

## Turn Up the Heat

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For thousands of years, the sauna or sweat lodge has been used to improve both physical and spiritual well being. Today, there are hundreds of scientific studies attesting to the health benefits of sauna therapy, also known as bio-toxic reduction therapy, hyperthermia therapy, or heat depuration.

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The infra-red sauna is a new innovation that offers several advantages over the conventional sauna. Most saunas employ a unit that heats the air through convection (air movement) and conduction (direct heat transfer). These saunas typically operate at between 180 °F and 220 °F (82 °C to 104 °C). They are akin to sitting in an oven. They heat only the skin until it becomes too uncomfortable to sit any longer. Water is often thrown on the elements to create steam. These saunas do not allow the person to sit in them long enough to receive the health benefits associated with the infra-red sauna.

Infra-red saunas produce heat using a ceramic heater, which does not turn red hot but instead produces invisible, infra-red heat. Traditional saunas and sweat lodges use hot stones, which also produce the same type of soft radiant heat. This is the same type of heat as produced by the sun and our bodies. Infra-red heat is very safe and not at all like the heat produced by microwaves.

In an infra-red sauna, only 20 percent of the energy is used to heat the air, leaving the rest of the energy to heat the body. The radiant heat can penetrate the skin to a depth of one to two inches, producing a gentle warming inside the body. The temperature inside an infra-red sauna is adjustable and averages a comfortable 100 °F to 150 °F (38 °C to 65 °C). This allows a person to sweat faster and to tolerate a longer period of time inside the sauna, allowing for the therapeutic effects to occur. Typical sessions last 30 to 45 minutes and can be repeated once or twice during the day to maximize the benefits.

Some therapeutic protocols call for spending up to five hours a day in a low temperature, infra-red sauna. This is only necessary for the most extremely chronic and toxic individuals. Most people will benefit from one 45-minute session per day. Infra-red saunas leave you feeling invigorated, not depleted like conventional saunas. Many people, including myself, choose to have their sauna treatment first thing in the morning before work.

### **Health Benefits of Infra-Red Sauna**

Heat therapy using the infra-red sauna can produce an impressive number of positive health benefits:

- Assists weight loss and increases metabolism: burns up to 600 calories in 30 minutes
- Improves circulation to deep and superficial tissues
- Promotes detoxification of the heavy metals and organic chemicals stored in fat cells
- Helps to boost the immune response to kill viruses and bacteria
- Pain relief
- Muscle relaxation
- Accelerates the breakdown of fat and cellulite
- Promotes skin tone, elasticity, pore cleansing, and healing of skin conditions such as acne, eczema, psoriasis and dermatitis
- Accelerates wound healing from injuries and surgeries and reduces scar formation
- Passive cardiovascular conditioning effect: enhances oxygen and nutrients to deep tissues
- Regulates blood pressure
- Useful in athletic conditioning to warm muscles before, and after, activity
- Reduces physical and emotional stress
- Reduces fatigue and stimulates energy
- Anti-cancer effect through hyperthermia effect, immune enhancement and elimination of carcinogenic chemicals

### **Detoxification**

The effect of detoxification is one of the most interesting and wide-ranging benefits of the infra-red sauna. The ability of hyperthermia therapy to release a range of toxins stored in body tissues has been documented in a number of medical studies over the last 20 years. Heat causes chemicals such as heavy metals, pesticides and fat-soluble chemicals to be released from the fat cells and

tissues into the lymph fluid. Since sweat is made from the lymph fluid, toxins in the lymph are expelled from the body in the sweat. This process bypasses the liver and kidneys, which are usually already overburdened in toxic and chronically ill individuals.

One study found that the sweat formed in conventional saunas is 95 to 97 percent water. In infra-red saunas, only 80–85 percent of the sweat is composed of water; the remaining 15 to 20 percent consists of cholesterol, fat-soluble toxins, toxic heavy metals, sulfuric acid, sodium, ammonia and uric acid.

