

Infrared Sauna: Need to Know



Dr. Oz explains to Oprah the benefits of Infrared Sauna!

The next life extension tool that Dr. Oz wheels onto Oprah's stage can help you burn 700 calories...without lifting a finger.

Dr. Oz says his in-laws introduced him to the infrared sauna, which is slightly different than a normal sauna. "It makes the same rays that come from the sun and filters out the UV radiation, so it only gives you the infrared radiation," he says. "That radiation that's infrared goes a little bit into your skin so, without heating you up and the external environment too much, it heats the body up."

After a few minutes in the sauna, Oprah says she's starting to feel the heat. Dr. Oz says the high temperature helps lower blood pressure and increase blood circulation. "It gets your heart to beat faster, and it burns calories," Dr. Oz says. "It raises your metabolism a little bit, and also when you sweat, you sweat out toxins through the skin."

Passive Cardiovascular Conditioning Effect

Infrared Sauna Therapy makes it possible for people in wheelchairs, or those who have a disability that affect their ability to exercise to achieve a cardiovascular training effect. Regular use of a sauna may impact a similar stress on the cardiovascular system, and its regular use may be as effective, as a means of cardiovascular conditioning and burning of calories, as regular exercise." - Journal of the American Medical Association 8/7/81.

Due to the deep penetration of the infrared rays generated by the Far Infrared Sauna, there is a heating effect deep in the muscular tissues and the internal organs. The body responds to this deep-heating effect via an hypothalamic-induced increase in both heart volume and rate. This beneficial heart stress leads to a sought-after cardiovascular training and conditioning effect. Medical researches confirm the use of a sauna provides cardiovascular conditioning as the body works to cool itself and involves substantial increases in heart rate, cardiac output and metabolic rate.

Weight Loss

Fat becomes water-soluble at a temperature of 100 F° before it begins to dissolve and enter the bloodstream to be removed from the body. In a FIR Sauna fat is also removed through sweat and cellulite. Weight loss is one of the benefits of using a FIR sauna each day for only 20-40 minutes. A single sauna session will burn 200-500 calories, as many as rowing a boat for 30 minutes or running several miles. Many people who have attempted weight loss through dieting and have not been successful will be pleased with their results from using a FIR sauna. Often the inability to lose weight is associated with chemical toxicity. As these toxins are removed from the body while using the FIR sauna, weight loss naturally follows. ***FIR saunas are the ONLY natural, healthy way to burn calories without exercising.***

Use of a FIR sauna has a ***cumulative effect*** on the body, meaning that using it daily magnifies its benefits. The first time you use the FIR sauna will be a pleasant experience. However, after several days and then weeks, detoxification, weight loss, immune building and other benefits will increase dramatically. One must experience this cumulative effect to understand it completely.

Burns up to 900 & more calories in just one 30-minute Infrared Sauna Therapy session. Here are how many calories a 150-pound person normally burns up in 30 minutes of exercise:

SPORT : CALORIES

- - Rowing (peak effort) : 600
 - Swimming (crawl stroke) : 300
 - Jogging : 300
 - Tennis (fast game) : 265
 - Chopping Wood : 265
 - Cycling (10mph) : 225
 - Golfing (without a cart) : 150
 - Walking (3.5mph) : 150
 - Bowling : 120
 - Vigorous Racquet Ball : 510
 - Marathon Running 593

Musculoskeletal Cases - success reported with infrared treatments

- TMJ Arthritis · Muscle Spasms - reduced or eliminated
- Traumatic Arthritis
- Low Back Pain - relieved
- Accl-decel Injury Sequelae
- Adhesions - lengthened or more easily broken; they are common in competitive athletes, trauma and repetitive stress syndromes
- Disc-protrusion Related Neuralgia
- Brain Contusion - accelerated healing
- Tight Shoulders - relaxed
- Compression Fracture - Example: pain stopped for 3 days with only a single treatment
- Spinal Cord Shock - post traumatic shock reversed
- Muscle Tension - relaxed

- Post-exercise Muscle Pain - vital to competitive athletes
- Arthritis: Gouty, Rheumatoid, DJD - each substantially relieved or improved
- Shoulder Pain - relieved or eliminated

