



*Treasures of Health*  
**HERB SHOP**

*Restore Your Body,  
Naturally*

## Far Infrared Heat

Far-Infrared or radiant heat (FIR) is part of the natural light spectrum of sunlight and a safe form of energy that heats objects by a process called direct light conversion. Radiant heat warms the objects around it without affecting the temperature of the surrounding free air. All warm-blooded animals that far infrared/radiant heat, a beneficial and essential form of energy that has the ability to penetrate, refract, radiate and reflect.

Infrared heat is divided into three wavelength categories: near, middle and far infrared, which are measured in microns or micrometers. The sun produces most of its energy output in the infrared segment of the spectrum. Our atmosphere allows infrared rays in the 7-14 micron range to safely reach the earth's surface. When warmed, the earth radiates rays within this band, with its peak output at 10 microns.

Near infrared or close heat (.076-1.5 microns), is extremely hot and used industrially for curing paint, setting glues and many other applications. Middle or intermediate infrared heat (1.5 ~ 5.6 microns), is a visible red light that is not meant to be used at close range. It is utilized in food warming lamps and also has some medicinal benefits. Far or long wave infrared heat (5.6~15 microns), is invisible to the naked eye and is used in many medical applications, from incubators to physical and dermatological therapies, and is the only heat known to lower blood pressure. Far infrared rays offer the most health benefits because they are capable of penetrating 2-3 inches into the human body, where they gently elevate the body's surface temperature, increase circulation, nourish damaged tissue and activate major bodily functions.

When FIR heat penetrates through the skin to the subcutaneous tissues, it transforms from light to heat energy, dilating blood capillaries and assisting the body in eliminating toxins and metabolic wastes through sweating. Activated by heat, the FIR energy is absorbed by human cells in a

process known as "resonance" or "resonant absorption". Cellular activities are instantly invigorated, resulting in improved metabolism. Far infrared lamps are used by doctors, chiropractors, physical and massage therapist and acupuncturist in the treatment of arthritis, joint pain, stiff muscles, injuries to tendons and ligaments and to promote faster bodily healing.

According to Dr. Tsu-Tsair Oliver Chi, tissues needing a boost in their output selectively absorb FIR rays.

Thermal therapy has been in existence for thousands of years, dating back to ancient civilizations such as the Romans, the Chinese, the Finns and the American Indians. Our bodies radiate far infrared energy through our skin at 3 to 50 microns and the healing generated by the "laying on of hands" can be partly attributed to the FIR energy of 8-14 microns emitted by the palms of ancient yogis and contemporary Reiki healers. Current research conducted in Taiwan has measured significant far infrared energy emitted from the hands of Chi Gong masters.

Far Infrared heat is beneficial to people and their pets in many ways:

- 1) FIR heat expands capillaries, stimulating increased blood flow, and aiding in regeneration, improved circulation and oxygenation. It is helpful in detox programs because it promotes the elimination of fats, chemicals, poisons, carcinogenic heavy metals and toxins from the blood. FIR energy aids in the elimination of lactic acid, free fatty acids, subcutaneous fat, excess sodium associated with hypertension, and uric acid. Activating sebaceous and sweat gland also assists the body in ridding itself of accumulated cosmetic material through the skin rather than by the kidneys.
- 2) Far infrared speeds cellular metabolic rates by stimulating the activity of mitochondria, and triggering enzyme activity, therefore promoting the killing of many pathogens: bacteria, viruses, fungi and parasites. FIR energy strengthens the immune system by stimulating increased production of white blood cells (leukocytes) by the bone marrow and killer T-cells by the thymus gland. It is proving to be a factor in strengthening the body's resistance to infectious diseases, increasing the production of lymphocytes and neutrophils, and reducing the frequency of colds and respiratory infections.

- 3) Far infrared heat promotes the rebuilding of injured tissues by having a positive effect on the fibroblasts (connective tissue cells necessary for repair) and it increases the growth of cells, DNA and protein synthesis necessary during tissue repair and regeneration. It is therefore excellent for healing burns, scar tissue and skin problems. Far infrared heat also promotes bone growth and is beneficial for the prevention of osteoporosis.
- 4) FIR energy relieves nervous tension and relaxes autoneuro muscles. It reduces soreness in nerve ending and muscle spasms by heating the muscle fibers. It improves the balance of blood pressure, blood sugar, and nutrients in the cells, resulting in increase muscle strength, vitality and mental stability. Natural wavelengths of far infrared light are also essential for regulating hormonal levels such as melatonin, the hormone derived from serotonin that plays a role in sleep, aging, and reproduction; cortisone, a naturally occurring steroid hormone that is used in the treatment of rheumatoid artheritis adrenal insufficiency certain allergies, and gout; and testosterone the most potent natural androgen.
- 5) Far Infrared heat strengthens the cardiovascular system by causing heart rate and cardiac output increases, and diastolic blood pressure decreases. NASA concluded in the 1980's, that far infrared stimulation of cardiovascular function is the ideal way to maintain cardiovascular conditioning in astronauts involved in long space flights.

In much the same way that plant need light for the photosynthesis process, animals need radiant energy to send electrochemical impulses to the pineal and pituitary glands to produce healthy hormones that are sent through the central nervous system to all the cells of the body. Far infrared and heat is thus essential to the functioning of our entire endocrine system and is not only safe, but also highly beneficial for optimal health.