

Electrolytes & Hydration

Why water alone doesn't always rehydrate you

Hydration isn't just about how much water you drink — it's about balance. Electrolytes are the minerals that let your body actually use that water: moving it in and out of cells, firing nerve signals, and letting muscles contract. Without them, water passes through without doing its job.

01

WHAT ELECTROLYTES ACTUALLY DO

Electrolytes — sodium, potassium, chloride, calcium, and magnesium — are minerals that carry an electrical charge in body fluids. That charge is what allows nerves to fire, muscles to contract, and fluid to move across cell membranes. Water is the vehicle; electrolytes are what make the system actually run.

KEY PLAYERS

Sodium · Potassium · Chloride · Calcium · Magnesium

Getting started: think of hydration as a balance to maintain, not just a volume of water to hit.

02

SODIUM IS THE ONE YOU LOSE MOST

Sodium is by far the most abundant electrolyte lost in sweat, and how much varies enormously from person to person. Sweat sodium concentration ranges roughly tenfold across individuals — from about 200mg to over 2,000mg per liter of sweat — and that range is largely genetic, not a matter of fitness.

SIGNS YOU'RE A "SALTIER" SWEATER

Sweat that tastes noticeably salty · White, stiff marks on dried workout clothes · Frequent cramping in heat

Getting started: this range is exactly why one-size-fits-all hydration advice doesn't work for everyone.

03

WHY PLAIN WATER ISN'T ALWAYS ENOUGH

Sweat carries out water and sodium together. If you replace only the water, you dilute the sodium concentration that's left in your body — which is part of why a long or hot workout can leave you feeling crampy, foggy, or flat even after drinking plenty of water.

GETTING STARTED

Pair water with food or an electrolyte source during longer, hotter, or more intense efforts, rather than water alone.

THE OTHER EXTREME: OVERHYDRATION

It's possible to drink too much plain water relative to what you're losing. In endurance events, this is called exercise-associated hyponatremia, and research on marathon and ultramarathon runners has linked it specifically to overdrinking — not just to sweating — with risk climbing sharply in runners who gain weight during a race from fluid intake.

GETTING STARTED

For most everyday activity, thirst is a reasonably reliable guide. "Drink as much as possible" is outdated advice, even for endurance events.

Start with what's free

Explore our free Hydration class and more — and sign up for our newsletter to get new guides and class dates first.

pistilapothecary.com

This is general educational information, not medical advice. Fluid and electrolyte needs vary by individual, activity, and health status — talk with a doctor or sports dietitian for guidance specific to you, especially around endurance activity or any existing health condition.