1. Infrared Sauna Therapy increases the extensibility of collagen tissues.

- Tissues heated to 45°C and then stretched exhibit a non-elastic residual elongation of about 0.5 ~0.9% that persists after the stretch is removed. It does not occur in these same tissues when stretched at normal tissue temperatures. Thus 20 stretching sessions can produce around 10 ~ 18% increase in length in tissues heated and stretched.
- This effect would be especially valuable in working with ligaments, joint capsules, tendons, fasciae, and synovium that have become scarred, thickened or contracted.
- Such stretching at 45°C caused much less weakening in stretched tissues for a given elongation than a similar elongation produced at normal tissue temperatures.
- The cited experiments clearly show that low-impact stretching can produce a significant residual elongation when heat is applied together with stretching or range-of-motion exercises, which is also safer than stretching tissues at normal tissue temperatures.
- This safer stretching effect is crucial in properly training competitive athletes so as to minimize their "down" time from injuries.

2. Infrared Sauna Therapy decreases joint stiffness directly.

- There was a 20% decrease in stiffness at 45°C as compared with 33°C in rheumatoid finger joints, which correlated perfectly to both subjective and objective observation of stiffness.
- Any stiffened joint and thickened connective tissues should respond in a similar fashion.

3. Infrared Sauna Therapy relieves muscle spasms.

- Muscle spasms have long been observed to be reduced through the use of heat, be they secondary to underlying skeletal, joint, or neuro-pathological conditions.
- This result is possibly produced by the combined effect of heat on both primary and secondary afferent from spindle cells and from its effects on Golgi tendon organs. The effects produced by each of these mechanisms demonstrated their peak effect within the therapeutic temperature range obtainable with radiant heat

4. Infrared Sauna Therapy produces pain relief.

- Pain may be relieved via the reduction of attendant or secondary muscle spasms. Pain is also at times related to ischemia due to tension or spasm, which can be improved by the hyperemia that heat-induced vasodilatation produces. This then breaks the feedback loop, in which the ischemia leads to further spasm and then more pain.
- Heat has been shown to reduce pain sensation by direct action on both free-nerve endings in tissues and on peripheral nerves. In one dental study, repeated heat applications eventually led to abolishment of the whole nerve response responsible for pain arising from dental pulp.

Heat may lead to both increased endorphin production and a shutting down of the so-called "spinal gate" of Melzack and Wall, each of which can reduce pain.

5. Infrared Sauna Therapy increases blood flow.

- Heating of one area of the body produces reflex-modulated vasodilatation in distant-body areas, even in the absence of a change in core body temperature; i.e. heat one extremity and the contralateral extremity also dilates; heat a forearm and both lower extremities dilate; heat the front of the trunk and the hand dilates.
- Heating of muscles produces an increased blood flow level similar to that seen during an exercise.
- Temperature elevation produces an increase in blood flow and dilation directly in capillaries, arterioles, and venuies, probably through direct action on their smooth muscles. The release of bradykinin, released as a consequence of sweat-gland activity, also produces increased blood flow and vasodilatation.
- Whole-body hyperthermia, with a consequent core temperature elevation, further induces vasodilatation via an hypothalamic-induced decrease in sympathetic tone on the arteriovenous anastomoses. Vasodilatation is also produced by axonal reflexes and by reflexes that change vasomotor balance.

6. Infrared Sauna Therapy assists in resolution of inflammatory infiltrates, edema and exudates.

- The increased peripheral circulation provides the transportation needed to help evacuate the edema, which can help stop inflammation, decrease pain and help speed healing.

Researchers reported over 90% success in a summary of Chinese studies that assessed the effect of infrared therapy on:

- Soft tissue injury
- Lumbar strain
- Periarthritis of the shoulder
- Sciatica
- Pain during Menstruation
- Neurodermatitis
- Eczema with infection
- Post-surgical infections
- Diarrhea
- Cholecystitis
- Neurasthenia
- Pelvic infection
- Pediatric Pneumonia
- Tineas
- Frostbite with inflammation
- Facial paralysis (Bell's Palsy)

Japanese researchers, as reported in the book *Infrared Therapy* by Dr. Yamajaki, have produced the following provocative results.

