



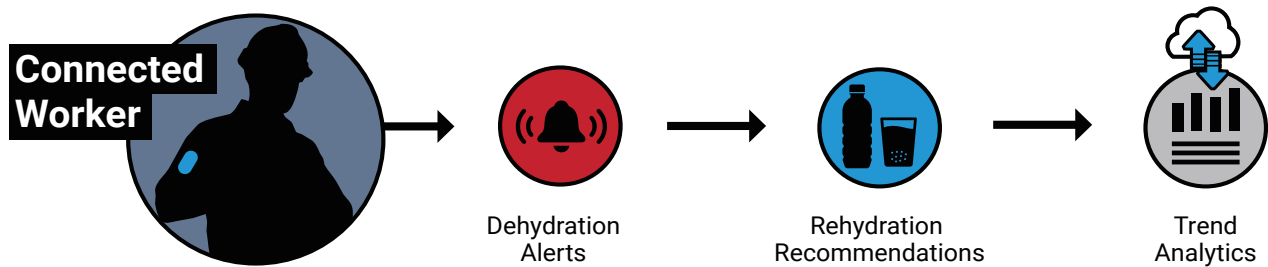
SWEAT FLUID LOSS  
SWEAT SODIUM LOSS  
TEMPERATURE  
PHYSICAL ACTIVITY

# CONNECTED HYDRATION

Stay **Safe**. Stay **Hydrated**.

**EPICORE**  
BIOSYSTEMS





Connected Hydration empowers workers to proactively combat the harmful effects of dehydration and heat exposure by providing personalized hydration feedback. Our Smart Wearable, worn on the arm, wirelessly relays real-time hydration and physiological data to a Mobile Application. Workers receive actionable fluid-electrolyte suggestions in real-time. Vibration alerts and alarms delivered by the Smart Wearable provide workers with instantaneous feedback informing them when to rehydrate.



### SMART WEARABLE

A low profile and light-weight Smart Wearable continuously measures sweat loss, sodium loss, temperature, and motion throughout the workday. The wearable provides real-time vibration alerts for every 500 mL of sweat loss, and alarms triggered at 2% fluid deficit per body weight, all without needing to have a smartphone nearby—ideal for no/low connectivity environments.

### MOBILE APPLICATION

Workers experience personalized, real-time fluid-electrolyte intake suggestions directly on a smartphone Mobile Application. The app seamlessly receives data from the Smart Wearable through Bluetooth when it is nearby, and transmits it to the cloud wirelessly (WIFI or Cellular). The app ensures local storage and accessibility, even without transmission.

### SECURE CLOUD

Population hydration data and environmental factors on our Secure Cloud enable health, nutrition, and safety leaders to refine hydration strategies and enhance overall safety with actionable insights. Seamless data transmission (WIFI or Cellular) to the cloud through our smartphone Mobile Application ensures access to critical information.

# The Most Validated & Accurate Sweat Sensor

**EASY TO USE** Lightweight and low profile Smart Wearable is worn on the bicep-tricep region. Daily start-up is easy and quick for fast deployment.

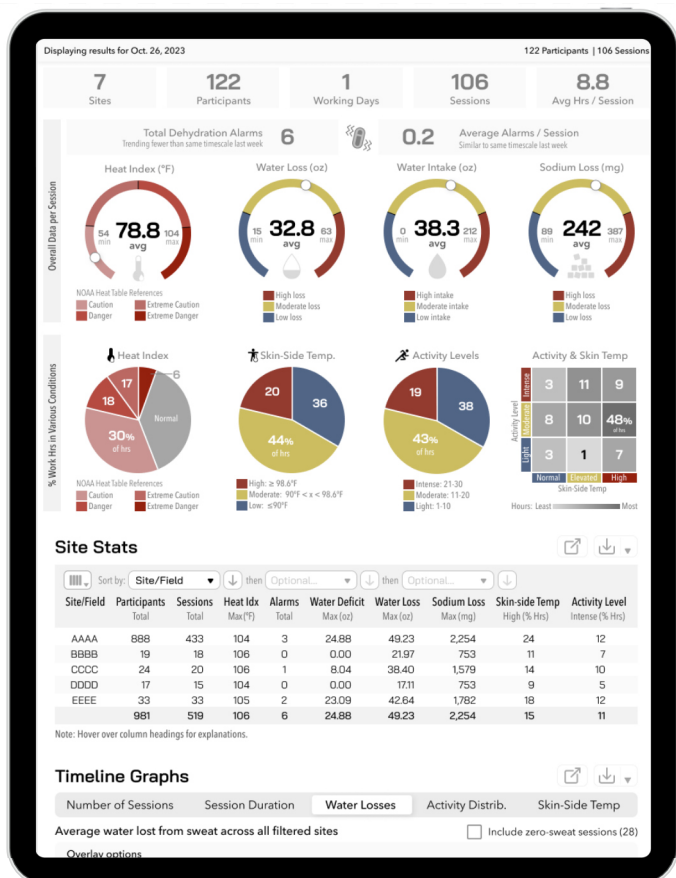
**COMFORTABLE** Low-profile, soft, medical grade adhesive can be readily worn under PPE and clothing.

