

Water slips down

Water is as essential in the winter as in the heat



Just because temperatures are dropping doesn't mean you should let your hydration guard fall.

Winter cold can blunt your idea of exertion and sweat loss so don't be lulled into ignoring your body's need for vital fluids.

Water can make the difference between peak or poor performance. Several studies have shown that a 2% drop in weight through fluid loss can hinder performance.

life's key element

Water is the most important element for human survival. It makes up at least 60% of our weight and has a number of life-sustaining purposes. It regulates temperature, helps the metabolism and the passage of waste products. These functions govern the body's fluid levels.

We lose water in two ways, through evaporation (sweating and breathing) and excretion (in urine and faeces). Evaporation is especially important for fitness enthusiasts as the body's main way of dispersing heat during exercise.

weathering it

The weather can help or hinder the cooling effect of evaporation. Sweat evaporates easily on hot, dry days while humidity compromises evaporation since humid air has nearly as much fluid as sweat. The heat you generate through

exercise remains trapped in your sweat and tissues, raising your body temperature. Your body sweats more in an effort to reduce heat, leading to dehydration.

Drink fluids well before you feel thirsty to avoid dehydration.

cold as ice

When it's cold, you may not feel as if you are sweating as much as in summer. This misconception is because of the greater difference between body temperature and air temperature, lower humidity and quicker heat dissipation through evaporation. In the cold, your body continues to produce sweat.

To exercise in cold weather, dress in layers that can be peeled off as you warm and will promote sweat evaporation. Wearing a bulky jacket increases your risk of dehydration. It can trap heat, hinder evaporation, and cause you to lose more water.

high on water

Winter offers the chance to head to the mountains for skiing and snowboarding and climbing. Unfortunately, many people are unaware of how altitude affects hydration.

We breathe faster in thinner air and lose fluids through evaporation in our respiratory tract. Cool temperatures and low humidity make it easy for sweat to evaporate. It's wise to drink more at altitude than you would at sea level.

NZPL

liquid lunches

endurance

Dehydration can be a particular problem for endurance athletes. Drink before, during and after exercise to reduce the risks and help maintain performance.

other options

Whether to drink plain water or a sports drink depends on the intensity, frequency, and duration of your workout. Water is generally sufficient to replace fluid lost during low-to-moderate-intensity exercise lasting less than an hour. Your next meals will easily replace the nutrients – lost through sweat and metabolism – before your next workout. Drink tap water or a variety of bottled water.

sports drinks

Prolonged, vigorous exercise for more than an hour may warrant the use of sports drinks to rehydrate and to replenish carbohydrates as your body's muscle and liver glycogen stores dwindle. Most sports drinks are made with simple carbohydrates that are quickly digested and burned for energy during a workout.

Longer, more intense exercise can lead to electrolyte imbalances

Coffee and soft drinks are not advisable for hydration.

that water alone will not correct. Sports drinks can provide electrolytes to prevent this and in the appropriate quantities.

coffee soft drinks alcohol

Coffee and soft drinks are not advisable for hydration.

Caffeine is a diuretic, which promotes urination and can hasten dehydration. Soft drinks are not advisable since their sugar content may be higher than sports drinks and draw water into your digestive tract to aid in dilution and digestion. This can cause gas, bloating and diarrhoea.

Alcohol is a central nervous system

depressant that can impair performance by affecting motor skills. Like coffee

and soft drinks, it can also promote dehydration through increased urination.



research and debate

How much and when

Research has proven that countering water output with fluid replacement can eliminate the threat of dehydration. But how do you know how much to drink?

First, know the golden rule of fluid intake: by the time you feel thirsty, it is probably too late. You will have already experienced some degree of dehydration. Your best bet is to drink 250-500 ml of fluid 15 minutes before exercise and 125-250 ml every 15 minutes during exercise.

Tailor this to your personal fluid needs, weather, altitude and conditions in which you are training. After exercise, drink at least one litre of fluid for every kilogram of body weight lost.

Cold v hot

It's debatable whether fluid should be drunk cold or warm. Warm fluids have been found to give some protection against overheating but cold fluids enhance cooling by absorbing some of your body's core heat. Different water temperatures do not seem to compromise performance since there's no proof that warm and cold water leave the stomach at different rates. Cold water may simply be more palatable and refreshing during exercise.

Remember, the body strives to maintain its internal biological balance during a workout by excreting sweat to cool its muscular machinery. To maintain a fine-tuned machine, it's critical that your drinks are timely and in proper proportions. That way you'll avoid feeling under the weather. – William Sukala. ■