



Remote
Health

Course Materials

Fluid intake

Water - our elixir of life



Contents

- **Water**
Why it is essential
- **Dehydration**
Causes, symptoms and treatment
- **Tap water or bottled water?**
The comparison
- **Sparkling water or still water?**
How does sparkling water work and why is still water better?
- **Curative water**
What is curative about it?
- **Soft drinks und alcohol**
Recommendations
- **Drinking recommendations**
And tips for drinking more

Water ⁽¹⁾

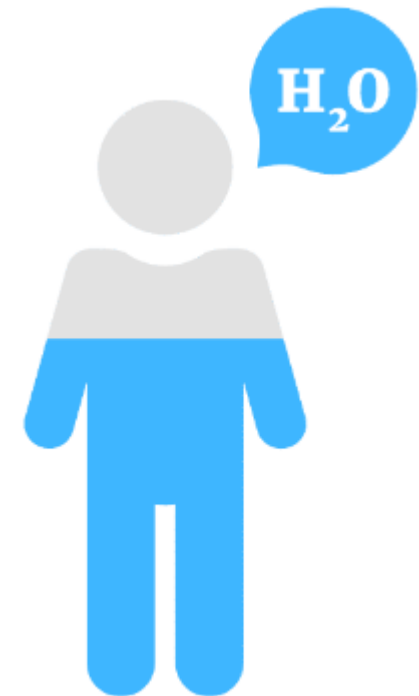
Why it is essential



Since our body consists of more than 50% water, it is especially important to drink enough.

Water fulfils the following functions:

- Energy for our muscles
- Purification of toxins and bacteria
- Strengthening of the immune system
- Enhancement of concentration
- Promotion of regular bowel movements
- Keeping body temperature constant
- Maintaining fluid balance



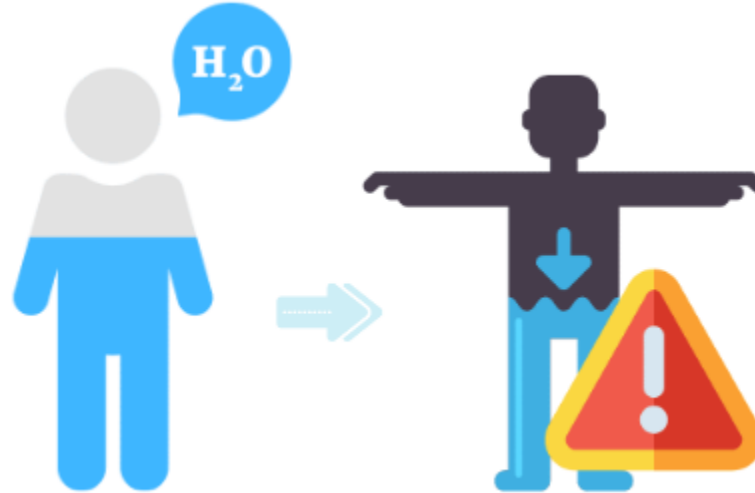
Dehydration ⁽³⁾

Causes, symptoms and treatment



Dehydration happens when the body dries out, i.e. the body lacks fluid to be able to carry out its functions.

Severe dehydration is called exsiccosis.



Causes:

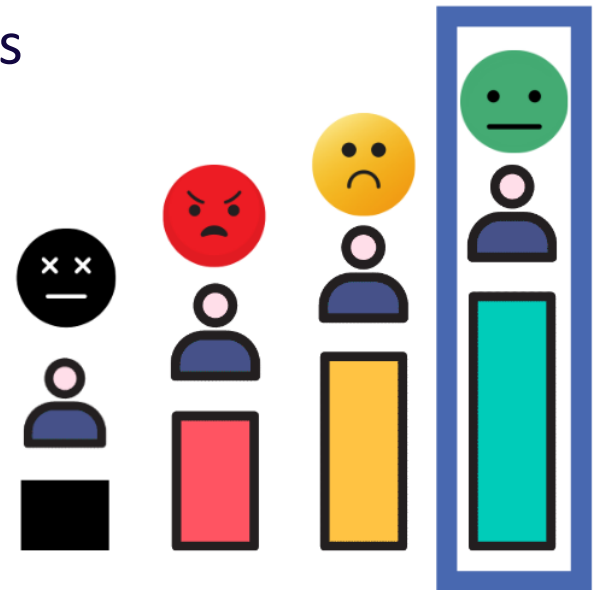
- Not drinking enough
- Diarrhoea or vomiting
- Blood loss
- Burns
- Acute renal failure
- Diabetic coma
- Diabetes insipidus
- Use of diuretics