- Burns: relieves pain and decreases healing time, with less scarring
- High Blood Pressure: safe in 40 ~ 50°C range and regular use helps to lower it
- Low Blood Pressure: sauna trains body to raise it
- Brain Damage: accelerated repair in brain contusions
- Short-term memory improved
- Cancer of the tongue reversed
- Toxic Electromagnetic Fields: effects neutralized
- Cerebral Hemorrhages: recovery is both sped up and significantly enhanced
- Auto Accident: related soft tissue injury - daily sessions were used until best healing was attained; then Infrared systems were used to deal with permanent residuals. The pain control effect on the chronic residuals from such injuries lasted three days before another treatment was necessary.
- Arthritis, acute and chronic: was greatly relieved
- Gouty Arthritis: relieved
- Rheumatoid Arthritis: relieved
- Menopause Symptoms: relieved chills, nervousness, depression, dizziness, head & stomach aches
- Weight Loss: first, through sweating and the energy use needed to produce the sweat and second, through direct excretion of fat

Blood Circulation - the following ailments may be associated to poor circulation and, thus, may respond well to the increased peripheral dilation associated with Infrared application:

- Arthritis
- Sciatica
- Backaches
- Hemorrhoids
- Nervous Tension
- Diabetes
- Children's Over-tired Muscles
- Varicose Veins
- Neuritis
- Bursitis
- Rheumatism
- Strained Muscles
- Fatigue
- Stretch Marks
- Menstrual Cramps
- Upset Stomachs
- Leg and Decubitus Ulcers: failed to heal using conventional approaches
- Post-Operative Edema: treatment with infrared has been so successful that hospital stays were reported to have been reduced by 25%

Coronary Artery Disease, Arteriosclerosis and Hypertension

Finnish researchers, talking about the regular use of conventional saunas state that there are abundant evidences to suggest that blood vessels of regular sauna-goers remain elastic and pliable longer due to the regular dilation and contraction of blood vessels induced by sauna use. German medical researchers reported in "Dermatol Monatsschr" in 1989 that a single whole-body session of infrared-induced hyperthermia lasting over one hour had only beneficial effects on subjects with stage I-II essential hypertension. Each subject experienced a rise in core body temperature to a maximum level of 38.5°C (101.3°F). All of the subjects in one experiment had significant decrease in arterial, venous and mean blood pressure that lasted for at least 24 hours and was linked, according to the researchers, to a persistent peripheral dilation effect. An improvement in plasma viscosity was also noted. Another group of similar hypertension patients was also studied under the same conditions of infrared-induced hyperthermia, with an eye toward more carefully evaluating the circulatory system effects induced by this type of whole-body heating. During each infrared session, there was a significant decrease of blood pressure, cardiac ejection resistance, and total peripheral resistance in every subject. There was also a significant increase during each session of the subjects' heart rates, stroke volumes, cardiac outputs and ejection fractions. The researchers cite these last three effects as evidences that the stimulation of the heart during infrared-induced hyperthermia is well compensated, while the prior list of effects clearly show the microcirculatory changes that lead to the desired result of a lowering of blood pressure.

Problems often accompanying Aging, that have been reported to have been alleviated or reduced by Infrared Therapy:

- Menopause
- Cold hands and feet: A physical therapist found 20~50% improvement was maintained
- High Blood Pressure: Example - Case of a diabetic with a systolic decrease from 180 to 125 and a concurrent 10 lbs. weight loss after infrared use
- Rheumatoid Arthritis: 7 out of 7 cases successfully resolved in one clinical trial
- Radiation Sickness: relieves signs and symptoms
- Cancer Pain: relieved pain in later stages of cancer extremely well
- Sequelae of Strokes: Example - Hemiparesis relieved over time
- Benign Prostatic Hypertrophy: reduced
- Duodenal Ulcers: eliminated
- Pain: which prevented sleep or limited useable sleeping positions were relieved
- Compression Fracture Pain: Example - pain gone for 3 days after each treatment in steoporotic compression fractures
- Hemorrhoids: reduced & Cystitis: gone
- Cirrhoisis of Liver: reversed
- Gastritis: relieved
- Hepatitis: gone
- Asthma & Bronchitis: cleared up (like moving to Arizona's dry air)
- Chron's Disease: gone
- Post Surgical Adhesions: reduced
- Leg ulcers: healed when previously static and resistant to other care
- Keloids: significantly softened and, in some cases, completely gone

