

Hot Weather and Exercise

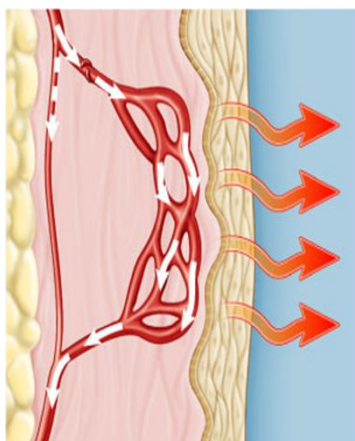
getthehealthy.ca/hot-weather-exercise

In this section you will learn:

- The effects of hot weather on the body
 - Heat safety guidelines
 - Precautions to take when exercising in the heat
- If you plan to complete your exercise outdoors, or engage in activities such as gardening or yardwork, it is important to understand how doing so in higher temperatures can impact your heart.

Effects of Hot Weather on the Body

- The body has temperature-regulating mechanisms to maintain a stable internal body temperature of approximately 37°C.
- During exercise, muscle activity increases the internal body temperature. In response, the following cooling mechanisms occur:



- **Blood vessels:** Blood vessels near the surface of the skin widen (dilate). This redirects blood away from the core, towards the surface of the skin, allowing heat to be transferred to the surrounding environment.
- **Sweat glands:** Sweat glands are activated to produce sweat on the skin's surface, where it evaporates to aid in reducing the internal body temperature.
 - Sweat is made up of water and salts. It is important to ensure you are replenishing this lost fluid by staying hydrated.
 - If too much water is lost via sweating and is not replenished, blood volume decreases, which reduces blood pressure. In response, heart rate increases.

When the environment is humid, water particles in the air prevent sweat from evaporating off the skin's surface. Therefore, the body is less effective at temperature regulation through this mechanism in humid conditions.

- Exercising in hot weather places added risk on individuals living with cardiovascular disease, as the demand on the heart is increased. You may experience:
 - Shortness of breath
 - Excessive fatigue or dizziness
 - Angina (chest pain)
 - Arrhythmias (irregular heart rates)
 - Dehydration, heat exhaustion, or heat stroke
- During exercise, it is important that you monitor yourself for symptoms. Always inform your doctor of any new or worsening symptoms. Call 911 if you experience any new or worsening symptoms that are not resolved quickly

Heat Safety Guidelines

- If considering exercising in warmer temperatures, refer to the Heat Safety Index and Air Quality Health Index to determine if it is safe to do so, or if precautions should be taken
- These values are included daily in the local weather report

Reminder: These tools should be used as a guide and should not replace self-monitoring and individual needs; everyone tolerates heat differently!

Heat Safety Index

- The Heat Safety Index refers to the “feels like” temperature, which includes humidity

“Feels-Like” Temperature	Exercise Recommendations
≤ 28°C	Safe to follow regular exercise prescription when exercising outdoors
29-38°C	Recommended to reduce exercise intensity/duration when exercising outdoors
39-45°C	Recommended to avoid exercising outdoors
≥ 45°C	Recommended to limit any outdoor exposure

Air Quality Health Index (AQHI)

- The AQHI is a scale from 1-10+; a higher AQHI indicates poorer air quality and greater health concern
- Poor air quality can impair exercise tolerance and increase the risk of experiencing symptoms. Individuals living with cardiovascular or lung disease may have increased sensitivity to poor air quality



Precautions for Exercising in the Heat

- **Hydration:** If your healthcare providers have not advised you to limit fluid intake, it is important to drink extra water (not caffeine or alcohol) when temperatures are elevated.
- **Apparel:** Wear light, breathable clothing, and a hat. Wear supportive training shoes; avoid exercising in sandals or flip flops.
- **UV protection:** Wear sunscreen. This is especially important over an incision scar
- **Time of day:** Avoid exercising during peak heat hours (10 a.m. – 3 p.m). Aim to exercise in the early morning or late evening.
- **Exercise route:** Exercise in shaded areas such as conservation areas, trails and parks that have good tree coverage.
- **Indoor alternatives:** Exercise in temperature-controlled environments such as indoor walking tracks, malls, community centres, or fitness facilities. Home exercise videos or use of indoor exercise equipment are great at-home options.

Notes: