

Living with a Stoma  
**Hydration Guide**

Ostomates  
kitchen

Staying consistently hydrated is the most effective lifestyle change you will make



**Expert advice from a  
UK Registered Dietitian**

 **fittleworth**

working with  
**Colostomy**  
UK 

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# Introduction



Fittleworth has worked in partnership with Laura Coster BSc (Hons), HCPC Registered, mBDA to create this hydration guide.

Laura is an NHS and private practice Dietitian who sees patients one-to-one, and presents nutrition workshops around the UK for companies and charities. She has held four senior Dietitian posts in the NHS and has considerable experience working with patients who have undergone stoma-formation surgery.

## ***Important Notice – Always check with your GP***

*The information provided is intended for guidance alongside any professional medical advice from your healthcare team, and is not a substitute for any tailored advice you are given from a qualified medical professional. The advice given here covers a range of hydration queries of those with stomas and includes reference to urostomies, jejunostomies, ileostomies and colostomies.*

*There are multiple types of stoma and sometimes people need to adjust their hydration requirements, in the short term or for longer. Remember that not everyone with a stoma needs to change the way they eat and drink. It is always best to discuss with your Doctor, Specialist Nurse or a Registered Dietitian before making any changes to your diet or your hydration habits.*

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At the time of writing, all information was based on current guidelines and evidence-based best practice – June 2019.

# Why hydration is necessary

Hydration is important for almost all aspects of our bodily functions, being hydrated means having enough fluid for your body to work as efficiently as it can. If you have a stoma, then due to stomal losses, you're likely to be extra aware of the importance of hydration compared to the average person. Approximately 50-60% of our body weight is water; for a female weighing 10 stone, that's 5-6 stone in just water (~63.5kg and ~31-38kg respectively). The water in our bodies helps transport nutrients, regulates our temperature and aids the removal of metabolic waste products.

***We lose water through several mechanisms including sweating, breathing (water vapour), urine and looser bowel movements. Approximately 9L of liquid moves through the small intestine each day, but usually only 1.5L of this will reach the colon.***



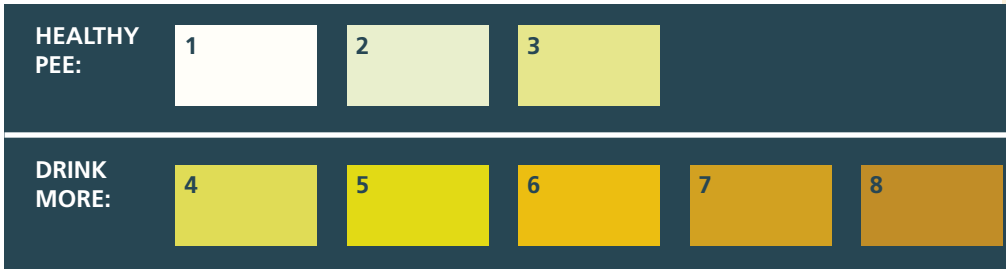
After bowel stoma surgery, especially for those with ileostomies or colostomies on their right-hand side, the gut has to adapt and improve at absorbing fluid to minimise dehydration. For people with urostomies, consuming enough fluid is especially important to keep urinary tract infections (UTIs) at bay, but also minimise the risk of any tubing or stoma blockages. If our bodies lose too much fluid, or we don't consume enough, this can cause different problems that may need treatment in hospital. From research, we know that of those who are re-admitted to hospital after stoma surgery, ~40% of these people are admitted for dehydration treatment. To be as little as 1% dehydrated (that's under-drinking by just ~500ml), can decrease both physical and mental abilities.

## Dehydration-related health problems:

- Urinary tract infections (UTIs)
- Headaches
- Constipation
- Dizziness that can lead to falls
- Confusion
- Kidney stones
- Pressure ulcers/skin conditions

# Recognising dehydration

Between 800-2000ml of urine a day is normal; this can be between 2-6 (mostly full) urostomy pouches. The urine produced soon after waking is usually darker yellow, otherwise urine should be coloured 1-3 according to the urine colour chart.



