Why are fluids important?
Water makes up more than half the weight of adults and children. Water has many important roles in the body such as helping to keep mucus thin, for saliva production to help with swallowing, in your stomach it helps digest food and move waste along your gut, it forms part of your blood, keeps your nose, mouth, skin and eyes moist and is needed for sweating to help cool the body down. Lack of fluid along with salt loss can lead to dehydration which can cause irritability, cramps, headaches, lethargy and fatigue and may also contribute to thicker sputum making airway clearance more difficult. Dehydration can also cause thicker secretions in the bowel and lead to blockages in the gut.

Why might fluid be needed?
Individuals with cystic fibrosis have increased sweat production, much higher than individuals without cystic fibrosis. Low salt levels in this case can affect the body’s control of thirst, where the person does not feel thirsty as they sweat, however they still become dehydrated.

- During exercise, the body cools itself down by sweating which causes salt and water losses therefore it is important to make you take enough salt and fluids to prevent dehydration.

- In hot weather we sweat more, and even more so for someone with cystic fibrosis therefore extra fluid should be taken throughout the day. It may also be useful to include salt containing drinks or salt supplements however this should be discussed with the cystic fibrosis care team.

- For people with cystic fibrosis related diabetes, good blood sugar control is important to prevent greater fluid losses associated with raised blood sugars. Inclusion of plenty of low or sugar free drinks would be important in this case.
How much should you drink?
The amount of fluid you need depends on your age, weight, activity level, the weather and your state of health. Relying on your sense of thirst as a guide to how much to drink is not a good indicator as by this time you may already be dehydrated.

The colour of your urine may help you know if you are getting enough fluids. Urine should be a very pale yellow and should not have a strong smell. Your dietitian or cystic fibrosis team can give you a guide as to how much fluid you need each day.

### PEE CHART

<table>
<thead>
<tr>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3</td>
<td>Urine should be the same colour as numbers 1, 2 and 3.</td>
</tr>
<tr>
<td>4, 5</td>
<td>Colours 4 and 5 suggest dehydration.</td>
</tr>
<tr>
<td>6, 7, 8</td>
<td>Colours 6, 7 and 8 suggest severe dehydration.</td>
</tr>
</tbody>
</table>


What should you drink?
Over the day a range of drinks such as water, milk, fruit juices, diluted cordials, milkshakes, soft drinks can be included. Caffeine containing drinks such as tea and coffee are not suitable for children nor are they ideal for hydration as they may cause increased urine excretion. Isotonic sports drinks can be useful, such as during exercise but they are not always necessary, check with your dietitian as to whether they would be appropriate. Nutritious fluids like milk also help prevent dehydration and help with the extra calories that most people with cystic fibrosis need.

Remember, some drinks have lots of sugar in them so good dental hygiene in very important. If you have been advised to avoid sugary drinks due to concerns about your blood sugars then you should choose from the other options available.
If you have been advised to take an oral nutritional supplement to help achieve or maintain a healthier body weight, these too will contribute to your fluid intake.

Can I drink too much?
If you drink more fluids than your body needs, excess can be excreted by the body in urine. If you are trying to increase your body weight or if you have a small appetite, you should regularly prioritise drinks that are nourishing over water and avoid drinking before meals in case it reduces your appetite for food. If you are participating in strenuous or prolonged physical activity it is important not to drink excess water without including a source of salt either from foods or drinks containing salt.

Tips to help ensure a good fluid intake!
- Always have a drink bottle with you and drink regularly throughout the day, don’t wait until you feel thirsty to drink.
- Increase your usual fluid intake in hot weather or when you have a temperature.
- Drink extra fluids before, during and after increased activity or playing sports.
- If you increase your fibre intake, ensure you are drinking plenty in order to help promote regular bowel motions and prevent constipation.
- Most of the water we take comes through the various drinks included in the diet however many foods also provide water. Foods which have higher water content include: soups, melons, cucumbers, milkshakes, yogurts, oranges and jelly therefore will contribute fluid to your diet.

Why might extra salt be needed?
People with cystic fibrosis often sweat more than do other people therefore this puts them at an increased risk of dehydration and salt depletion in hot weather or during times of increased activity or illness. Due to the higher salt content of the sweat in people with cystic fibrosis, there is increased salt loss which means the body's thirst mechanism does not trigger adequately, so the person does not feel thirsty as they lose fluid. To avoid dehydration, extra fluids should be taken as a rule rather than waiting to feel thirsty and it may be advised to include salt containing drinks such as some sports drinks.
Updated by members of the Cystic Fibrosis Interest Group, July 2016

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