

HEALTH BENEFITS AND RISKS ASSOCIATED WITH USE OF STEAM ROOMS AND SAUNAS, Doug Linz MD, Medical Director, TriHealth Pavilion

The TriHealth Fitness & Health Pavilion staff and I are providing this information to you to help you enjoy our facilities and make good decisions about using our saunas and steam rooms.

A number of varieties of steam rooms, spas and dry saunas have been used around the world for centuries, and have been said to convey a myriad of health and wellness benefits. Although research doesn't answer all our questions, a review of research studies on the health benefits of steam rooms and saunas reveals limited proof of health benefits beyond promoting relaxation and providing a sense of well-being^{1,2}.

Both the potential health benefits and health risks of both wet and dry heat exposure can be predicted by the effects of heat on the body. In medical jargon, the effects of saunas and steam rooms fall into several categories: Vasodilatation, Analgesia, Antispasmodic, Diaphoretic, Sedative, & with steam, Expectorant.

1- Vasodilatation -

Benefits: Both steam rooms and dry saunas cause the blood vessels in the skin to dilate, in part accounting for the warm glow appearance afterwards. The blood flow out of the heart increases by 2 or more times after a 10 to 15 minute steam room or sauna exposure.

Risks: However, the blood flow to the internal organs actually decreases, because so much blood is being directed to the skin instead. This can be a problem for folks with coronary heart disease, for example, if they use steam rooms or saunas believing it will be good for their "circulation".

People with hard-to-control hypertension (high blood pressure) may experience worsening blood pressure in response to heat exposure. In addition, many blood pressure medications interfere with the normal response of the body to heat exposure.

2- Analgesia –

Benefits: Heat has long been recognized as beneficial for folks with fibromyalgia, arthritis and other painful conditions.

Risks: If heat exposure is extreme, excessively prolonged, or if the individual has underlying irritation of the skin, heat can cause the equivalent of a sunburn, or thermal burn. In addition, steam exposure may be a concern if you have had recent surgery (particularly if sutures are still in place) or if you have an open or infected wound.

3- Antispasmodic –

Benefits: Heat tends to cause relaxation of the muscles and many individuals note improved recovery of muscle soreness and decreased problems with delayed muscle soreness when they use a sauna or steam room after exercise.

4- Diaphoresis (sweating) –

Benefits: The average person will sweat about a pint during a 15 minute session in a sauna, depending on the person's acclimatization to heat exposure.

This has theoretical benefits for cleansing skin pores and some people believe sweating helps clear toxins from the body. This is not well proven and in many instances, is simply not true. In general, people with documented toxicant accumulation in their bodies benefit from specific medical treatment directed at the specific toxicants, rather than sweating. In addition, many of the toxicants of concern these days, for example: pesticides and many metals, asbestos, are not cleared very well through the sweat.

Risks: The effect of both wet and dry heat to increase fluid loss from the body can also be a problem, particularly in folks who are already somewhat dehydrated (e.g. after heavy exercise with inadequate fluid replacement or in response to the diuretic effects of caffeine, beverage alcohol, and medications (diuretics).

Dehydration can be a problem in people who have blood vessel blockages to the brain and the heart. Some individuals experience an increase in their migraine headaches in response to dehydration.

There are a number of other medications that can affect the body's normal response to heat either by inhibiting sweating or by otherwise interfering with the normal physiology, for example, some medications used for psychiatric conditions like schizophrenia. Use of stimulant medications for conditions like ADD or excessive sleeping also increases the health risks from heat exposure.

5- Sedative -

Benefits: Heat exposure through a dry sauna or steam room causes a sense of relaxation for many people, with both muscle relaxation and a reduction in the sense of stress and anxiety. Many people find use of steam rooms and saunas improves the quality of their sleep.

Risks: Individuals should be cautioned about falling asleep in a steam room or sauna, which can cause serious health concerns if heat exposure is too prolonged.

6- Expectorant –

Benefits: Steam heat (not dry heat) can have therapeutic benefits for thinning mucous making it easier for some individuals to cough up phlegm. It can also free up sinus passage ways and Eustachian tubes in individuals with sinus and Eustachian tube problems.

Risks: This same effect can trigger increased problems with wheezing and chest tightness in some asthmatics and other individuals with lung disease, particularly if they have noted problems when taking a steamy shower previously.

7- Calorie Burn:

Benefits: Although exposure to heat increases energy consumption and thereby increases calorie burn, for example, up to 300 to 400 Kcal during a 20 to 30 minute sauna bath, thus helping to promote weight loss, there are clearly more healthful alternatives available, i.e. EXERCISE ☺.

Risks: Individuals who have been cautioned to restrict exercise intensity by health care providers should be aware that the effects of heat are similar to those of exercise for increasing heart rate. Increasing energy consumption through increased work of the heart can be a concern for people with coronary heart disease, congestive heart failure, valvular heart disease or heart rhythm problems (arrhythmias).

Recommendations:

- 1- Avoid beverage alcohol and excessive caffeine intake and medications that may impair sweating or increase the health risks from heat exposure.
- 2- Stay in no more than 15 to 20 minutes at a time.
- 3- Cool down gradually after use. Avoid going rapidly from a hot to a cold environment, e.g. sauna cold shower as this increases the physiologic stress on the body considerably.
- 4- Drink 2 to 4 glasses of cool water after each session.
- 5- Don't take a sauna or steam bath if you are ill, and if you find yourself feeling unwell while in a steam room or sauna, head for the door.
- 6- Ask your health care provider for advice and recommendations, if you have any concerns about potential health risks from steam room or sauna use.
- 7- We want all of our guests and members to enjoy our facilities. We ask all our members to be considerate of the sensitivities of other users related to nakedness.

References:

- 1- Simon, Harvey, MD Editor in Chief, Harvard Men's Health Watch, as cited in Sauna Health Benefits: Are Saunas Health or Harmful? Harvard Health Publications, Harvard Medical School.
http://www.health.harvard.edu/press_releases/sauna_health_benefits (accessed 11/15/2010).
- 2- Kukkonen-Harjula K, Kauppinen K. Health Effects and Risks of Sauna Bathing. International J Circumpolar Health 65:3;2006.
- 3- Douglas Linz, MD, Medical Director, TriHealth Corporate Health, Email: douglas_linz@trihealth.com, telephone: 977-0016.