*Urine colour changes can be related to food and drink e.g. consuming lots of beetroot or bright coloured fizzy drinks.*

In the first few weeks after urostomy surgery, you will learn what is a normal daily urine volume for you. Other dietary factors can also change the volume of our urine e.g. a higher volume of urine due to consuming lots of caffeine. For colostomies, most people should pass formed stools and dehydration isn't as likely. For ileostomies, 500-1500ml of a porridge-like consistency stool is normal. For all bowel stomas, stool losses of over 1500ml/day is considered "high output" and is considered a high risk factor for dehydration, however having looser than normal bowel movements can still be dehydrating. It's important to be able to recognise when you're dehydrated to prevent nasty symptoms and health problems like UTIs. Thirst is not a reliable marker of dehydration, it's a symptom that happens after you are already dehydrated. Children and older adults can have a weaker thirst response to dehydration so it's important to monitor the hydration of these people.

## Common signs of dehydration:

- Less frequent, a lower volume and darker urine
- Dry lips, mouth and eyes
- Feeling dizzy or lightheaded (especially on standing)
- Headaches
- Muscle cramps

If someone's dehydration isn't managed well, there can be severe signs that indicate this person should immediately go to hospital to be quickly rehydrated.

## Severe dehydration signs:

- Feeling unusually tired or confused
- A weak or rapid pulse
- Fits (seizures)
- Being very drowsy/unroutable

# How much fluid is enough?



***Most people need ~6-8 cups of fluid a day, this is ~1.8-2.4L or 3-4 pints.***

Most people need ~6-8 cups of fluid a day, this is ~1.8-2.4L or 3-4 pints. For those who lose excess fluid, either through sweating or with looser than usual stools e.g. jejunostomies and ileostomies, extra fluid is needed to replace these losses. Normal bowel movements that are formed cause minimal fluid loss, but those with colostomies on their right-hand side, ileostomies or jejunostomies are likely to

have looser or watery stools. Looser stools cause extra loss of fluid, but also causes loss of electrolytes such as sodium, potassium and magnesium too. If you have higher fluid losses than the average person e.g. non-formed stools, it's best to drink the recommended 6-8 cups of fluid a day plus choose saltier foods and 'hydrating foods' section - see 'hydrating foods' section.

Occasionally when someone has loose bowel movements, drinking more fluid can make them more dehydrated. If the bowels are emptying too quickly, there is not enough time to optimally absorb fluid as well as electrolytes. Losing electrolytes too quickly can cause imbalances in the blood, triggering problems like low blood pressure, muscle cramps or more dangerous issues e.g. an irregular heart rhythm.

If you're passing large volumes of watery stools (over 1.5L/3 pints per day) then drinking more may not help and it's best to speak with your Doctor or Specialist Nurse.

***The average 70kg man (~11 stone) needs:***

***~2.1 – 2.5L a day, that's 4-5 standard water bottles or 4.5 pint glasses***

***The average 60kg woman (~9 ½ stone) needs:***

***~1.8 – 2.1L a day, that's 3-4 standard water bottles or 3-4 pint glasses***

# What counts as hydrating fluids?

**Not all drinks are hydrating and some can actually contribute to dehydration. When looking for hydrating options, choose:**



- Water\*<sup>1</sup>
- Well-diluted squash or cordial
- Fruit juice\*<sup>2</sup>
- Smoothies\*<sup>2</sup>
- Milk-based drinks e.g. milky decaffeinated\*<sup>3</sup> coffee
- Sports or 'electrolyte' drinks
- Coconut water

\*<sup>1</sup> Choose tap, filtered, bottled, still, sparkling, plain or flavoured – they're equally as hydrating; opt for low sugar options (<5g/100ml).

\*<sup>2</sup> Fruit juice and smoothies should be ~150ml as they're high in sugar and can cause looser stools in higher volumes. Choose lower fibre options if you have looser stools.

\*<sup>3</sup> If you routinely drink less than 3-4 cups of tea or coffee a day, these drinks can be hydrating; consuming more than 3-4 cups of these drinks a day can mean the caffeine over-stimulates the bladder and bowels causing you to lose more fluid.

There are a few small, short studies showing that consuming fruit and vegetables (juices and fresh) can decrease the acidity of urine. More alkaline urine has been linked to UTIs and stoma-pain for urostomy patients. As there is not robust clinical evidence to support such claims, healthcare professionals should not routinely recommend anyone to reduce fruit or vegetables (juiced or fresh) to help with stoma health – it's your choice if you want to try reducing them in your diet. General health advice for those with stomas is to have 5 portions of fruit or vegetables a day, but be mindful of your own fibre tolerance and reactions to fruit and vegetables juices. Some people may find they can only tolerate 1-3 portions of fruit and vegetables a day and they may

need to be peeled, de-pipped/stoned and well cooked; these people should liaise with their Doctor or Registered Dietitian and are likely to need a 'complete' or 'A-Z' daily multivitamin and mineral supplement.