Symptoms:

Symptoms of mild dehydration (3-5% fluid loss of body weight):

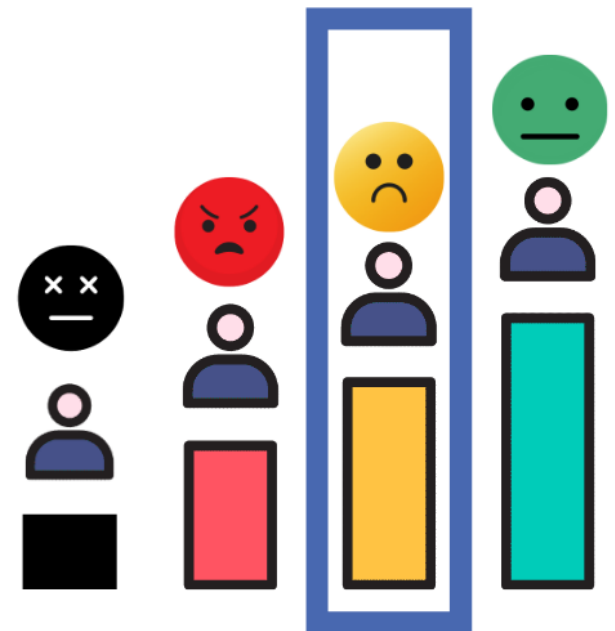
- Thirst
- Slightly dry skin and mucous membranes
- Concentrated, dark yellow urine



Symptoms:

Symptoms of moderate dehydration (6-8 % fluid loss of body weight):

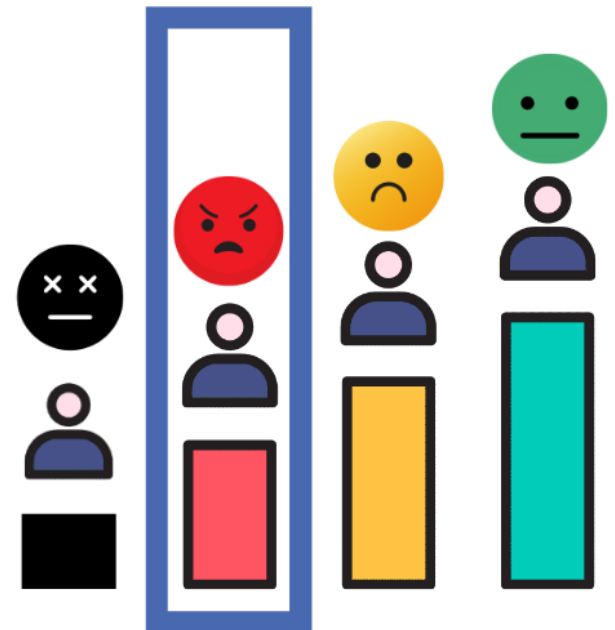
- Sunken eyes
- Very dry skin and mucous membranes
- Greatly reduced urination
- Palpitations



Symptoms:

Symptoms of severe dehydration (9-12% fluid loss of body weight):

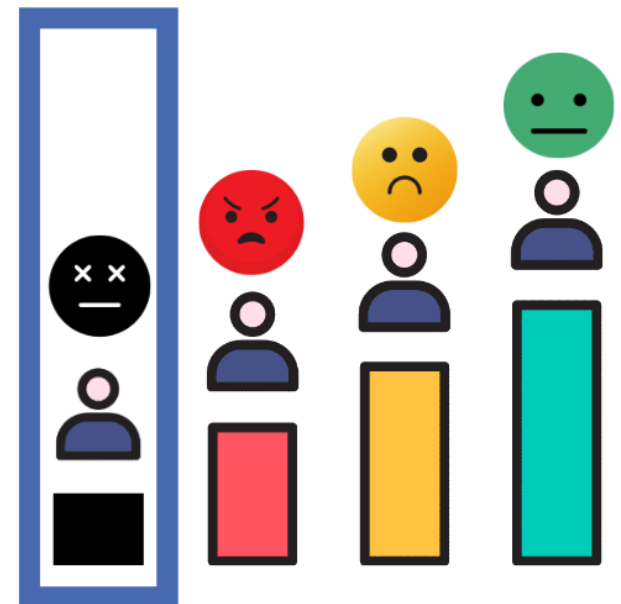
- Low blood pressure
- Standing skin folds: If you form a skin fold with two fingers (e.g. on the back of your hand) and then release it, the fold does not smooth out immediately, but only after a few seconds



Symptoms:

Symptoms of very severe dehydration (12-15% fluid loss of body weight):

- Shock
- Circulatory weakness
- Disturbance of consciousness up to coma



Treatment:

For mild dehydration: drink small amounts of fluid several times. It is important not to drink too much at once to avoid fluid buildup in the lungs or swelling of the brain.

