

NEWS RELEASE

Otsuka Pharmaceutical Factory, Inc.

Otsuka Holdings Co., Ltd.

June 16, 2022

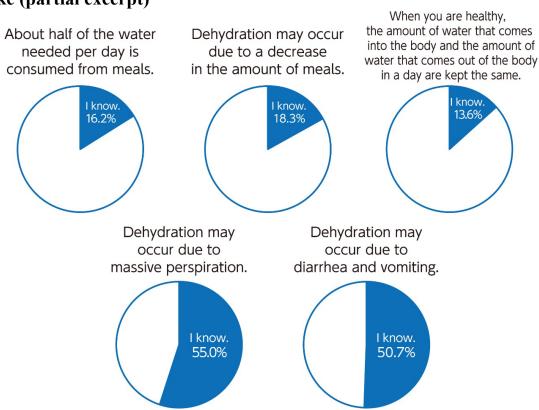
Otsuka Pharmaceutical Factory surveys the actual status regarding perceptions of water in the body (body fluid), dehydration, and heatstroke. Only about 18% of people are aware of the relationship between reduced food intake and dehydration.

Otsuka Pharmaceutical Factory, Inc. (Head Office: Naruto, Tokushima, Japan; President and Representative Director: Shinichi Ogasawara) conducted a survey of 1,030 people between the ages of 20 and 69 regarding perceptions of water in the body (body fluid), dehydration, and heatstroke.

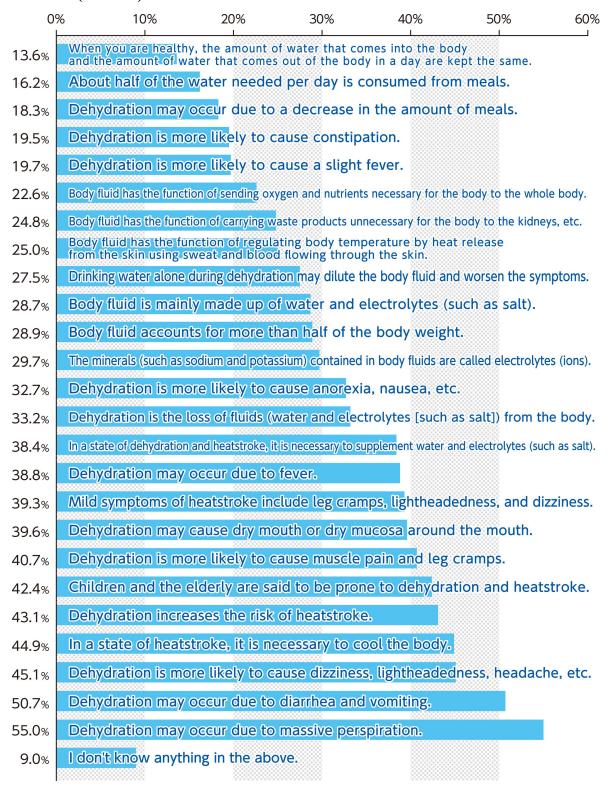
As a result, we found that while the majority of people were aware that a large amount of perspiration, diarrhea, and vomiting were related to dehydration, less than half were aware of the other items.

In particular, only about 16% and 18% of the respondents were aware that "about half of the water needed per day is consumed from meals" and "dehydration may occur due to a decrease in the amount of meals," respectively. It was found that the importance of "hydration from meals (eating water)" in measures against dehydration was little known.

Percentage of those who answered "I know" to the presentation of items related to water in the body (body fluid) or the causes or symptoms of dehydration and heatstroke (partial excerpt)



Percentage of those who answered "I know" to the presentation of items related to water in the body (body fluid) or the causes or symptoms of dehydration and heatstroke (overall)



Summary of Survey

Survey Contractor: Macromill, Inc.

Survey Target: Macromill's panelists; 1,030 men and women between the ages of 20 and 69 (103 valid

responses for each sex/age group, random extraction)

Survey Area: All over Japan

Survey Period: January 27 (Thursday) - January 28 (Friday), 2022

Survey Method: Internet Research

[Reference Report]

Hideharu Tanaka, MD, PhD, Professor, Graduate School of Emergency Medical System, Kokushikan

University

In order to prevent dehydration and heatstroke, let's reaffirm the importance of hydration from meals "Eating Water" this summer.