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***What has been shown repeatedly in clinical research is that the most effective lifestyle change to decrease urology and urostomy related problems is to keep as hydrated as possible.***

# What counts as hydrating fluids?

Alcoholic drinks increase urination and can over-stimulate the bowels, therefore alcohol cannot count as one of your hydrating 6-8 cups of fluids a day. It's best to keep within the government's recommendations of 14 units a week, spread across 4 or more days and having 2 days a week alcohol-free. A unit of alcohol is 1 x 25ml spirit measure e.g. gin, whereas a standard glass of ~12% abv. wine or regular strength beer is ~2 units.

***This is what 14 units looks like:***



**6 pints of**  
4% beer



**6 (175ml)**  
**glasses of**  
13% wine



**14 (25ml)**  
**glasses of**  
40% spirits

***It's recommended that you check with your Doctor or Pharmacist whether your medications or immediate health may be affected before drinking alcohol.***

There is mixed research regarding the hydrating effects of fizzy, sugary drinks like cola/lemonade etc. and the research is not specific to those with stomas. We absorb fluid from our gut into our blood through osmosis, where water will move from the least concentrated fluid to the greatest concentration i.e. from our guts to our blood. Sugary drinks, including fruit juice or smoothies, are 'hypertonic' meaning that they have a higher osmolality (concentration) compared to our blood. Hypertonic fluids can be harder to absorb and can cause water to leave our blood and enter the gut, causing looser stools and loss of fluid and electrolytes. It's best to choose 'hypotonic' (less concentrated) or 'isotonic' fluids (a similar concentration to our blood) most of the day.

## Hypotonic/isotonic drinks list:

- Water
- Well-diluted squash or cordial
- Diluted fruit juice (~1/2 to 1/3 water vs. juice)
- Milky smoothies
- Milk-based drinks e.g. milky decaffeinated coffee
- Coconut water

You shouldn't need to choose sports or electrolyte drinks most of the day, but when it's hotter weather or after sweating you may need to drink more because of the electrolyte and fluid losses. Sports drinks labelled as 'electrolyte' or 'rehydrating' can be helpful, but be careful as they can sometimes contain lots of sweeteners which can cause looser stools. If you do choose to consume sports or electrolyte drinks, have ~500ml either during or after the heat/sweating, or throughout the day, and choose other hypotonic/isotonic drinks for the rest of that day.



# Hydrating foods



## Hydrating fruits and vegetables:

- Melon
- Apple\*<sup>1</sup>
- Grapefruit\*<sup>1</sup>
- Cucumber\*<sup>1</sup>
- Berries\*<sup>1</sup>
- Courgette\*<sup>1</sup>
- Bell peppers\*<sup>1</sup>
- Tomatoes\*<sup>1</sup>
- Cauliflower florets/ heads

## Hydrating fruits and vegetables tips:

- A portion of fruit is ~80g or an amount that fits comfortably in a curled-handful. Unless told otherwise, have up to 2 portions at a time to reduce consuming too much sugar.
- \*<sup>1</sup> With bowel stomas, take care of food with skins, pips, seeds or fibrous/tough textures as these can be more difficult to digest.

## Other hydrating foods:

- Cottage cheese
- Yogurt and other puddings
- Soups or broths
- Sauces or gravies\*<sup>2</sup>
- Ice lollies\*<sup>3</sup>
- Jellies\*<sup>4</sup>

## Hydrating food tips:

- \*<sup>2</sup> To add nutrition but decrease calories and salt, make your own sauces from lower-fat, plain yogurt and add your own flavouring e.g. garlic powder, tomato paste and dried herbs.
- \*<sup>3</sup> Eat shop-bought ice lollies in moderation as a treat food as they're high in sugar.
- Choose ice creams over ice lollies if you need help gaining weight.
- \*<sup>4</sup> Some jellies are high in sugar, others contain lots of sweeteners. Some people have gut sensitivities to sweeteners, everyone's tolerance is individual so see how you manage.

