

I-CWIK® – Ice-Cold Water Immersion Kit

Rapid cooling capability for high-risk environments



Why this matters

Exertional heat stroke (EHS) is one of the leading causes of sudden, preventable death in physically demanding environments including mining, oil & gas, offshore operations, military and police/military exercises, mass gathering events such as music festivals and sporting & endurance events.

Evidence consistently demonstrates that EHS is highly survivable when rapid whole-body cooling is initiated early. Cold-water immersion achieves the fastest cooling rates, and delays to cooling are associated with increased mortality, organ failure, and long-term neurological injury.

Time to cooling matters more than time to hospital.



The operational risk

EHS risk is elevated in environments characterised by high ambient temperatures, radiant heat exposure, sustained physical exertion, restrictive PPE, and limited access to definitive, rapid, medical care. Across mining, oil & gas, offshore, and event medical settings, fixed cold-water immersion facilities are rarely available or practical, creating a critical treatment gap.

The solution

I-CWIK® is a portable, non-powered cold-water immersion system designed to enable rapid whole-body cooling at the point of care using water and ice. It supports guideline-aligned management of EHS while allowing responders to maintain airway control, patient monitoring, and escalation pathways.

Designed for real-world operations

- Portable and deployable – no power, no electronics, lightweight, packs down small
- Rapid setup using readily available water and ice
- Large-volume immersion for effective whole-body cooling
- Durable construction suited to industrial, offshore, and event environments
- Simple, intuitive design supporting team-based emergency response

Typical use environments

Mining and resources

Oil and gas (onshore and offshore)

Military and Police activities and exercises

Sport, endurance and other mass gathering events

Remote and high-risk worksites



ICWIK is registered on the Australian Therapeutic Goods Association ARTG as a Class 1, non sterile, non invasive medical device

Important Information – IFU Summary

This page contains a summary Instructions for Use (IFU) element only. The full Instructions for Use must be followed at all times.

Intended purpose

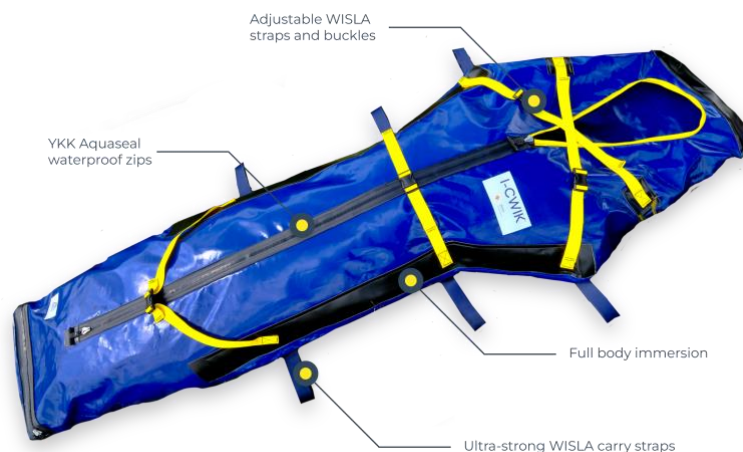
I-CWIK® is a portable, non-powered cold-water immersion bag intended to enable rapid whole-body cooling for a casualty with suspected exertional heat stroke or severe hyperthermia as part of an organised emergency response.

Key warnings

- Use only by trained responders or medical personnel
- Airway, breathing, and circulation must be managed at all times
- Never immerse an unprotected airway
- Monitor continuously and avoid over-cooling
- Do not use if the device is damaged or leaking