Suitable fluids are:

- Water
- Unsweetened fruit/herbal tea
- Slightly salty broth



Treatment:

Please consult a doctor immediately for the other stages of dehydration!



Tap water or bottled mineral water? ⁽⁴⁾

A comparison



Usually tap water is taken from groundwater near the surface or from rivers and dams, which has been treated to meet drinking water regulations. In most parts of the EU tap water is drinkable.



Mineral water, on the other hand, is water from deep and sheltered springs and requires little treatment.

Example from Germany	Tap water	Mineral water	Conclusion
Purity	Strict drinking water regulations ensure careful treatment of the water.	Mineral water regulations are less strict, but springs are better protected because they are deeper.	Both waters are under strict control and are usually clean.
Minerals	It contains few minerals that do not contribute to the supply.	Waters vary in mineral content. Quite often they are even low in minerals.	Some mineral water contains more minerals than tap water.
Cost	Approx. 0.2 cents per litre	Approx. 13 cents per litre	Tap water is significantly cheaper.
Climate-friendliness	No packaging and no transport necessary.	Climate impact approx. 600 times higher than tap water.	Tap water is less harmful to the climate.

Sparkling water or still water? (5)

How sparkling water works and why still water is better



Sparkling water

How does sparkling water work?

This type of water comes from deep volcanic springs made of rock containing carbon dioxide, because carbonic acid forms naturally when carbon dioxide meets water.

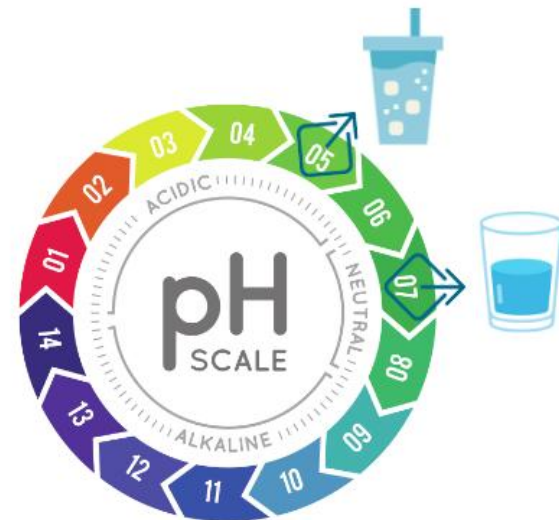
Carbon dioxide can also be artificially added to turn still water into sparkling water.



Sparkling water or still water

While still water has a neutral pH value of 7, sparkling water has an acidic value of 5.3.

Sparkling water therefore has a poorer reputation, but comes with the advantage that its slightly acidic environment prevents the growth of germs.



Drinking still water is recommended for people with a sensitive stomach, especially those prone to heartburn.

Otherwise, the choice of water is entirely a matter of personal preference.



Curative water ⁽⁶⁾

What is curative about it?



Curative water is water from deep springs that has a preventive, soothing or even curative effect.



In Germany for example, it is only approved by the Federal Institute for Drugs and Medical Devices (Bundesinstitut für Arzneimittel und Medizinprodukte) if it can be scientifically proven that it has a health effect.

Curative waters contain natural minerals, trace elements and other active substances.

They have no side effects and can be drunk like regular water, even in large quantities.



Soft drinks und alcohol ^(7,8)

Recommendations



Soft drinks (7)

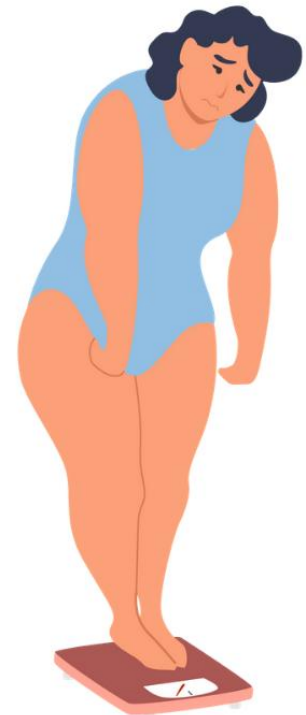


Soft drinks and fruit juices are characterised by a high sugar and acid content.