# Hydrating foods table

*Most people need  
6-8 cups or ~1.8-2.4L  
of fluid per day*

*Food or drink  
and measure*

*Approximate  
fluid provided  
in ml*

1 mostly-full pint glass	<b>550</b>
1 standard-sized bottle of water	<b>500</b>
1 can of drink	<b>330</b>
1 mostly-full mug	<b>300</b>
1 mostly-full tumbler	<b>250</b>
Tomato sauce portion e.g. with pasta (1 full mug)	<b>240</b>
½ pint measure	<b>225</b>
Medium bowl of soup (½ a can, ~200g)	<b>170</b>
Milk in a medium bowl of cereal	<b>150</b>
1 medium apple (~160g)	<b>140</b>
1 standard pot of custard or rice pudding (~150g)	<b>120</b>
1 standard-sized pot of yogurt (~125g),	<b>110</b>
1 standard pot of jelly (~125g)	
1 handful of cooked cauliflower florets or peeled courgette (~80g)	<b>75</b>
3 tbsp cottage cheese (~90g)	<b>72</b>
1 handful of berries, grapefruit or melon without rind (~80g)	<b>70</b>
Standard gravy portion (¼ of a mug, ~75g)	<b>65</b>
Cucumber piece (the length of your thumb, ~60g)	<b>57</b>
1 standard-sized ice lolly (~80g)	<b>55</b>
Standard cheese sauce portion (¼ of a mug, ~75g)	<b>50</b>
1 standard ice cube	<b>25</b>

# Hydrating swaps, for increasing hydration

## A meal plan example...

### Original low-irritant meal plan

2 slices of white toast with butter, a peeled apple, mug of tea.

Cereal bar

1 large white roll, cheddar cheese, 2 peeled satsumas, tumbler of water.

1 banana

Peeled roast potatoes, roast chicken, peeled and cooked parsnip and carrots. Tumbler of squash.  
Tinned peaches.

Total fluid: ~700ml

### Hydrating swaps

1 bowl of puffed rice cereal with **150ml milk**, a peeled apple, mug of tea.

Cereal bar, **pot of jelly and a tumbler of squash (with 3 ice cubes)**.

1 large white roll with **cottage cheese** and **peeled cucumber**, **1 handful of melon**, tumbler of water with **3 ice cubes**.

**1 medium pot of yogurt, tumbler of squash (with 3 ice cubes)**.

Mashed potato (**made with added milk**), roast chicken, peeled and cooked **courgette** and carrots, **gravy**. Tumbler of squash (**with 3 ice cubes**).  
Tinned peaches and a **home-made ice lolly**.

Total fluid: ~2000ml

# Salt tips



People who have difficulties maintaining their electrolyte levels, especially sodium/salt, will likely already know this from their care in hospital after their surgery. For an easy way to top up your sodium, you can add salt when cooking or at the table – add up to 1 level teaspoon per day (spread across meals) and only add it to your own food. Too much salt can be harmful to some people, especially children and older adults.

***For anyone with high blood pressure and a stoma, you may need different salt and hydration advice and it's best to check with your Doctor or Specialist Nurse.***

People with jejunostomies, ileostomies and possibly other bowel-stomas may find choosing saltier foods can help keep them more hydrated. Saltier foods are more likely to make you feel thirsty and encourage you to drink, the same can happen with spicy foods. When you drink with a salty food, the salt can also help you absorb the fluid.

## Salty foods/condiments:

- Cheese
- Crackers
- Salted popcorn
- Pre-made sauces or soups\*<sup>2</sup>
- Gravies
- Crisps\*<sup>1</sup>
- Savoury snack mixes\*<sup>1</sup>  
e.g. Bombay mix or pretzels
- Salted spreads e.g. 'salted' margarine/butter
- Processed foods e.g. sausages, battered/crumbed chicken and ready meals\*<sup>2</sup>

### Salty foods:

\*<sup>1</sup> Most people should choose lower calorie options e.g. 'puffed' or 'baked' crisps, 1 medium packet or 1 handful is a portion – aim for 1 or fewer portions a day.

\*<sup>2</sup> For general health, try not to solely rely on pre-made foods, aim to make most of your food from scratch if you can. If you have concerns, speak with a Registered Dietitian.

## Extra guidance

*Having a stoma takes adjustments to your normal routines, here are some easy tips to help you increase your hydration without too much fuss.*

### Maximising hydration tips:

Ensure your meals are good portions, spread evenly throughout the day and a third of each meal is a starchy-carbohydrate – this creates a good environment in the gut for water absorption.

