

The nutrient water

It is widely accepted that humans, and most mammals, can live much longer without food than without water. H₂O is the body's principal chemical component, comprising, on average, 60 percent of body weight. Yet there is sparse information to support an official RDA or RDI (Recommended Daily Allowance and Required Daily Intake, respectively) for water as a nutrient. Nevertheless, the Institute of Medicine advises that men consume 3 L, and women 2.2 L, of total beverages per day, without specifying a minimum daily water intake.

The Replacement Approach

Some nutritionists have applied scientific rigour to determine an RDA/RDI for H₂O. By comparing H₂O loss in urine, feces, breath and perspiration, to H₂O intake in food and beverages, the Mayo Clinic has estimated an RDI of 2 litres liquid per day, per adult:

"The average urine output for adults is about 1.5 liters (6.3 cups) a day. You lose close to an additional liter of water a day through breathing, sweating and bowel movements. Food usually accounts for 20 percent of your total fluid intake, so if you consume 2 liters of water or other beverages a day (a little more than 8 cups) along with your normal diet, you will typically replace the lost fluids."

Disproportionate Supply

Most Canadian and American governments are concerned more with water quality than water quantity. Edicts pertain to issues such as fluoridation, chlorination, municipal water treatment systems, the safety of residential carbon filters and purity claims on bottled water. In Europe, potable water is in short supply. Water rationing, and cost, in continental EU and Great Britain are well-known. One rarely sees a residential automated lawn sprinkler; one would never see one in operation during the early morning following a nightly rainfall, as appears in tony NA neighbourhoods. EU citizens scrutinize the monthly water bill, a high-cost utility of necessary yet controllable consumption.

The Search for Water

Drilling for water was once the purview of faith-based missionaries, as they discovered underground sources of water in remote Asian and African villages. Today, in populated areas of the EU, a concerted and scientific pursuit for new sources of potable, clean water has become a major business for trained geologists, or "water engineers", hired by municipalities and private citizens alike. People facing a constant water shortage have learned and adapted - some intuitively, some in a calculated manner - to equate a theoretical "Daily Allowance" to a subjectively determined "Required Daily Intake", to fulfill all water-based aspects of their daily living.

Reducing Food-related Water Use

Many citizens fortunate enough to live in a land of plenty have taken heed and changed lifestyle habits to reduce total water use. Most suggestions escape the food industry. However, a group of concerned neighbours recently convened a town-hall meeting, in Toronto, Canada, and, among other suggestions, proposed a few methods through which food and beverage preparation, consumption and selection may be tailored to reduce food-related water usage:

- Demand that the amount of water used to process a food be declared on label (they know that the food processing sector is a heavy user);
- Use a dishwasher, which results in less water usage than hand-washing dishes;
- Collect soiled household water in a bucket; use it to trigger the next flush of the toilet;
- Drink beer, not wine. It takes 3 to 4 times more water to make the latter than the former. (Not that beer drinkers need any encouragement). **FF**

Some Web sites

<http://www.mayoclinic.com/health/water/NU00283>

<http://waterwiseeducation.org/mod/resource/view.php?id=155>

<http://www.geltsdale.co.uk/>

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