Summary use steps

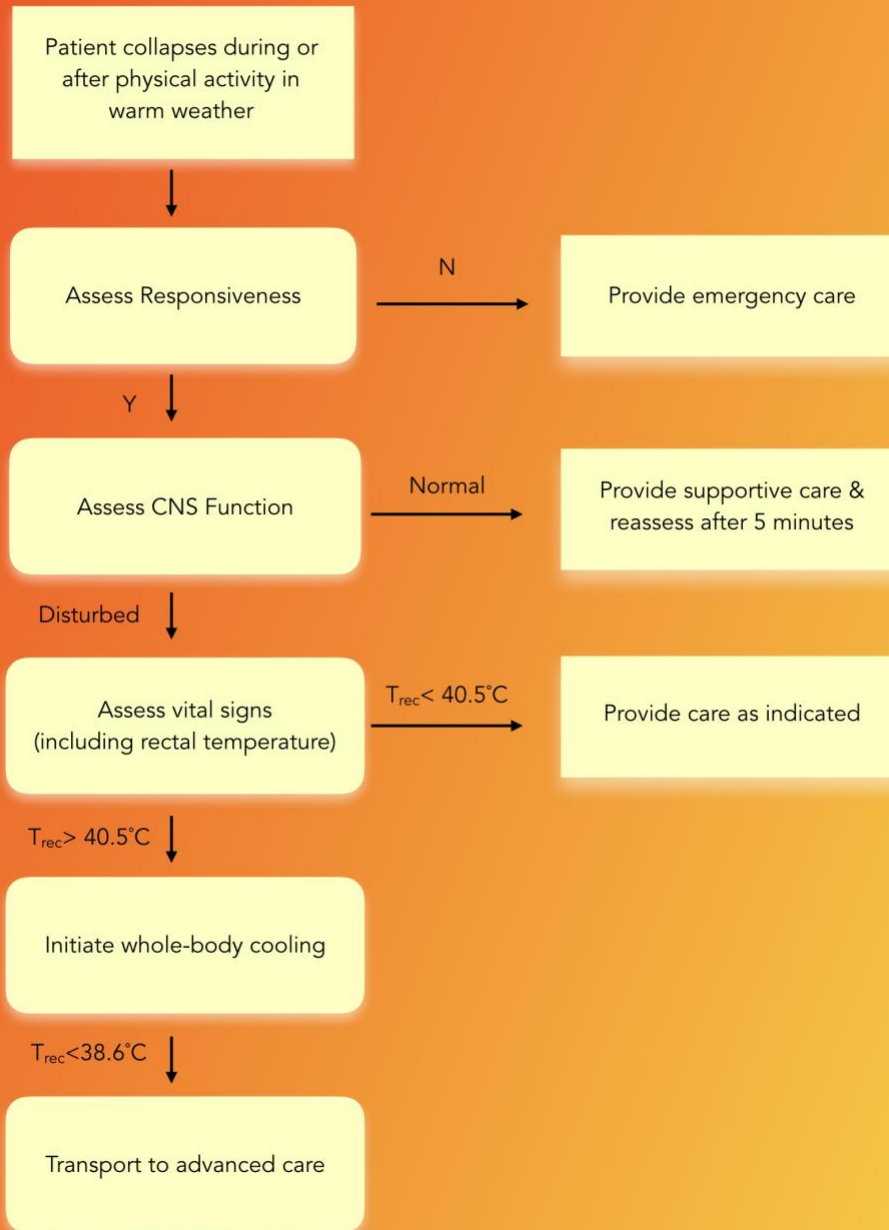
1. Identify suspected exertional heat stroke or severe hyperthermia
2. Position the casualty in the I-CWIK, keep head end elevated or on head support, roll foot end up to height of casualty
3. Fill with cold water and ice while maintaining airway control
4. Agitate water to enhance cooling, close and pull straps to keep water close to casualty
5. Monitor continuously and escalate care as required, remove water through foot end if warming, fill with cold water
6. Cease immersion once clinically appropriate and prevent over-cooling





Algorithm for the Treatment of EHS

(from Belval et. al. PEC 2018)



Cleaning and storage

Drain and rinse after use. Clean using a 0.5% chlorine solution. Air-dry completely before storage. Store clean, dry, and protected from heat and sharp objects.

References

1. Casa, D. J., DeMartini, J. K., Bergeron, M. F., Csillan, D., Eichner, E. R., Lopez, R. M., ... & Yeargin, S. W. (2015). **National Athletic Trainers' Association position statement: exertional heat illnesses**. *Journal of athletic training*, 50(9), 986-1000.
2. Casa, D. J., McDermott, B. P., Lee, E. C., Yeargin, S. W., Armstrong, L. E., & Maresh, C. M. (2007). **Cold water immersion: the gold standard for exertional heatstroke treatment**. *Exercise and sport sciences reviews*, 35(3), 141-149.
3. Roberts, W. O., Armstrong, L. E., Sawka, M. N., Yeargin, S. W., Heled, Y., & O'Connor, F. G. (2021). **ACSM expert consensus statement on exertional heat illness: recognition, management, and return to activity**. *Current sports medicine reports*, 20(9), 470-484.
4. Belval, L. N., Casa, D. J., Adams, W. M., Chiampas, G. T., Holschen, J. C., Hosokawa, Y., ... & Stearns, R. L. (2018). **Consensus statement-prehospital care of exertional heat stroke**. *Prehospital Emergency Care*, 22(3), 392-397.