

## Oh wondrous water

It is no surprise that being inadequately hydrated can affect how we feel and perform at work. Even a reduction in hydration levels of as little as 2% of body weight can:

- » influence mood, with increased feelings of tension and anxiety,
- » lead to feelings of fatigue and reduced levels of alertness, and
- » impact cognitive (brain) function and reduce short term memory and the ability to process and interpret information.

Staying hydrated therefore will help to improve our work productivity, helping us to perform better mentally and physically, and offset potential safety risks.

It is for this reason that a Code of Practice exists under the Work Health and Safety Act on managing the work environment and facilities. Under this code, employers must:

- » Supply adequate clean drinking water, provided free of charge for workers at all times, and
- » The supply of drinking water should be:
  - » Positioned where it can be easily accessed by workers close to where hot or strenuous work is being undertaken to reduce the likelihood of dehydration or heat stress
  - » At a temperature at or below 24<sup>O</sup>C, achieved through refrigeration, providing ice or shading water pipes and storage containers from the sun.

#### Rate your urine

While there is a definite responsibility for employers to provide the means to help employees stay hydrated, workers should also be encouraged to monitor their own hydration status, by noting urine colour and volume, as per the Hydration Chart:

#### HYDRATION CHART

Safe Zone HYDRATED	1	
	2	
	3	
Danger Zone <b>DEHYDRATED</b>	4	
	5	
	6	
	7	
	8	

- If your colour urine matches 1 3 you are adequately hydrated.
- If your urine matches 4 8 you need to drink more fluids.



#### So how much is enough?

For the general population; two litres or 8 cups.

For those working in particularly hot conditions, in your PPE, undertaking strenuous work for prolonged periods, your hydration needs to increase. The recommendations are as follows:

- » Manual workers: 1 L/hr of either plain water, supplemented by frequent meal breaks or industrial electrolyte replacement products (e.g. powders, tablets, hydralyte, berocca or ready to drink),
- » Machinery operators: 600 mL/hr of water, in addition to food and any other beverages consumed.
- » Food must also be consumed at meal breaks in order to replace electrolytes and maintain energy.

If you rely solely on your thirst levels, you're likely to be playing catch up, as usually by the time you feel thirsty you're already dehydrated. Instead of waiting until you feel thirsty, where practical, you should drink 200mL – 330mL of fluids every 20 minutes to replenish the necessary fluids in the body.

# What's the best choice when it comes to hydration?

It's easy to get bamboozled when it comes to beverages – how do you navigate between sports drinks, vitamin waters, fruit juices, flavoured milks, water and soft drinks?

But ignore the bells, whistles and fancy labels:

Water is the ideal choice because it is readily available and contains no energy (kilojoules)

Milk is also an excellent choice – it's actually 90% water but has the added benefits of calcium, protein and other essential nutrients

Fruit juice and soft drinks are high in sugar and can contribute excess sugar and energy to the diet. But if you are opting for one of these, go for 97-100% fruit juice or a diet soft drink. Better yet, opt for an actual piece of fruit which will give you a hit of water, vitamins and a spot of fibre

Energy drinks are very high in sugar, caffeine and other stimulants. These are not designed to hydrate the body and can have negative health effects, including increased heart rate and blood pressure

### A special word on sports drinks

Sports drinks aren't recommended in large quantities because these drinks are not adequate to replace large electrolyte losses. Instead, industrial electrolyte replacement products (e.g. powders, tablets or ready to drink) allow targeted replacement of the electrolytes (sodium and potassium) lost through sweat, and the restoration of fluid balance.

Maintaining adequate hydration is the single most important strategy to counteract the effects of thermal stress, thereby helping you to perform better mentally and physically, and offset potential safety risks.

You may be surprised to know that our brains are about 70% water and our bodies are made up of at least 50% water. Water plays an incredibly important role within our bodies - it forms the basis of blood, digestive juices, urine and perspiration and is found in lean muscle, fat and bones. Water eliminates waste products, transports nutrients around the body and regulates body temperature.