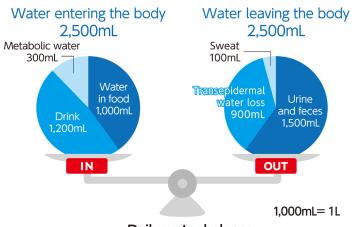
Reaffirm the importance of water in the body (body fluid).

More than half of our weight is made up of water. In adult men, about 60% of their weight is water. This water is called "body fluid" and is mainly made up of water and electrolytes (such as salt). Body fluid plays an important role in keeping our body normal by regulating body temperature, carrying the nutrients and oxygen needed for the body, and carrying out waste products from the body.

We run out of more than 600 mL of water in the body per day, if the amount of meals is reduced by half.

Hydration is indispensable to prevent dehydration and heatstroke. Our body is adjusted so that the amount of "water coming into the body" and the amount of "water coming out of the body" are the same every day. For example, if you are an adult man who weighs 60 kg, it is said that you need 2,500 mL of water per day even if you do not sweat too much. The water that comes into the body includes not only the water taken from drink, but also the water taken from food and the water produced when the nutrients taken are decomposed in the body (metabolic water). It is said that we take about half of the water we need per day from the food we eat, and thus eating well leads to measures against dehydration. Especially when you wake up, you feel dehydrated because of transepidermal water loss

(loss of water from the skin and exhalation) during bed time. Taking enough drink and breakfast is very important to prevent dehydration. Keep in mind to have three meals a day, especially to have breakfast. If the amount of meals is reduced by half due to a decline in appetite or other factors, you will suffer from a water shortage of more than 600 mL per day and a water shortage of more than 400 mL if you just skip one meal. In such cases, try to drink (water and electrolytes [such as salt]) more than usual.



Daily water balance (for a person weighing 60 kg as the reference weight)

Created by European Food Safety Authority, EFSA Journal 2010; 8(3):1459

What is dehydration?

Poor physical condition caused by a decrease in body fluid is called dehydration. In this state, the body is deficient not only in water but also in electrolytes (such as salt). Dehydration can be caused by a variety of factors, including "diarrhea, vomiting, and fever associated with infectious enteritis or the common cold," "insufficient diet and water intake," and "profuse perspiration." Dehydration is known to cause a variety of symptoms, including dizziness, lightheadedness, headache, loss of appetite, and leg cramps. Severe dehydration can be life-threatening. People who have no appetite may already be dehydrated. Dehydration also weakens the ability to regulate body temperature and increases the risk of heatstroke which can increase body temperature and cause sickness in hot environments. In the hot season ahead, let's keep in mind to drink (water and electrolytes [such as salt]) more than usual. Children and the elderly are said to be particularly prone to dehydration, so let's keep an eye on those around you.

In this way, water (water and electrolytes [such as salt.]) plays a very important role in our bodies. However, this survey revealed that the importance of the water intake from the diet or "Eating water" was not very well known. Try to eat three meals a day and drink the water you need in a day with a good diet and hydration.

Points for measures against dehydration

Try to stay hydrated. Keep in mind that you are already dehydrated, especially when you wake up, and hydrate yourself.

Try to eat three well-balanced meals a day. Be sure to eat breakfast in particular.

When you are unavoidably unable to have a meal, try to drink (water and electrolytes [such as salt]) more than usual, considering not only the lack of nutrients but also the lack of water.

As a pharmaceutical company specializing in clinical nutrition, Otsuka Pharmaceutical Factory is working to develop products and provide information on the theme of "dehydration" and is working to disseminate correct knowledge about dehydration, heatstroke, and oral rehydration therapy, which is one of the options for rehydration of water and electrolytes. We aim to eliminate accidents and emergency transportation due to dehydration and heatstroke. We will continue to disseminate information that will help people notice dehydration that is hidden in their lives.

Company Profile

Otsuka Pharmaceutical Factory, Inc.

Established : October 7, 1969 (founded September 1, 1921)

Capital : 80 million yen

Representative : Shinichi Ogasawara, President and Representative Director

Head Office : 115 Kuguhara, Tateiwa, Muya-cho, Naruto, Tokushima 772-8601, Japan

Employees : 2,266 (as of December 31, 2021)

Business Description : Manufacture, sale, import and export of clinical nutrition products and other

pharmaceutical products, medical devices, functional foods, etc.

URL : https://www.otsukakj.jp/en/