

IMPROVE WORKER SAFETY
AND PERFORMANCE THROUGH
**REAL-TIME HYDRATION
INTELLIGENCE.**



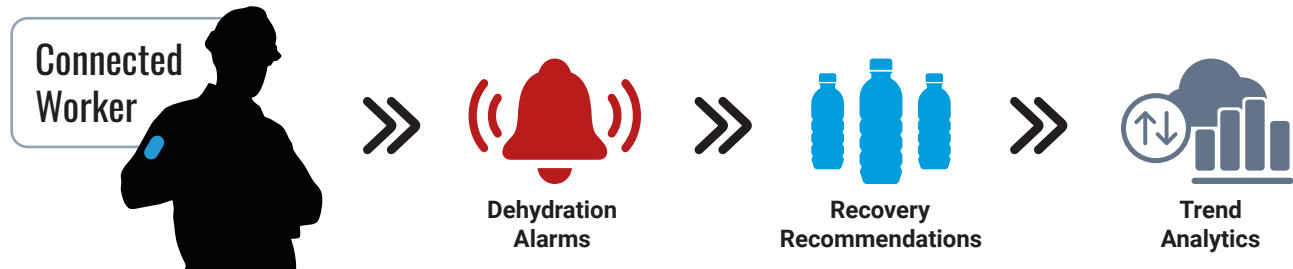
CONNECTED HYDRATION

Safety You **Feel**. Readiness You Can **Measure**.

EPICORE
BIOSYSTEMS



Connected Hydration empowers workers to proactively combat the harmful effects of dehydration, heat exposure, and the added strain of personal protective equipment (PPE). PPE can trap heat and increase fluid loss, accelerating fatigue and cognitive decline. Our arm-worn wearable wirelessly transmits real-time hydration and physiological data to a mobile app. Workers receive actionable fluid and electrolyte recommendations instantly, while haptic alerts and alarms provide immediate feedback, signaling when to rehydrate, helping them stay safe, alert, and effective even under the most demanding conditions.



HEAT AND COGNITIVE IMPAIRMENT ERODE PERFORMANCE

Even mild dehydration can impair attention, memory, balance, and reaction time. These early cognitive deficits drive many preventable workplace incidents. Workers often normalize fatigue and dehydration, masking risk until it shows up as an error, a lapse in judgment, or a recordable incident.

Cognitive performance begins to decline once body fluid loss reaches ~2%, well before any signs of heat illness appear.

Fatigue is often overlooked. Electrolyte depletion disrupts sleep quality and muscle function, resulting in workers beginning their shifts in a pre-impaired state.

Many incidents are misclassified. Slips, falls, and coordination errors are often rooted in dehydration induced cognitive fatigue.

Without real-time visibility, intervention is delayed.

Supervisors often detect risk only after an incident occurs, in the absence of early warning indicators.

Organizations adopting hydration intelligence see safer outcomes. Companies using Connected Hydration report fewer recordables and workers who feel healthier, more rested, and more capable through long, hot shifts.

"I believe in the device and I have more than a few sad stories centered around heat related illness from my construction career. I can't help but think, if maybe we had something like this 10-15 years ago, lives could have been saved."

—Scaffold / Maintenance Worker
at an off-shore oil platform

"I really enjoy the technology. It's easy to bring people up to speed, and done in such a way for people to see their own results and improve their hydration."

—Health Safety Environmental Lead
at a refinery

IMPROVED AWARENESS

Empower workers to recognize and prevent hydration-related impairment before performance declines. Personalized insights and timely alerts help workers understand their sweat and electrolyte losses — forming healthier, more consistent hydration habits.

INCREASED SAFETY

Dehydration undermines thermoregulation and blood flow, resulting in cognitive and physical impairments. Connected Hydration supports real-time behavioral interventions, enabling workers to rehydrate before risk escalates. Furthermore, it gives safety teams early visibility into high-risk conditions and behaviors.

A SIMPLE SYSTEM THAT PREDICTS, PREVENTS, AND PROTECTS.