Study after study has shown that infra-red sauna therapy, combined with nutritional supplements, consistently and dramatically eliminates a wide range of chemical compounds including pesticides, PCBs, heavy metals such as mercury, lead, cadmium and arsenic, and both prescription and non-prescription drugs. Sweat produced during exercise does not eliminate the same amount of toxins.

The detoxification benefits of the infra-red sauna can be applied to a wide number of conditions where toxicity plays a role, such as chronic fatigue, fibromyalgia, chemical sensitivities, auto-immune conditions, neurological diseases, allergies, and cancer.

### **Fibromyalgia and Chronic Fatigue**

For the fibromyalgia or chronic fatigue patient, a consistent program of infra-red sauna therapy will assist the problem of autonomic dysregulation, which is common to these conditions. The autonomic nervous system controls the unconscious functions of the body, including muscle tension, blood pressure, sweating, digestion, and balance. Symptoms of autonomic dysregulation are muscle pain, digestive problems, visual disturbances and dizziness. These symptoms are reduced, as regular sauna therapy induces normal autonomic functioning.

### **Physical Conditioning**

Infra-red sauna therapy has a beneficial effect on metabolism and cardiovascular conditioning. A session in the sauna doubles the flow of blood to all the tissues of the body and exercises the heart. This is comparable to a similar time of exercise, although no muscle conditioning will result. This is useful as an augmentation to a regular exercise routine and is a good substitute for those who can't exercise.

The infra-red sauna is a valuable tool in any weight-loss program. At EcoMed, we routinely use the sauna for its excellent calorie burning effects. We find that the sauna accelerates weight loss in a person who is already exercising and following a sensible and healthy alkaline diet. A half-hour session can burn up to 600 calories. Therefore, two sessions a day of 45 minutes each can burn up to

1800 calories, per day, which is equivalent to almost two hours of vigorous aerobic exercise.

There have been reports in marketing literature that hyperthermic therapy increases human growth hormone, but I have not seen any scientific studies verifying this fact.

### **Pain Reduction**

A major health benefit of infra-red sauna is in the area of reduction of pain in muscles and joints. Pain in muscles is alleviated by the reduction of muscle spasms and increased blood circulation to muscles suffering from ischemia (insufficient blood flow). Hyperthermia also helps to reduce pain by the acting on nerve endings as well as encouraging production of endorphins, which act as natural analgesics. As well, heat therapy is useful in helping to reduce inflammation and edema, resulting in a reduction of pain and acceleration of healing of injuries. Hyperthermia will also decrease joint stiffness and increase the flexibility of collagen tissues such as tendons, ligaments and joint capsules.

Infrared therapy has been successfully used to reduce pain from a variety of conditions including whiplash, soft tissue injuries, arthritis, sciatica, back pain, neuritis, bursitis, menstrual cramps, gout, migraines, and chronic muscle spasms.

### **Skin Care**

The sauna improves blood circulation to the skin and results in a deep pore cleansing. This results in an improved skin tone and elasticity. Regular users are said to have more youthful skin that “glows.” People with chronic skin conditions such as acne, psoriasis and eczema will benefit from regular sauna sessions. If the person is heat sensitive, the temperature of the sauna can be turned down to a level that the person can tolerate. Burn victims and people with scars can also benefit from the improved healing of the skin.

### **Stress Reduction**

Due to the many physiological effects of heat therapy, people feel less stressed after a sauna session. A sauna session relaxes muscles, circulates the blood, stimulates the heart, and releases endorphins, providing a feeling of invigoration. People report being able to sleep better after their sauna sessions.

The infra-red sauna has become an integral part of my naturopathic practice. I can personally testify to its excellent results in a wide range of conditions. As a preventive tool, I can recommend it to anyone wishing to eliminate toxins from their bodies. From a preventive health perspective, this may be one of the most important things you can do for yourself.

