

A guide to

# Healthy Hydration with an ileostomy

Written by Sarah Russell

MSc Sport Science, Wellbeing Advocate,  
ConvaTec August 2016

Reviewed by **Caroline Rudoni**, Clinical Manager, Amcare Group  
**Professor Sina Dorudi**, Consultant Colorectal Surgeon, Princess Grace Hospital



 ConvaTec

 Amcare  
GROUP

We all know that drinking plenty of fluid is vital for good health. But when you have an ileostomy it becomes even more important. Your hydration needs are greater and more complex than someone who doesn't have a stoma because you lose extra fluid through your stoma output. [2]

Being well hydrated is important for every single biological function of your body; it helps you stay alert, improves concentration and is vital for all aspects of your health and wellbeing.

However, most people don't drink enough fluid. It's estimated that around 80% of the UK population don't drink enough fluid for good health. In addition, the majority of people with an ileostomy regularly show some signs of dehydration [2].

You may not be aware of it, but even mild dehydration can make you feel tired, groggy and unwell with a headache and inability to concentrate. On the other hand, being well hydrated, can make you feel more energised,

alert and healthy. Drinking plenty of fluid is also important to prevent blockages.



## Step up to the challenge!

It's likely you'll need to drink more than you did before your surgery or make changes to your choice of drinks. Whilst this might feel overwhelming initially, try to see it as a challenge to make positive improvements to your health.

**Drinking more is one of the simplest ways to improve your health and wellbeing.**

## How do you know if you're drinking enough?

The best indicator of your hydration status is your urine colour. How does the colour of your urine compare to the chart?

Aim for light straw coloured urine – this means you're probably drinking enough. If your urine is darker in colour you need to drink more fluid.



On the other hand if your urine is completely clear, you may in fact be drinking too much which can flush the electrolytes out of your body. This is more likely if you just drink lots of plain water. If this is the case, choose an electrolyte drink such as Dioralyte™ and reduce your intake of plain water. You'll find your body absorbs the fluid more effectively and you'll feel less 'washed out'.

**If you feel severely dehydrated or if your urine is very dark in colour, then seek medical advice immediately**

## Top Tips for Healthy Hydration

1

### Drink little and often

Aim to drink small amounts at regular intervals throughout the day. Choose from a wide variety of drinks. Some people find it helpful to set an alarm on their phone as a reminder.



2

### Always take a drink when you go out

Take a bottle when you're out and about, so you have access to fluid at all times. Don't assume you'll be able to buy a drink. Be prepared and take it with you, especially if you're travelling or out on a long car journey.



3

### Your body knows best

Match your hydration strategy to your own needs. Everyone is different and your requirements will change every day – depending on the weather and your lifestyle. Listen to your body and tune into any signs of dehydration.



4

### Hydrate for activity

Make sure you're well hydrated before any kind of physical activity and rehydrate during and afterwards. Choose dilute squash or an electrolyte drink rather than water.



5

### Don't wait until you're thirsty

It's easy to get caught out or forget to drink when you're busy. Stay one step ahead of dehydration. Don't wait until you're thirsty, by then you're already becoming dehydrated.



6

### When it's hot

In warmer weather you'll sweat and lose more fluid. Step up your hydration strategy and make an effort to drink more fluid and choose a drink with electrolytes. Carry a drinks bottle everywhere with you and drink little and often.



7

### Air conditioning

Air conditioning is a very dehydrating environment and it's surprisingly easy to become dehydrated when you're at work in air conditioning or on a flight. Keep a bottle of fluid on your desk, always take a drink into meetings and make an effort to drink more when flying.



8

### Drink on the move

Hydration backpacks have a drink bladder inside and a long drinking tube to make it easy to carry and drink on the move. Many people find this a great option when out and about hiking, sightseeing or cycling.



9

### Get the balance right

It's not common but it is possible to overdo it and drink too much water; especially if you just drink plain water. This can dilute the electrolytes in your body and can also increase your stoma output, making fluid losses worse. Be careful not to be overzealous with your water intake.



Try to get the balance right, use your urine colour as the best guide and listen to your body.



## How does your body lose fluid?

**During a typical day the average person loses approx. 2.5 litres fluid through sweat, urine, breath and faeces. [3]**

Air conditioning, warm temperatures, humid weather and central heating also cause you to lose more fluid.

On top of that, the average ileostomy fluid losses are approximately 800-1000ml per day.



