

# WUT TO DO ABOUT DEHYDRATION



**S**taying hydrated is easy enough for most people: keep fluids handy, regularly replenish them, and boost intake during periods of intense activity. But there is no scientific consensus for how - or even when - to best assess the hydration status of athletes.

There are many measurements available, some more complex than others. Two in particular are widely regarded as the “gold standard” of assessments. The first method is **Total Body Water**. By far the most accurate, this entails measuring the dilution of trace amounts of a specific isotope - deuterium oxide - in a sample of blood or saliva, and is precise enough to measure the smallest changes in body fluids.

The other is **Plasma Osmolality**. Simply put, sweat removes more water from body fluids than osmotically active solutes, like sodium and chloride, which gradually build up in blood plasma during exercise. The increase of these solutes is proportional to the decrease in total body water, and this can be measured to determine hydration.

While both methods are highly accurate, they’re also costly and require analytical expertise, making them impractical during day-to-day training or competition. In most cases, however, they’re not necessary. According to research by the Gatorade Sports Science Institute, in most athletic settings, determining hydration can be easily achieved by monitoring three markers known as “**WUT**”.

**W** – **Weight**. Athletes should maintain a stable, day-to-day body weight when measured first thing in the morning. A one-day loss in excess of one per cent may indicate dehydration.

**U** – **Urine**. It’s normal to produce more urine when body water is high, and less when it’s lower. So watch for reduced daily urine frequency and darkening of urine colour (a sign of lower volumes) in the first urination of the morning.

**T** – **Thirst**. The absence of thirst does not indicate absence of hydration, but thirst is a definite indicator of dehydration.

Here’s a simple rule: When two or more WUT markers are present, it is likely that you are dehydrated. If all three are present, dehydration is very likely.

*Adapted from Gatorade Sports Science Institute: [www.gssiweb.org](http://www.gssiweb.org)*

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