**ACCURATE** Sweat volume, electrolyte, temperature, and motion data have been tested and validated against gold standard sweat testing instruments.

**PERSONALIZED** Hydration alerts and alarms are experienced via vibrations and individualized for each user, depending on sweat/electrolyte losses, skin temperature and motion data.

**COMPREHENSIVE** Workers can easily view their real-time and historical data to quickly improve their behavior through a streamlined Mobile Application experience.

**REAL-TIME ANALYTICS** Key takeaways captured from hydration data and population trends are auto-generated and fast decision making through the Secure Cloud.



## Personalized Hydration Drives Sustained Behavior Change

**IMPROVED AWARENESS** Connected Hydration empowers workers to proactively combat the detrimental effects of dehydration and heat exposure through behavioral insights and better understanding of their personal sweat and electrolyte losses. Individualized hydration alerts and alarms facilitate both timely replenishment of fluid-electrolyte losses, and awareness of significant losses to improve short and long term behavior for a healthier lifestyle.

**INCREASED SAFETY** Mild and severe dehydration can initiate cognitive and physiological changes that compromise the human body's ability to thermally regulate and control blood flow to vital organs. As a result, dehydration and heat exposure give rise to impairments in both physical and cognitive performance. By recommending fluid-electrolyte intake strategies in real-time, Connected Hydration enables behavioral hydration interventions for individual workers and equips safety teams with actionable hydration data insights to anticipate low, medium, and high-risk situations and environmental factors impacting the workforce.



# Technical Specifications (Smart Wearable Hardware)

PATCH



ELECTRONIC  
MODULE



## Patch (Single-use)

**SIZE (CM):** 9.4 x 4.8 x 0.076

**SKIN ADHESIVE:** Hypoallergenic

**STORAGE TEMPERATURE:** 5°C-50°C (41°F-122°F)

**OPERATING TEMPERATURE<sup>†</sup>:** 5°C-45°C (41°F-113°F)

**SHELF LIFE IN PACKAGE (YRS):** 2

## 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, TYPICAL\* (HRS):** 1000

**OPERATING TEMPERATURE RANGE<sup>‡</sup>:**  
5°C-45°C (41°F-113°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.

**MAINTENANCE:** Battery replacement included in subscription

\*Assumes 8-16 hour work day

<sup>†</sup>Tested for intrinsic safety to +65°C but is marked +45°C in alignment with United States Ordinary Locations requirements. Data on file at Epicore.

# Technical Specifications (Software & Cloud)

## Mobile Application

**TESTED PHONES:** iPhone 8+; iPhone SE 2+;  
SAMSUNG Galaxy XCover Pro; Google Pixel 6+

**OPERATING SYSTEMS:** iOS16+; Android 10+

**PRIVACY:** Individual worker data only visible to worker

**STORAGE TEMPERATURE:** 5°C-50°C (41°F-122°F)

## Secure Cloud (Web Portal)

**TYPE:** Software as a Service (SaaS)

**SECURITY ATTESTATION:** SOC2 Type 2

**PRIVACY:** If anonymized data is shared with Safety Team, only aggregated group data (temperature, activity, sweat volume and sweat sodium losses) is reported.

**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.