**During strenuous physical activity it's possible to sweat up to 500ml -2 litres per hour. [11]**

### BE AWARE:

If you regularly have particularly high or watery output you should speak to your stoma nurse or GP about treatment options. Many people find taking loperamide (otherwise known as Immodium™) on a regular basis can control their output and reduce fluid loss.

Addressing your stoma losses – as well as ensuring adequate fluid intake – is an important aspect of managing your hydration status.

## How much should you drink?



**Everyone is different and there is no hard and fast rule. Take the time to develop your own hydration strategy to match your own specific needs.**

Your hydration is dynamic; the amount and type of fluid you need will be determined by many different situations. The activity that you do, the weather, your environment, your stoma output and other factors like diet and stress will all have a part to play.

Learn to listen to your body and how it reacts in different situations.

There are no hard and fast rules about how much you should drink. Everyone will have different needs from one day to the next. NHS guidelines recommend around 6-8 glasses of fluid (1.5-2

litres) per day<sup>[1]</sup>, but many people will need much more than that and those guidelines are for someone without a stoma.

Remember that with an ileostomy, your fluid and electrolyte losses will be greater than someone without a stoma.

It's better to monitor your hydration status and urine colour, then drink to meet your own needs, rather than aim for a specific amount.

However, the general rule of thumb is that most people need to increase their fluid intake and drink more on a day to day basis.

## What should you drink?

**All drinks count towards your fluid intake including tea, coffee, juice, cordial, soda, squash, milk and water. Try to limit your intake of strong coffee and alcohol.**

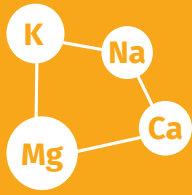


It's important to have a wide choice of drinks every day which will encourage you to drink more and get your hydration in balance. Choose drinks that you enjoy and you'll be more likely to drink more often.

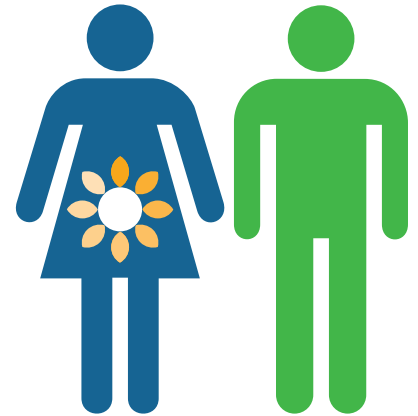
When you have an ileostomy it's very important

NOT to drink excessive amounts of plain water. This can flush the electrolytes from your body and increase your stoma output, making dehydration worse. It's fine to drink some water of course, but try to include a wide range of fluids including squash, juice and electrolyte drinks.

## The science behind the advice



Electrolytes are essential minerals and salts – sodium, potassium and magnesium – which are vital for bodily functions. You lose electrolytes through sweat and stoma output and they need to be replaced.



**To be absorbed well by your body, a drink needs to have a small amount of glucose and the right balance of electrolytes.<sup>[4]</sup> This is something known as ‘osmolarity’.**

The osmolarity of a drink is very important. A drink with a lower osmolarity means that your body will absorb the fluid and be better hydrated.<sup>[6]</sup>

Some drinks are better than others. Traditional sugary sports drinks (typically bought in the supermarket or from vending machines) have a very high osmolarity and are not absorbed well by the body. They are also unhealthy and full of unnecessary sugar.

**If you urinate a lot or you have a very high stoma output, you may be drinking too much. Re-assess your fluid intake and choose a drink with electrolytes in it.**

World Health Organisation (WHO) approved oral rehydration solutions (ORS) such as Dioralyte™ are designed specifically to be well absorbed due to the optimal balance of sodium, potassium and a small amount of glucose.

### IMPORTANT POINT:

Oral rehydration solutions shouldn't be seen as a last resort, they can be used as part of your daily hydration management strategy. You may wish to have 200-400ml of Dioralyte™ (or similar product) every day to help you stay well hydrated. Speak to your GP or stoma nurse about this.

Don't wait until you feel dehydrated. If your output increases or the weather gets hot, then choose an electrolyte solution.

This helps you stay one step ahead of dehydration and remain healthy and well hydrated.

### BE AWARE:

Strong coffee, alcohol, fizzy drinks, sugary drinks, strong fruit juice and caffeinated energy drinks can stimulate your intestine, increase your output and make dehydration worse. So be aware of how they affect you.

Coconut water has become popular in recent years. Whilst it's high in potassium and a very pleasant natural drink, it is actually very low in sodium.