Measuring out your fluid needs for the day into 1-2 large bottles – this makes it easier to keep track of your fluid intake.

For the summer, freeze your drink then sip it as it defrosts throughout the day.

You can make healthier and hydrating ice lollies from diluted squash, fruit juice or milky smoothies.

Carrying a bottle of drink with you – think of the saying “out of sight out of mind”.

Associate drinking with a frequent activity e.g. after going to the toilet, before making a call etc.

Include foods that have a higher water content e.g. yogurt, melon.

Have sauces with meals or puddings e.g. gravy or custard.

Add ice cubes to your drinks – 1 ice cube adds ~25ml of fluid.

For those with urostomies and most with colostomies and ileostomies (stoma output/loss <1500ml/day), drink with a meal to help you absorb the fluid better.

# Extra guidance

'High output stomas' have traditionally been classed as any bowel-stoma with outputs over 1500ml/day, it's this volume and over which has the most risk of causing dehydration and electrolyte imbalances. However, after 6-8 weeks of your surgery your stoma output will have begun to settle and within 6-12 months you will know what your average daily volume is. Any changes to your normal daily output where you are symptomatic can also be 'high output' and require extra intervention. The highly specialist advice for those with 'high output' stomas can seem counter-intuitive, especially compared to other hydration advice for ostomates. It's important to remember that every person is different and may have a different anatomy to other stoma patients or their gut may not have adapted as well to absorb fluid, however anyone passing larger than normal volumes of stool or urine could also be said to have 'high output stomas'.

## High-output stoma hydration tips:

- Drinking ~10-15 minutes before a meal or ~30-60 minutes after eating.
- Reducing the fibre and irritants in your meals and fluids (See Fittleworth's ostomate nutrition guide).
- Choosing hydrating foods - see hydrating foods section.
- Increasing your salt; choose saltier foods e.g. cheese, crackers or sauces and also adding salt to meals (while cooking or at the table).

**Your Doctor may advise you to keep to a 'fluid allowance'; this usually involves drinking up to 500ml-1500ml/day depending on your particular surgery and recovery.**

**You may also be told to include some rehydration drinks like Dioralyte® or St. Mark's solution as part of your fluids or instead of other drinks.**

# When further support is required

## Emergency Help

If someone with a stoma experiences any of the following, we recommend you call the NHS helpline on 111 or take them to your local Accident and Emergency department as soon as possible.

### Emergency symptoms:

- Significant decrease in amount of urine and darker colour
- Cramping, pain or swelling at the stoma site
- Nausea and vomiting
- A weak or rapid pulse
- Fits (seizures)
- Being very drowsy/unrousable

### Seeing a Registered Dietitian (RD)

RDs train for years to learn medical nutritional therapy, which is the science of tailoring nutrition for specific health concerns including stoma care. GPs and Specialist Stoma Nurses (SSNs) undergo some nutrition training and can offer “first-line” or immediate advice and support. If you have multiple dietary difficulties, including unintentional weight-loss, distressing ongoing stoma symptoms or other health conditions then it’s best to see an RD.

### NHS

Many hospitals have Dietitian outpatient clinics, some areas of the country have community Dietitian clinics at places including GP surgeries. NHS Dietitian teams usually accept referrals from:

- your GP
- your hospital Doctor
- hospital-based SSNs

Your healthcare professional may not automatically refer you to an RD and you may have to ask them to.

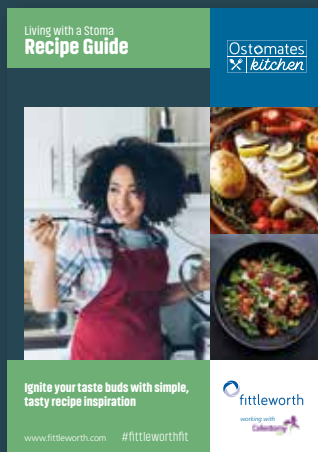
### Non-NHS

Some NHS referral processes for Dietitians can take weeks or months, you may want to seek a non-NHS RD. The British Dietetic Association has an online register you can use to find the contact details of RDs near you; prices and services vary so don’t be afraid to ask questions:

The Freelance Register of UK-based Registered Dietitians  
<https://freelancedietitians.org/>



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