SMART WEARABLE

A lightweight, low-profile wearable that continuously monitors sweat loss, sodium loss, temperature, and motion throughout the workday. Real-time vibration alerts notify workers when fluid deficits reach actionable levels, even without a smartphone — ideal for low-connectivity environments.

MOBILE APPLICATION

Workers receive personalized, real-time fluid-electrolyte recommendations through an intuitive Mobile Application. The app captures data via Bluetooth when nearby, stores it locally, and securely transmits to the cloud (WiFi or cellular) when available — ensuring no data gaps, even on remote sites.

SECURE CLOUD

Population-level hydration insights enable health, nutrition, and safety leaders to refine hydration strategies, identify risk trends, and enhance worker protection using data that has not been available before now.

IMPROVE WORKER SAFETY WITH A SIMPLE THREE-STEP DEPLOYMENT

- 1 Protect workers** with real-time haptic alerts and alarms that trigger before dehydration becomes a risk - giving every worker in heat-exposed and high-risk roles an immediate personal safety net.
- 2 Educate and inspire behavioral change** by delivering personalized, automated hydration and recovery recommendations directly to workers via the app - building healthier, more consistent habits across every shift.
- 3 Improve engineering and administrative controls** by using population-level dashboard data to identify environmental risks, adjust work-rest schedules, evaluate cooling strategies, and strengthen heat stress protocols across your entire workforce.

Connected Hydration turns hydration into a measurable safety control - helping organizations predict risk, prevent incidents, and protect their workforce across every shift.

ENGINEERED FOR PERFORMANCE. PROVEN IN THE FIELD.



ARMBAND (RE-USABLE)*

Materials: Polyester strap with hook and loop

Size (cm): 6.9 X 4.8

Weight (g): 39

Maintenance: Hand wash with soap and water

*An alternative to the Armband is the Patch (Single-use). This Patch has the following specifications:

- Size (cm): 9.4 X 4.8 X 0.076
- Skin Adhesive: Hypoallergenic
- Shelf Life in Package: 2 years

ELECTRONIC MODULE (RE-USABLE)†

Sweat Sensor Resolution, Whole Body (ml): 125

Sweat Sensor Electrolyte Range, Typ (mM): 15 -105

Motion Sensor, G (max): 16

Temperature Resolution (min): 0.2°C (0.36°F)

Log Duration, Between Sync (hrs): 16

Battery Life, Expected‡ (yrs): 1

Operating Temperature Range:

5°C-65°C (41°F-149°F)

Size (cm): 6.6 X 3.0 X 1.0

Weight (g): 21

Certifications: Class I, Div 2, Groups A, B, C, and D, T6; Class I, Zone 2, AEX IC IIC T6 GC. Conforms to UL STDS 60079-0 & 60079-11. Certified to CSA STDS C22.2 # 60079-0 & 60079-11.

†Module interfaces interchangeably with Patch or Armband.

‡Majority of users continue to use the same battery after 1 year.



BOOK A DEMO

TECHNICAL SPECIFICATIONS (SOFTWARE & CLOUD)

MOBILE APPLICATION

Tested Phones: iPhone 8+; iPhone SE 2+; SAMSUNG Galaxy XCover Pro; Google Pixel 6+

Operating Systems: iOS 17.6+; Android 10+

Privacy: Individual worker data only visible to worker

SECURE CLOUD (WEB PORTAL)

Type: Software as a Service (SaaS)

Security Attestation: SOC2 Type 2

Privacy: By default, data is anonymized. If shared with Safety Team, only aggregated group data* is reported.

*temperature, activity, sweat volume, and sweat sodium losses

Validated through peer-reviewed research, including publications in Nature Digital Medicine.

Medical Disclaimer: Connected Hydration® is not used for any diagnosis, treatment, or monitoring of a patient or for compensation or alleviation of disease, injury or disability. Workers should seek a doctor's advice before making any medical decisions.



Epicore Biosystems, Inc.
810 Memorial Drive, Suite 100
Cambridge, MA 02139 USA

For more information:
visit: www.epicorebiosystems.com
email: sales@epicorebiosystems.com