

# CF Health Matters

## Preventing Dehydration in CF

### Drink for Health!

- Body fluid is lost in sweat, urine, digestive processes, and breathing;
- People with Cystic Fibrosis need more fluid because they have more losses of fluid;
- Physical activity or hard physical work increases fluid losses and fluid needs;
- Weather also increases fluid requirements.

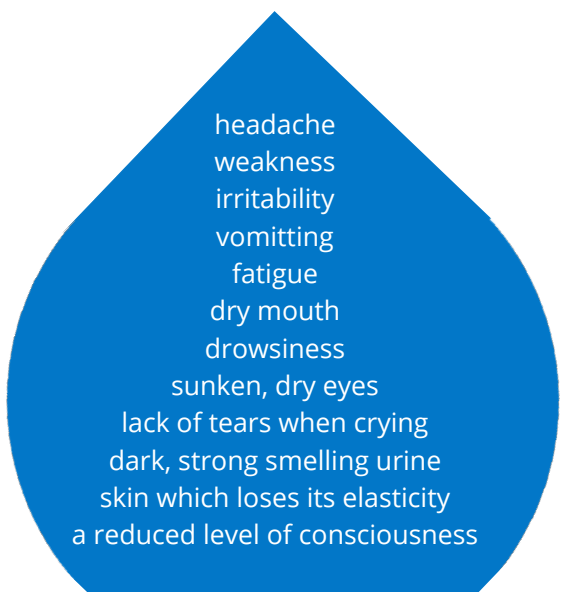


### What is Dehydration?

Dehydration is the excessive loss of body fluid and salt, both of which are required for health and normal body functioning. Dehydration may result from acute illness (vomiting, diarrhea or fever), hot weather, strenuous exercise or vigorous play, in combination with not drinking enough fluid or ingesting enough salt to replace losses.

### What are the Signs and Symptoms of Dehydration?

The signs and symptoms of dehydration vary with its severity. Common signs may include:



Dehydration can be dangerous. If these symptoms are present, contact your CF caregivers or go immediately to a nearby emergency room.

### Why do People With CF Become Dehydrated?

#### Lose more sodium

When a person with CF is active in sports or recreational activity, or when they are ill or the weather is excessively hot, they lose more sodium (salt) from their body than the average person.

#### Feel less thirsty

The thirst sensation in people with CF does not turn on as quickly as for other people, or may not be triggered at all. Normally, when people sweat, the salt levels climb in the blood and this high salt in the blood triggers thirst. When too much salt is lost, like in CF, the person doesn't feel thirsty even after a lot of body fluid has been lost.

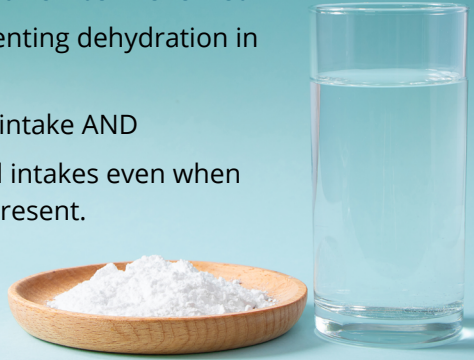
#### Voluntarily drink less

Research shows that youth with CF drink 50% less than healthy counterparts when given access to unlimited water.

### How can Dehydration be Prevented?

The keys to preventing dehydration in CF include:

- Increase salt intake AND
- Increase fluid intakes even when thirst is not present.



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### I Think I'm Dehydrated - What Should I Do?

#### Don't wait, rehydrate!!

Dehydration is best managed by prevention. Should the signs of the dehydration be mild, drink plenty of fluids and eat a salty snack such as potato chips or nuts. Continue replacing the fluids and salts well after the sweating or other losses have stopped.

If the signs or symptoms of the dehydration are more worrisome, go to the emergency room of a nearby hospital. Intravenous fluids and electrolytes (electrolytes = salts) may be required.

### Why is Chocolate Milk Perfect After Exercise?

- Chocolate milk is a fluid made up of almost 85% water so it helps replace some of the fluids lost during exercise;
- Chocolate milk provides simple sugars to help replenish the energy stores used during exercise;
- Chocolate milk has high quality proteins to build and repair muscles after exercise;
- Chocolate milk is rich in minerals to replace some of those lost in exercise;
- Chocolate milk tastes good and is a good calorie source.

“ Studies have shown that children with CF drink half as much as other children during the same exposure to hot weather or exercise and dehydrate three times faster!



### Why Sports Drinks are not Enough for People With CF

Science has shown that people with CF may need as much as 50 mmol/L of salt to stay well hydrated under high risk conditions (heat waves, strenuous exercise, etc).

The table below shows that sports drinks have less than ¼ this amount of salt. They are even lower in salt than other common beverages.

Beverage	Salt content
Tomato juice	118 mmol/L
Milk	23 mmol/L
Gatorade®	19 mmol/L
Powerade®	10 mmol/L
Allsport®	10 mmol/L

One option is to add additional salt to your sports drinks. If you add 1/8th of a teaspoon of salt to 350 ml of sports drink, you will better meet your salt needs during activity.

### What About Endurance Athletes With CF?

If you are involved in endurance exercise like marathons and triathlons, you will need special help to stay hydrated and replace your salt losses.

Eleven time ironman champion, Lisa Bentley's response to the question: "So what has been the toughest part about competing [in the ironman] with CF?" Lisa: "The biggest part was learning how to deal with sodium loss, because people with CF deal with more sodium loss than others."

Salt pills are commercially available and are used by some athletes, including Lisa Bentley, with CF. Speak to your CF team for more information.

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### How Else can I Increase Fluid and Salt Intake?

- Encourage bottled water to be carried and drank throughout the day even if the person is not thirsty;
- Liberally add salt to foods to replace ongoing salt losses;
- Eat salty snacks during exercise;
- Tomato juice is naturally very salty and may be chosen during times of high salt losses.



### What Snacks are High in Salt?

The following foods are all easy to carry with you for high salt snacking on the go:

- Pickles
- Olives
- Nuts
- Cheese
- Chips
- Crackers
- Pretzels

Pretzels have the advantage that they are relatively low in fat, so you could get away with eating a handful or two without taking enzymes when engaged in an activity where it isn't always convenient to take your enzymes.



### Key Points on Dehydration

- People with CF do not always feel thirsty even when their bodies need more fluid;
- Routinely increase fluid and salt intake to prevent dehydration;
- Consider “special” sports drinks plus salty snacks when vigorously exercising or during a heat wave;
- Dehydration can be dangerous – don't hesitate. Call your CF team or go to your local ER if you suspect dehydration.



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This information is published by CF Canada on behalf of cystic fibrosis dietitians across Canada.