joint pain and stiffness
- Joint pain associated with arthritis
- Muscle spasms
- Minor sprains
- Minor strains
- Minor muscular back pain

2 Relaxation of muscles

3 Temporary increase of local circulation

WHAT IS THERMOTHERAPY?

Thermotherapy is the therapeutic application of any substance to the body that adds heat to the body resulting in increased tissue temperature.⁽¹⁾ Thermotherapy also increases blood flow which facilitates tissue healing by supplying protein, nutrients, and oxygen at the site of injury. Studies have shown that a 1°C increase in tissue temperature is associated with a 10% to 15% increase in local tissue metabolism.⁽²⁾ The increase in tissue metabolism assists in the healing process by removing the metabolic by-products of tissue damage and provides the environment for tissue repair.



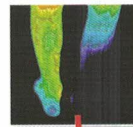
Heating Pad



Biomat

WHY USE FAR INFRARED?

The circulatory system is responsible for the delivery of oxygen-rich blood and the removal of wastes.⁽³⁾ Far infrared rays have been found to have a blood circulation enhancing effect in human skin and eventually induces an increase in temperature of the body tissues.⁽⁴⁾



assists in the proper folding of proteins and quality control.⁽⁶⁾ Improper folding of proteins and damaged proteins have been reported to be the cause of a large number of diseases.⁽⁹⁾

43.0	Protein activation
41.0	H.S.P
40.0	Bacteria and viruses are susceptible to heat
37.0	3,000 essential enzymes are activating
36.5	
35.5	Difficulty in autonomic nervous system
35.0	Immunity greatly decreased

When the body temperature is decreased by 1 degree

- 36% of immune functions decline!
- 12% of basic metabolism declines!
- 50% of enzymatic activities decline!

From Dr. Yoshimizu's clinical study report

INCREASE OF BODY TEMPERATURE

Studies have indicated that during thermotherapy, or hyperthermia, the body is exposed to higher temperatures which causes a significant increase in skin microcirculation, skin temperature and core temperature.⁽⁵⁾ Inducing an artificial fever can provide benefits to your immune system as a type of immune cell, or lymphocyte, called a CD8+ cytotoxic T-cell, helps destroy infected cells.⁽⁶⁾

HEAT SHOCK PROTEINS

Heat shock proteins (HSPs), or stress proteins, are present in all organisms and all cells of all organisms.⁽⁷⁾ Published studies have shown that exposures to environmental stress, such as heat shock, induces the body to produce HSPs that function as molecular chaperones. Molecular chaperones are a type of protein that

NEGATIVE IONS

Negative ions, or anions, are atoms that have a greater number of electrons (-) than protons (+), which result in a negative charge. They are abundant in natural environments such as forests, mountains, waterfalls and oceans. In a 2013 report on the effects on negative ions, studies were discussed about the positive effects of negative ions on physiological functions and human health.⁽¹⁰⁾

References

- (1,2) Nadler, Scott F., Kurt Weingand, and Roger J. Kruse. "The Physiologic Basis and Clinical Applications of Cryotherapy and Thermotherapy for the Pain Practitioner." *Pain Physician* 7.3 (2004): 395-99.
- (3) "Circulatory System (or Cardiovascular System)." *Circulatory System (or Cardiovascular System)*, 16 Oct. 2012. Web. <http://www.heart.org/HEARTORG/Affiliate/Circulatory-System-or-Cardiovascular-System_UCM_426951_Article.jsp>
- (4) Inoue, Shojo, and Morihiro Kabaya. "Biological Activities Caused by Far-infrared Radiation." *International Journal of Biometeorology* 33.3 (1989): 145-50.
- (5) Berliner MN, Maurer AI. "Effect of different methods of thermotherapy on skin microcirculation." *American Journal of Physical Medicine & Rehabilitation* 83.4 (2004): 292-297.
- (6) Mase, T. A., L. Zhong, C. Kilpatrick, E. Zytka, C.-T. Lee, M. Capitano, H. Minderman, and E. A. Repasky. "Differentiation of CD8 T Cells into Effector Cells Is Enhanced by Physiological Range Hyperthermia." *Journal of Leukocyte Biology* 90.5 (2011): 951-62.
- (7) Li Z, and Srivastava, P. 2004. "Heat-Shock Proteins." *Current Protocols in Immunology*, 58:11.A.11.1-11.A.11.6.
- (8) Adachi, Hiroaki, Masahisa Katsuno, Masahiro Waza, Makoto Minamiyama, Fumaki Tanaka, and Gen Sobue. "Heat Shock Proteins in Neurodegenerative Diseases: Pathogenic Roles and Therapeutic Implications." *International Journal of Hyperthermia* 25.8 (2009): 647-54.
- (9) Chauthuri, Tapan K, and Subhankar Paul. "Protein-misfolding Diseases and Chaperone-based Therapeutic Approaches." *FEBS Journal* 273.7 (2005): 1331-349.
- (10) Pino, Olimpia, and La Ragione, Francesco. "There's Something in the Air: Empirical Evidence for the Effects of Negative Air Ions (NAI) on Psychophysiological State and Performance." *Research in Psychology and Behavioral Sciences*. 1.4 (2013): 48-53.

CONTACT NUMBER

Blank area for contact information.