



eliteperformance sports conditioning

Exercising in the Heat

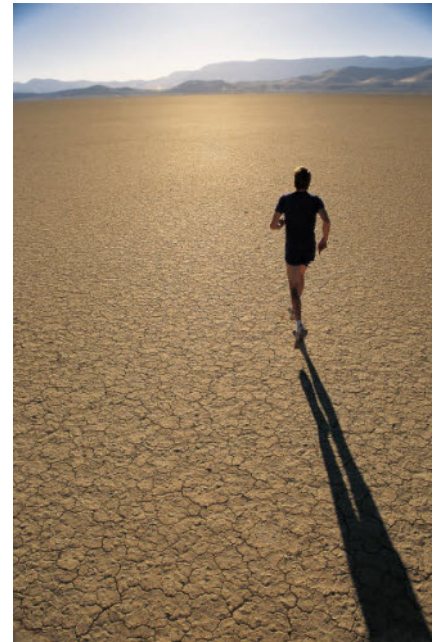
Summer has arrived and it's time to get outside and train in the hot sun!

Beware, even in the UK the heat of the sun can make exercising a more challenging environment for our bodies to cope with. Exercising in the heat can disrupt your body's homeostatic balance.

Metabolic heat, produced during muscle contraction, must be removed from the central organs or they will overheat. Sweating causes a shift of internal fluids, a reduced urine output and usually leads to an increase in drinking.

To maintain your temperature at about 37⁰ C, your body is constantly adapting to changes in air temperature, humidity, air movement, solar radiation, barometric pressure and clothing insulation.

Exercising in the heat increases the requirements for sweating and circulatory responses to remove body heat. In addition, muscular exercise increases your metabolic rate above resting levels and increases the rate at which heat must be dissipated to the environment to keep your inner body temperature from rising to dangerous levels.



Temperature Regulation

Both heat and humidity can be seen as stressors that impose an imbalance in temperature homeostasis. The resulting increase in body temperature is sensed by your brain and increased sweat production is stimulated at the millions of sweat glands. At

the same time, the brain causes the smooth muscles in your skin blood vessels to relax, allowing dilation and increased blood flow to the skin while the brain diverts blood away from the inner organs. The evaporation of sweat cools the skin.

Optimising Heat Acclimatisation

The following are tips for anyone exercising in hot environments whether in the UK or abroad.

1. Exercise in the heat at intensities greater than 50% of VO₂ max. Ideally, your total exercise-heat exposure time each day should be 90-100 min, but you should reach this gradually by increasing duration and intensity.
2. Exercise with a partner or in a group during the initial days.
3. Conduct your higher intensity workouts in the cooler part of the day.
4. Consume 500 ml of fluid 2 hrs prior to exercise.
5. Drink early during the exercise.
6. Fluids should be cool, palatable and readily available in ample volumes.

About eliteperformance

eliteperformance are based on the Wirral in the North West. They provide sports conditioning, personal training and sports therapy to a wide range of clients. Visit www.eliteperformance.biz