

INFRARED SAUNA

HEAT UP AND BE HAPPY

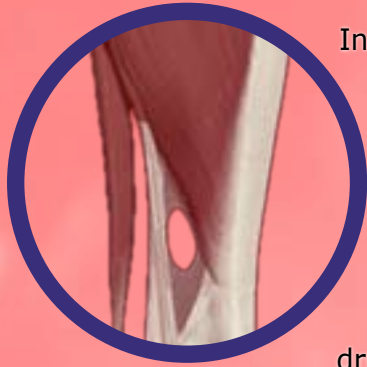


Infrared lamps have been used for many decades for the management of muscle and joint pain. New technology has now made infrared light available in the form of a sauna providing many other great health benefits. Enjoy these benefits without the excessive heat, steam, and claustrophobia of traditional steam saunas.

INFRARED THERAPY IN REHABILITATION

Infrared sauna therapy is an excellent medium for assisting recovery from injury, and in the management of chronic pain. Harmless, infrared rays penetrate approximately 4.5cm (1.5inches) providing a deep heat into the joints and muscles, not achievable through the use of conventional hot packs. This deep heat stimulates the circulation bringing oxygen and new nutrients into the area of healing, removing irritating waste products, and assisting in the resolution of chronic swelling. Pain relief is also achieved through direct stimulation of the free nerve endings that carry pain information.

Muscle spasm and tightness are reduced and soft tissue extensibility improved by infrared heating. Gentle stretching in the sauna while the muscles are warm will give an even greater effect. Relaxation of the soft tissues normalizes tension around the joints. The deep heat also has a direct effect on the joints themselves reducing joint stiffness and increasing mobility. Again, gentle joint mobility exercises may be performed while warm, assisting recovery of normal movement and reduction of pain.

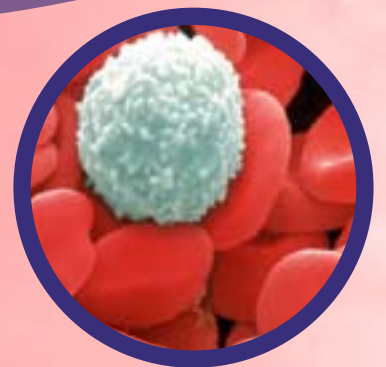


Infrared sauna may be used in the recovery of joint/ligament sprains and muscle strains after the acute inflammatory period has passed (48-72hrs). Significant relief can be achieved for those with chronic pain associated with conditions such as osteoarthritis, rheumatoid arthritis and fibromyalgia, particularly if used on a regular basis. Control of chronic pain with infrared therapy, which provides many other additional health benefits, is far preferable to excessive drug use which may incur side effects with prolonged use.

OTHER HEALTH BENEFITS

Stimulates the Immune System

Exposure to infrared heat induces a response from the body as if an infection were present. Infrared heat has been shown to inhibit fungi, yeasts, and bacteria, and increase the number of leucocytes (white blood cells that fight infection) in the blood (Sircus).



Improves Cardiovascular Function

It has been reported that regular sauna use may have a similar cardiovascular training effect to regular exercise. During an infrared sauna session blood flow increases, heart rate increases and cardiac output increases without any increase in blood pressure. Regular sauna sessions have been shown to lower blood pressure in those with hypertension (Winterfield et al 1993) and has been shown to improve the function of the left ventricle that pumps the blood out around the body (Tei et al 1996). Infrared sauna therapy is used as a part of cardiac rehabilitation in Japan, being well tolerated by patients with chronic heart failure.

Weight Loss

Weight loss through regular infrared sauna sessions is achieved by three main mechanisms:

1. Burns Calories

As you are relaxing in the gentle warmth of an infrared sauna, your body is working hard to produce sweat. "While the weight of the water loss [from sweating] can be regained by re-hydration with water, the calories consumed will not be." (Journal of the American Medical Association 1981)

A single sauna session will burn approximately 600-800 calories – more calories than a 30 minute run and 4 times as many as a 30 minute walk.

2. Stimulates the Metabolic rate

Infrared therapy stimulates the metabolic rate not only during the session but for hours after. This means that food you eat will be metabolized more quickly with less caloric uptake.

3. Hormonal Effects

The final mechanism is through an increased release of Human Growth Hormone which assists in the breakdown of fat stores (lipolysis) and maintenance or building of muscle tissue, depending on the extent of your exercise programme. Research has shown a 2-5 fold increase in the amount of Human Growth Hormone released in response to sauna bathing (Leppaluoto et al 1987).

Detoxification

Every day we are exposed to toxins from the environment, in our workplaces (eg industrial workers, hairdressers, dry cleaners), and in our food. The deep penetrating heat of infrared therapy creates release of toxins, via the circulation, through the skin. Heavy metals such as lead, mercury, zinc, nickel and cadmium are expelled as well as alcohol, nicotine, sodium, sulphuric acid, ammonia, uric acid, and even cholesterol. Detoxifying through the skin reduces the load on your kidneys and liver (Sircus).

Improves Skin Health

After even a single sauna session your skin will feel remarkably fresher and softer. Sweating will clear the pores of environmental toxins, and from build up from cosmetics and personal hygiene products. Regular use will greatly improve skin condition and may benefit those with chronic skin ulcers, acne and some forms of psoriasis. Benefits are provided not only by the cleansing effect of sweating but also by the increased circulation delivering more oxygen and nutrients to the skin.

Reduces Stress & Fatigue

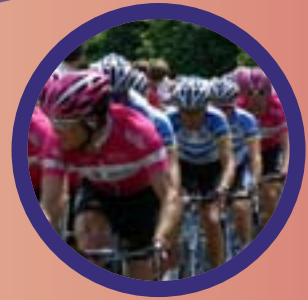
Increases in circulation, reduction of muscle tension and relaxing in-sauna music combine to provide a deep relaxation but not fatigue as is often the case after a traditional steam sauna. In fact, after an infrared sauna and a cleansing shower the overriding feeling is one of refreshment. Even chronic fatigue sufferers report increased energy levels during and after infrared sauna therapy (Zane et al 1992).

Number of calories an average 68kg person burns up in 30 minutes of exercise.

SPORT	CALORIES
Rowing (peak effort)	600
Marathon running	590
Swimming freestyle	300
Jogging	300
Tennis (fast game)	265
Cycling (16kph)	225
Walking (5.6kph)	150
Infrared Sauna Session	600-800

SPORTS APPLICATIONS

Athletes can use sauna as a warm up session before, or warm down/recovery session after exercise, or to assist in recovery from injury. An athlete who is unable to exercise due to injury can also use regular infrared sauna sessions to burn calories and minimize loss of cardiovascular fitness. Stretching in or after the sauna will improve flexibility and reduce injury risk.



SAFETY

Far infrared rays are a harmless, invisible part of the light spectrum.

⚠ Contraindicated Medical Conditions: People with certain conditions however should avoid infrared sauna therapy due to adverse responses to increases in body temperature or circulation. Avoid infrared therapy if you have the following conditions: Adrenal suppression or uncontrolled thyroid dysfunction, systemic lupus erythematosus, haemophilia (or those predisposed to haemorrhage), acute thrombosis (blood clots), acute infections/fever, acute injury (within 48-72hrs), unstable cardiac conditions. Chronic cardiac conditions are not a contraindication but medical clearance should be obtained before trialing infrared therapy. Any other medical conditions you are unsure about, and if you are on prescription medication, just check with your doctor first.

⚠ Pregnancy & Menstruation: Due to the deep heating effects of infrared sauna it is not recommended that you use an infrared sauna while pregnant. Infrared heat to the lower back region while menstruating may increase menstrual flow for a short period. You may choose to avoid sauna during this period or simply be prepared for the short term increase in flow.

⚠ Surgical Implants: Metal implants such as joint replacements, pins, screws or any other surgical implants are not heated by infrared therapy. Practising gentle mobility exercises in the warm sauna can be an excellent way to recover movement after joint replacements. It is still advisable just to clear this with your surgeon before proceeding. Silicone implants may be warmed by infrared rays but do not usually melt until reaching temperatures over 200degrees so there should be no problems. Again it is still advisable to check with your surgeon and/or the manufacturer first.

References

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