Ear, Nose and Throat conditions relieved with Infrared treatments:

- Chronic middle-ear inflammation or infection
- Sore throats
- Tinnitus: chronic severe case cleared with 10 Infrared treatments
- Nose bleeding

Skin conditions benefited by Infrared treatments

- Nettle rash
- Clogged pores are unplugged of cosmetics creating a skin texture and tone of unexcelled quality. Mikkel Aaland's book *Sweat* (Capra Press, 1978) quotes a Finnish doctor to the effect that: "The best dressed foreigner can come into a doctor's office, and when his skin is examined, it is found to be rough as bark. On the other hand, as a result of the sauna, the skin of any Finnish worker is supple and healthy"
- Poor skin tone is restored to a more youthful level
- Scars and pain from burns or wounds are decreased in severity and extent. Infrared therapy is used routinely in burn units throughout Asia
- Lacerations heal quicker and with less pain and scarring
- Acne: Three or four infrared treatments may open pores that have not been functioning in years, forcing out clogging cosmetics and loosening dead outer skin. The sauna is thus a boon to teenage skin, clearing acne and blackheads
- Body odor: by improving the function of the skin, the infrared treatments may eliminate the cause of offensive body odor. It definitely reduces body odor induced by occupational exposure to odorous chemicals
- Eczema and Psoriasis: reported to have responded extremely well to infrared treatments
- Sunburn: according to the 9th edition of Clayton's *Electrotherapy*, "infrared is the only antidote to excessive ultraviolet radiation."
- Keloids forms at a reduced rate in those prone to their formation with infrared treatments and may be softened by use of infrared systems if they have form,

Beauty

- Excellent for increasing blood circulation to the skin, which is essential for beautiful, youthful, glowing skin.
- A new "inner glow" as the skin is free of accumulated dirt and dry skin cells, due to deep cleansing of impurities.
- Improves the conditions of acne, eczema, psoriasis, burns and any skin lesions and cuts.
- Open wounds heal quicker with reduced scarring.
- Removes roughness, leaving skin baby smooth and soft again.
- Firms and improves skin tone and elasticity

Scars on Skin

Scars fully formed, even keloids, may be gradually softened. Burns and other wounds or incisions may heal with significantly reduced scarring.

Cellulite

- Cellulite is a gel-like substance made up of fat, water and wastes, which are trapped in pockets below the skin. An Infrared Thermal System can assist this condition, as profuse sweating helps clear this form of unwanted debris from the body.
- European beauty specialists confirm that a sauna will greatly speed any anti-cellulite program.
- Due to at least twice the depth of heat penetration into cellulite combined with up to 10 times the level of heating in these tissues, an Infra Therapist System can be significantly more effective than any conventional sauna.

Flexibility:

A Far-Infrared Sauna is perfect as a "heat therapy room" for athletes looking for a pre-workout warm-up to warm up muscles and increase flexibility, helping to prevent injury. It's also ideal for pre-warm-up for physical therapy and massage therapy, or for a relaxing, wind-down at the end of a stress-filled day.

Relieves pain and Stiffness:

The deep heat of the far infrared sauna helps peripheral blood vessels dilate, bringing relief and healing to muscle and soft tissue injuries. Increased blood circulation carries off metabolic waste products and delivers oxygen-rich blood to oxygen-depleted muscle, so they recover faster. Muscles relax most readily when tissues are warm, for greater flexibility and range of motion.

Improves the Immune System:

Sauna's deep heat raises your body temperature, inducing an artificial fever. As it works to combat the "fever," the body's immune system is strengthened. Combined with the elimination of toxins and wastes produced by the intense sweating, the overall health and resistance to disease is increased.

Increases Blood Circulation and Strengthens Cardiovascular System:

While the moisture on the surface of the skin evaporates and thus cools the body, a number of other changes occur in the body to release the heat as quickly as possible. The heart beats harder and faster, pumping more blood through the dilated blood vessels, thus achieving the conditioning benefits of continuous exercise.

