



# HYDRATION FOR RECREATIONAL AND PHYSICAL ACTIVITIES

The Department of Health recommends that adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2 hours and 30 minutes) of moderate intensity activity in bouts of 10 minutes or more (e.g. 30 minutes of activity at least 5 days a week)<sup>1</sup>.

This fact sheet explains hydration requirements for people carrying out moderate-intensity physical activity. These are activities which are recreational, for example related to hobbies or social interests.



## WHAT COUNTS AS MODERATE-INTENSITY PHYSICAL ACTIVITY?

This is physical activity that is carried out in daily life where extra effort is required to perform the activity or exercise. Moderate intensity physical activity will increase the heart rate and rate of breathing.

A good way to tell if you're working at this level of intensity is if you can still talk, but you can't sing the words to a song!<sup>1</sup>



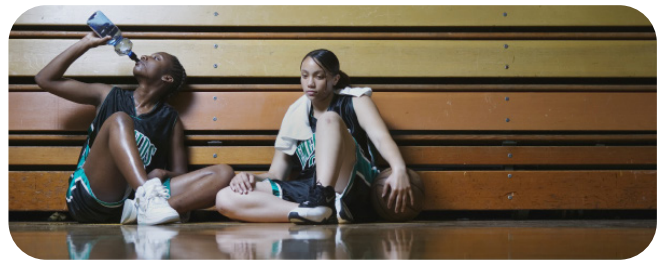
Activities can include the following:

- Gardening
- Brisk walking
- Walking a dog
- Hiking / hill walking
- Dancing
- Skateboarding
- Rollerblading
- Volleyball, basketball
- Housework and domestic chores
- Active involvement in games and sports with children
- DIY such as painting, building, roofing
- Carrying / moving moderate load (<20kg)<sup>1</sup>

Whilst it is clear that exercise may alter hydration requirements, the importance of staying hydrated when undertaking these kinds of physical and recreational activities often gets overlooked.

# HYDRATION REQUIREMENTS

Hydration requirements vary depending on the activity carried out. Basic guidelines advise that women should drink about 1.6 litres of fluid and men around 2.0 litres of fluid per day<sup>2</sup>. This is the equivalent to about eight 200ml glasses for a woman and ten 200ml glasses for a man<sup>3</sup>, which ideally should be sipped at regular intervals throughout the day.



## FACTORS AFFECTING HYDRATION LEVELS

Every individual is different and the amount of water needed to hydrate varies from person to person. On a day-to-day basis there are many factors that can affect an individual's need for water, such as age, gender, body mass, physical activity levels and climate.

When undertaking physical activities, you should consider the frequency, intensity and duration to ensure you are adequately hydrated. For example dance is a physical activity that can be carried out over long time periods, sometimes for several hours, in warm, enclosed environments. For these reasons, you should think about your hydration needs to ensure maximum enjoyment of the activity while preventing signs of poor hydration, as discussed in Table 1.

It is also important to think about the climate (temperature, humidity, altitude). Environmental factors may also change over time. For example, if you are going hill walking it may be warm at the early stages of the walk, yet cold and windy towards the top of the hill. Safety issues such as rugged

terrains may also limit the amount of fluid that you consume as it may be too dangerous to stop for a drink.

Careful planning can help you to perform at your very best. In the case of hill walking, make sure you carry water with you and plan stops en route where you know it is safe to break for a drink.

The table below summarises key factors that can influence an individual's water requirements.

**Table 1**  
**Factors that can influence water requirements:**

Duration of activity
Intensity of activity
Sweat rates
Temperature of environment
Altitude (higher altitude increases breathing and loss of water)

## WHEN TO HYDRATE

It is important to be well hydrated before starting physical activities, and once activities have begun, water should ideally be sipped at regular intervals, approximately every 20 minutes or so. This is especially important in hot weather or at high altitudes.

As physical activities often immerse people in what they are doing it can be easy to forget to drink, or you may not realise it is necessary, so having little breaks

or easy access to fluid is advisable. For most people, water is adequate and it hydrates without containing sugar, calories or additives, so packing a bottle of water is a good idea.

It is also important to rehydrate after physical activities. This is best achieved by sipping at intervals, rather than gulping large amounts at a time, and again for most people water will adequately rehydrate you.

# WHY IS HYDRATION IMPORTANT?

Being poorly hydrated may have a negative impact on your performance, your reaction times and you might get tired more easily.<sup>4</sup> This may especially be the case in hot, humid conditions or when recreational activities are prolonged.<sup>4</sup> Some side-effects linked to poor hydration status during recreational activities are shown in Table 2.

**Table 2**  
**Implications of poor hydration when carrying out physical activities:<sup>5</sup>**

▲	risk of heat illness
▲	heart rate
▲	feelings of effort
▼	performance
▼	mental function
▼	ability to regulate body temperature
+	development of headaches, nausea

Source: adapted from Maughan et al. (2007)<sup>5</sup>

Some recent studies have also shown that people carrying out physical activity can lose significant amounts of weight, which can impact on performance. For example, in controlled studies, a 2 per cent loss of body mass, i.e. 1.4kg for a 70kg adult, can result in around a 20 per cent decrease in performance levels in a temperate climate and up to a 40 per cent decrease in hot temperatures<sup>6</sup>. Recommendations for mountaineers at high altitude suggest that approximately 4-6 litres of fluid are required per day.<sup>7</sup>

## Please note

This information sheet has been based on scientific evidence available. The information contained in this fact sheet is not a substitute for medical advice or treatment, and we recommend consultation with your doctor or health care professional if you have any health concerns.



**FURTHER INFORMATION**  
Natural Source Waters Association  
[www.naturalsourcewaters.org.uk](http://www.naturalsourcewaters.org.uk)

## SIX TIPS FOR HEALTHY HYDRATION

The simple tips below help to summarise why maintaining adequate hydration levels is important when carrying out physical activity, enabling these activities to be enjoyed to their utmost.

- 1 For most people participating in physical activities, water will rehydrate you adequately without adding sugar, calories or additives into your diet.
- 2 Perform at your best and pack a bottle of water with the rest of your gear.
- 3 Sip water in small amounts before, during and after the activity.
- 4 Replenish water regularly especially when your sweat rates are high; you are in hot and humid conditions; or at altitude.
- 5 An easy way to monitor changes in hydration status is to check the colour of your urine.<sup>8</sup> This should be pale straw colour - anything darker and more fluid is needed.
- 6 Every 1 litre of water is equivalent to 1kg of weight. Weighing yourself before and after the recreational activity is a good way of judging water requirements, as a loss of 0.5kg is the equivalent to a loss of around 500ml of water.<sup>8</sup>

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### References

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