In recent years, extensive research has found milk to be an excellent hydrator<sup>[10]</sup>. Containing the right balance of electrolytes and carbohydrates, it's easily absorbed by the body and studies have shown it to be more effective than water.

## Top Tip

Experiment with different drinks and find out what works best for you. Everyone will have different needs, tastes and responses to various fluids. It's important to have a range of drinks that you enjoy which will encourage you to drink more.

## What about sports drinks?

**Sports drinks are designed to replace glucose and salts in athletes and they are often recommended when you have an ileostomy.**



However, the sugar contents of some of the well-known brands (the sort you can buy in the supermarket or in a vending machine) is often very high whilst the sodium content is low. A high sugar drink is unhealthy, may cause you to gain weight and is not well absorbed by your body.

Some newer sports drinks however are lower in sugar and have a lower osmolarity. Look for a drink which has less than 4g of sugar/ carbohydrate in 100ml of drink.

Drinks such as SOS Rehydrate™<sup>[8]</sup> or Skratch Labs™ Daily Electrolyte Mix<sup>[9]</sup> may be more suitable and available online. These can be used on a daily basis and also during physical activity. There are many commercial products on the market, so read the labels carefully.

**This chart shows a comparison of various drinks. For optimum absorption, choose a drink close to the WHO ORS recommendations.**

KEY ELEMENT OF REHYDRATION	WHO ORS*	SOS REHYDRATE™	SKRATCH LABS HYDRATION MIX™	LUCOZADE SPORT™	COCONUT WATER
Osmolarity (Lower = Faster Absorption)	200-310	230	280	350-360	280
KCalories	25-65	20	90	140	90
Carbohydrates/sugar (g)	5-17	6	22	32	22
Sodium (mg)	650-1035	660	300	250	150
Potassium (mg)	290-485	380	40	0	940
Magnesium (mg)	Optional	100	30	0	0

\*WHO guidelines for Oral Rehydration Solutions

Based on 500ml

## Dehydration






### Many people – both with and without an ileostomy – are chronically dehydrated every day.

Although not severe, this mild level of dehydration is enough to cause symptoms such as headaches and tiredness. These are often attributed to other health conditions, but they are more usually due to dehydration.

#### IMPORTANT POINT

A survey of GP's in the UK found that they believe dehydration to be the primary cause of at least 10% of cases of tiredness and fatigue in their patients.<sup>[5]</sup>

#### What are the signs of mild dehydration?

-  HEADACHE
-  THIRSTY AND DRY MOUTH
-  DARK URINE
-  TIREDNESS AND FATIGUE
-  POOR CONCENTRATION

#### REMEMBER

Most people simply don't drink enough for good health. You may not realise you're dehydrated, but drinking more can make you feel more energised and focused.

It's much better to stay one step ahead of dehydration. Drink little and often every day.

Remember, here isn't a 'one rule fits all' when it comes to hydration, everyone is different. Take the time to work out what you need.

Drinking more is one of the simplest ways to improve your health and wellbeing.

#### IMPORTANT

If you feel very dehydrated, are losing excessive fluid from your stoma or your urine is very dark, then seek medical advice from your GP or stoma nurse.



**Always speak to your stoma nurse or GP if you need more advice.**

## Hydration for physical activity and sport

### During intense physical activity or sport it's possible to sweat up to 500ml – 2 litres per hour.<sup>[11]</sup>

On top of your stoma losses (800-1000ml approx.), this can create a real problem and you can become dehydrated very easily. You also lose more sodium in sweat, so this also needs to be replaced.

Being optimally hydrated is vitally important if you want to participate in sporting activities. Aim to be well hydrated BEFORE you start any physical activity and then drink during and afterwards to rehydrate. Choose your drinks carefully and make sure you select an electrolyte solution or hydration sports drink.

Some people find that regular use of Dioralyte™ on a day to day basis helps them stay one step ahead of dehydration, and is good way to rehydrate after exercise.

During exercise it's important to find a drink you can tolerate, which doesn't increase your output

and which you enjoy the taste.

Experiment with different options to find what works best for you. The concept of osmolarity is even more important during exercise, so look for a sports drink which has high levels of sodium and potassium and less than 4g of carbohydrate per 100ml. Plain water is not a good choice during exercise for people with an ileostomy.

**Aim to drink around 300-600ml of fluid per hour during exercise, but you may need more or less depending on your own personal needs. Experiment and see what works for you.**

Hydration backpacks are a great choice for runners, cyclists or those out hiking or walking. This enables you to drink on the move and encourages you to drink more.