As the body increases sweat production to cool itself, the heart works harder pumping blood at a greater rate to boost circulation, supplying the conditioning benefits of continuous exercise. Heart rate, cardiac output and metabolic rate increase, while diastolic blood pressure drops, for improved overall cardiovascular fitness.

Removes Toxins:

Increased blood circulation stimulates the sweat glands, releasing built-up toxins and waste. Daily sweating can help detoxify the body as it rids itself of an accumulation of potentially carcinogenic heavy metals (lead, mercury, nickel, cadmium) as well as alcohol, nicotine, sodium, sulfuric acid and cholesterol.

Reduces Stress and Fatigue:

Perhaps the most immediate relief this far infrared sauna offers is simple relaxation, as it melts away the stresses and tensions of urban life. Infrared sauna gives an overall massaging effect, soothing jangled nerves and knotted muscles.

Improves Skin Condition:

The profuse sweating achieved after just a few minutes in far infrared sauna carries off deeply imbedded impurities and dead skin cells, leaving the skin glowing and immaculately clean. Increased circulation draws the skin's own natural nutrients to the surface. It improves tone, elasticity, texture and fresh color of the skin. Increased blood circulation has also been shown to relieve acne, eczema, psoriasis, burns, lesions and cuts. In addition, open wounds may heal more quickly, reducing scarring.

- In a **Far Infrared Sauna**, the body gets well conditioned and animated to have good absorption of calcium.
- Detoxification of narcotic drugs and hormone disrupting chemicals (dioxin PCB, formaldehyde, agricultural chemicals, food additives, etc.) melted in the body fat and internal organs.
- **Far Infrared Therapy** is effective for treating sprains, muscle spasms and joint stiffness; relieves aches and pains. Infrared sauna relieves soreness, swelling and lactic acid from exercise! The muscles and tendons get soft, removing or decreasing such in the muscles as amino-acid, fatigue stuff, harmful old wastes, and bringing relief from congestion and hyperthermia.
- Heat Shock Protein (HSP70) to protect the body from various kind of stress is induced and can strengthen the muscle.
- **Far Infrared Therapy** strengthens the cardiovascular system with deep Far Infrared penetration (up to 1.5").
- **Far Infrared Therapy** detoxifies heavy metals, hydrocarbon residues, alcohol, nicotine, sodium and cholesterol.
- **Far infrared saunas** improve your immune system by sweating at a lower more comfortable temperature than a conventional hot sauna as it enhances circulation and oxygenate the tissues. It also opens the nasal passages and assist the sinuses to drain.
- **Far Infrared Saunas** increase overall health and resistance to disease as heating of the tissues enhances metabolic processes. Increases the immune power The leukocyte, macrophage, NK cells and T cells are activated (the immune power is strengthened over 200 times by raising the body core temperature up to 3.5 degrees C). Greater cellular energy production facilitates healing. Viruses, tumors and toxin-laden cells are weaker than normal cells as they tolerate heat poorly. Raising the body temperature causes infections to heal more quickly. Hyperthermia or fever therapy help combat infections and even cancer. Our bodies develop fever when ill to enhance metabolism and help kill germs.
- **Far Infrared Sauna Therapy** sharpens senses and relieves stress, leaving you feeling refreshed and rejuvenated.
- Improvement and harmonization of autonomic nerves, balance of sympathetic nerves and parasympathetic nerves.

- **Far Infrared Sauna Therapy** improves skin within a few minutes. Helps scars and burns. Acne, psoriasis and eczema conditions will also improve. Increased blood circulation and deep cleansing of impurities improves skin tone and elasticity. Accelerates healing and reduces scars, even burns!
- **Far Infrared Sauna** Therapy stimulates endorphins of the brain and kills organisms like bacteria and parasites.
- SOD (super oxide diastase) and scavenger is promoted through the entire body.
- **Far Infrared Sauna** energy penetrates deeply into the body producing a warming, relaxing and detoxifying effect. Preheating is unnecessary which saves electricity.
- Repeated use of **Far-Infrared Saunas** slowly restores skin elimination as toxic chemicals and metals can be removed faster than with any other method. It is a daily habit that pays many dividends. Steam baths, sweat lodges, vigorous exercise and hot tubs are more extreme and less effective and the intense heat is difficult for many to tolerate, especially when ill.

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