## Hydration and nutrition, indispensable for curing COVID-19

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- Coronavirus wears down the body causing dehydration and mineral deficiency.
- Consumption of serum with electrolytes helps replenish.
- Anorexia can be triggered by gastrointestinal symptoms, specialists recommend increasing the consumption of good fats by the double.

The coronavirus can be spotted through various symptoms, the most common ones are fever, dry cough and tiredness, but there are also those people who experience loss of smell, taste and gastrointestinal symptoms such as nausea, diarrhea and anorexia which may not be that severe, but they do require attention and management to ensure adequate recovery.

COVID-19 can last from 7 to 10 days. During this period the patient may show fever and in many occasions weight loss derived not only from lack of appetite but also from loss of muscle mass. Fever is the immune system natural response and it is a clear sign that an external agent is being fought, meaning a risk for our body.

When the body exceeds 37.5 degrees Celsius, it loses 1 to 3 milliliters of water per every kilogram of weight an hour. Besides that, 300 to 400 mL a day are naturally lost when breathing.

When the number of breaths increases above 20 per minute due to a respiratory infection, there is a greater loss of water commonly known as "insensible loss" referring to both, the fluid the body loses due to evaporation from body heat, and the exchange of oxygen and carbon dioxide during respiration.

Taking this into account, a person who reaches a 38 Celsius degree fever for 3 hours, and is breathing more than 20 times per minute will lose approximately 150 to 200 milliliters more than usual. In fact, he will lose from half a liter to one and a half liters more per day. Dehydration in COVID-19 arises from a combination of insensitive losses to which diarrhea and a low water and food intake can be added due to the presence of nausea and general malaise.

The fluid lost during a fever caused by coronavirus or dengue, either through sweat, urine, diarrhea or vomiting, is also accompanied by minerals vital to recovery, especially potassium, sodium and chlorine. This is why it is recommended to consume rehydrating serums that contain electrolytes and glucose. Glucose is a natural transporter of sodium and potassium in the body, so in the case of diarrhea it helps the absorption of these minerals

Regarding this matter, Dr. Irma Luisa Ceja Martinez, internal medicine specialist physician and PiSA® Group Endocrinology and Nutrition Medical Manager, explained that "most of the patients, - approximately 80% -, with COVID-19 will have minor symptoms and will be able to recover from home.

They just need to take two important aspects into account to get out of the disease: hydration and nutrition".

"Fighting an infection is a stressful process for the human body as the metabolic response increases and a large amount of fluids, including sodium, are lost through sweating caused by fever. If on top of that, we add gastrointestinal symptoms such as vomiting and diarrhea, there will also be a significant loss of potassium," said the specialist physician, member of the Mexican College of Internal Medicine (CMIM).

Ceja Martinez said there is no scientifically supported medicine that cures COVID-19 so far. The current treatments are for the management of symptoms and complications, that is why the supporting treatment still consists of both paracetamol and an adequate nutrition and hydration. The consumption of rehydrating serums with electrolytes and glucose, such as "Vida Suero Oral", distributed free of charge in the National Health System (SNS) or other medical grade serums endorsed by the health authority, formulations approved by the World Health Organization (WHO), which can be purchased in drug stores is recommended.

On the other hand, the Internal Medicine specialist mentioned that it is common for patients with COVID-19 to present anorexia (loss of appetite) and abdominal discomfort, so one of the indications is to drink small sips of liquids - either rehydration serum or homemade serum prepared with natural orange juice, water and salt - every fifteen minutes at least, even if you are not thirsty.

Regarding food, it is a good idea to increase the caloric intake and to eat even if you are not hungry. It is recommended to double or triple the consumption of good fats such as avocado, olive oil and nuts, and it is also advisable to increase the amount of proteins ingested, making sure these come from a good source such as: meat, fish, dairy products, etc.

"It is common for patients to develop anorexia during the time the disease lasts. COVID-19 can also cause vomiting or nausea, and trigger a gastritis condition that will complicate the patient's state of hydration, so the consumption of drinks with electrolytes becomes indispensable if you are not getting fed. You can take small sips of fruit smoothies, protein, and add avocado and nuts or almonds for a healthy fat balance," said the PiSA® Group manager.

Finally, the also Governor of the American College of Physicians (ACP), Mexico Chapter, Dr. Irma Luisa Ceja Martinez, called on patients to avoid the consumption of sweet foods and beverages with little nutritional value while being infected with COVID-19, as these cause greater dehydration resulting in a longer recovery period.