## Case Study



**Sarah is a marathon runner with a relatively high stoma output. She is 44 years old, is a busy working mum and has an active lifestyle.**

**Because of her high output and active lifestyle, Sarah can easily become dehydrated. Sarah is also often travelling or working in air conditioned buildings which increases her fluid needs.**

However, she has developed various strategies to enable her to remain healthy and active.

1

Daily use of Dioralyte™ to maintain optimum hydration status. She consumes 400ml of Dioralyte™ every morning before breakfast with regular top ups during the day, especially when it's warm or after running. On an average day she'll consume around 1 litre of Dioralyte™ in addition to other drinks. She rarely drinks plain water as this has the effect of flushing out electrolytes.

2

When running she uses a 'Sports Hydration' solution (such as SOS Rehydrate, Skratch Labs Hydration Mix or similar) rather than a traditional sports drink, which is too high in sugar. She aims for around 400ml per hour depending on the weather conditions.

3

Daily use of Loperamide to control her high output. Sarah uses oral dissolvable Immodium™ tablets and takes up to 20-30mg per day as needed.

She is vigilant about her hydration and tries to stay 'one step ahead' rather than waiting until she feels dehydrated, so she carries a bottle everywhere with her and is especially conscientious when travelling and at work. All of these strategies together allow her to remain healthy and able to enjoy marathon running and having an active lifestyle.



## Case Study



**Helen is 36 years old, is a club runner and has a busy working life. She enjoys travelling and has learned strategies to manage her hydration needs in hot climates.**

**In the past Helen has needed to use up to 24mg of loperamide per day to manage the output from her ileostomy.**

Without this her output was fairly watery and loose which meant she became dehydrated quite quickly. Over time Helen's small bowel adapted, her output is much more formed and the need for loperamide disappeared. Helen still keeps a stock of loperamide at home and when travelling for times when her output is loose to avoid losing too much fluid from her stoma.

On a day to day basis Helen drinks a 500ml homemade smoothie (containing almond milk, banana, oats, avocado and frozen berries) for breakfast and then 1-1.5 litres of squash/diluted fruit juice throughout the day. Helen also enjoys 2 or 3 cups of tea during the day and drinks chamomile tea at bedtime. She finds this fluid intake sufficient to keep her hydrated in the ordinary course of events.

When travelling in hot countries Helen uses Dioralyte™ and loperamide to manage changes

in her output which can be the natural result of different eating and drinking habits. When running Helen drinks 500ml of squash about an hour prior to her run to ensure she is adequately hydrated whilst out and then 500ml of HIGH5 Energy Source 4:1 (a carbohydrate and protein drink with electrolytes) afterwards to manage extra fluid loss through sweating and aid her recovery. For runs of over an hour Helen will carry a hydration backpack filled with water and a secondary bottle filled with a sports hydration solution.

### NOTE

**These are case studies of two particular ostomates, and it's important to acknowledge that everyone will be different. Take the time to identify your own needs and responses and try to find a strategy that works for you.**



## References

1. EFSA (2010) Scientific Opinion on Dietary Reference Values for water. *EFSA Journal* 8(3):1459
2. Ng, D. H. L., Pither, C. A. R., Wootton, S. A. and Stroud, M. A. (2013), The 'not so short-bowel syndrome': potential health problems in patients with an ileostomy. *Colorectal Disease*, 15: 1154–1161. doi: 10.1111/codi.12252
3. Jéquier E & Constant F (2010) Water as an essential nutrient: the physiological basis of hydration. *European Journal of Clinical Nutrition* 64(2): 115-23.
4. Oral Rehydration Salts. Production of the new ORS. World Health Organisation 2006.
5. [www.naturalhydrationcouncil.org.uk](http://www.naturalhydrationcouncil.org.uk)
6. <http://rehydrate.org/ors/ort-how-it-works.htm>
7. <http://rnli.org/NewsCentre/Pages/How-hydrated-is-Britain.aspx>
8. <http://sosrehydrate.com>
9. <https://www.skratchlabs.com/collections/products>
10. P Watson, T Love, R Maughan, S Shirreffs. Comparison of the effects of milk and a carbohydrate-electrolyte drink on the restoration of fluid balance and exercise capacity in a hot humid environment. *European Journal of Applied Physiology Online*. July 2008
11. American College of Sports Medicine Roundtable on Hydration and Physical Activity: Consensus Statement. *Current Sports Medicine Reports* 2005, 4:115–127