In addition, many soft drinks contain increased amounts of caffeine.

Consequences of frequent consumption of sugary drinks:

- Increases the risk of weight gain and can thus lead to obesity (severe overweight).
- Increases the risk of Type 2 diabetes mellitus
- Increases the risk of tooth decay
- Increases the risk of cardiovascular diseases



Consumption recommendation:

Soft drink consumption should be an exception, as these drinks offer little or no benefit to the body.

Instead of soft drinks, drink water mixed with fresh fruit or unsweetened tea, which is more refreshing than sugary drinks.



Alcohol (8)

Alcohol is an intoxicating drink which can be found in all forms, colours and flavours.



Consequences of (immoderate) alcohol consumption:

- Reduced ability to concentrate and react
- Impairment of perception and judgment
- Aggression and violence
- Diseases of the liver, pancreas, heart, muscles and the peripheral and central nervous system
- Cancers
- Addiction
- Mental health problems, such as mood swings, anxiety, depression and suicidal thoughts



Consumption recommendation:

Alcohol should not be consumed at all or rarely and in small amounts.

The risk of illness is increased if a healthy woman consumes more than 12g/day and a healthy man more than 24g/day. (this refers to pure alcohol.)

Alcohol should be avoided 2 to 3 days a week.



For example, 20g of pure alcohol corresponds to:

- 0.5l beer
- 250ml wine
- 6cl brandy



Drinking recommendation ⁽²⁾

And tips for drinking more



The recommended drinking amount is about 1.5 litres per day.

It should be noted that this is a guideline, i.e. more fluid is needed on hot days or during and after exercise.

Of course, it is best to drink water.
However, 3 to 4 cups of coffee or black tea a day are still okay.



It is important that these 1.5 litres are not consumed all at once, but spread out over the day.



And please do this even if you don't feel thirsty, because a feeling of thirst only arises when you lose 0.5% of your body weight in fluids.

Tips for drinking more water:

- Set an alarm clock or download a reminder app on your phone
- Always have (chilled) water at hand
- Write times on your bottle when the marked amount of water must be drunk
- Flavour your water with slices of cucumber or lemon or drink unsweetened tea
- Drink a large glass of water first thing in the morning



Sources:

1. Vieth, S. (2018, July 21). 10 gute Gründe: Deshalb solltest du mehr Wasser trinken. <https://doli-bottles.com/blogs/inspiration/mehr-wasser-trinken>
2. Verbraucherzentrale. Redaktion. (2021, December 21). Wie viel sollte man am Tag trinken? <https://www.verbraucherzentrale.de/wissen/lebensmittel/gesund-ernaehren/wie-viel-sollte-man-am-tag-trinken-24202>
3. Feichter, M., Schrör, S. (2019, March 07). Dehydration. <https://www.netdoktor.de/symptome/dehydration/>
4. Jeschke, A. (2020, July 04). Leitungswasser trinken? Besser als Mineralwasser aus Flaschen! Das sind die Gründe. https://www.oekotest.de/essen-trinken/Leitungswasser-trinken-Besser-als-Mineralwasser-aus-Flaschen-Das-sind-die-Gruende_11316_1.html
5. Verbraucherfenster Hessen. Redaktion. (2021, May). Was ist besser: Sprudelwasser oder stilles Wasser? <https://verbraucherfenster.hessen.de/gesundheit/lebensmittel/getranke/was-ist-besser-sprudelwasser-oder-stilles-wasser>
6. Deutsche Heilbrunnen. (2022, July 19). Häufig gestellte Fragen zum Thema Heilwasser. <https://www.heilwasser.com/heilwasser/>
7. von Philipsborn, P. (2019, June 26). Softdrinks: Flüssige Süßigkeiten und was gegen sie hilft. <https://wissenwaswirkt.org/softdrinks-fluessige-suessigkeiten-und-was-gegen-sie-hilft>
8. DHS. Deutsche Hauptstelle für Suchtfragen. (2022, July 19). Alkohol. <https://www.dhs.de/suechte/alkohol>



©Remote Health EU, 2022, sponsored by Erasmus+

Author: Lana Schneider, student of Health Science,
Technical University of Munich

Design and translation: M.A. Lulu Jiang, Joy of Learning –
Gesundheitsbildung, Lerntherapie & Entwicklungsförderung München e.V.

Editorial: Sonja Sammer, Joy of Learning –
Gesundheitsbildung, Lerntherapie & Entwicklungsförderung München e.V.

Illustrations with permissions of Canva

www.remote-health.eu