

Decompression Sickness

START IMMEDIATELY — recompress as soon as feasible

Recompression is the universally accepted definitive treatment for symptomatic Type I or Type II decompression sickness.

TREATMENT PROTOCOL

Pressure	2.82 ATA (60 fsw / 18 msw). USN Table 5 for pain-only disease with complete relief inside 10 min, Table 6 for neurological, cardiopulmonary and all others. Tables below 2.8 ATA are not recommended , and no advantage has been shown above 2.82 ATA
Duration	Per table. One small RCT found a 160-min profile superior to 275 min in mild disease (fewer treatments, same final outcome)
Frequency	Repeat once daily if needed; tailing treatments on Table 5 or at 2.0–2.4 ATA
Sessions	Most respond to a single treatment. 5–10 suffices for nearly all; a small minority need 15–20
Review	After 10 treatments

PATIENT SELECTION

Who to treat	Type I (cutaneous, musculoskeletal) or Type II (neurological, cardiopulmonary) decompression sickness following diving or another decompression exposure.
Who not to treat, or when to stop	Exclude or treat a tension pneumothorax before compression. Late presentation is still worth treating — a 546-patient national cohort found outcomes beyond 48 h similar to those treated inside 48 h.
Mechanism	Reduces inert-gas bubble volume, promotes washout, restores tissue oxygenation and limits secondary inflammatory and endothelial injury.
Outcome measure	Complete relief; number of treatments to resolution; neurocognitive and vestibular function in the inner-ear subtype.

WHAT THE NUMBERS SHOW

- Banham 2022 RCT** (n=41, single-blind): the FH01 table gave **fewer treatments to resolution (median 1 vs 2, P=0.01)** and more first-treatment complete resolution (**85% vs 38%, P=0.003**), with equivalent final outcomes.
- Chin 2017** (n=103): 53 complete relief, 45 partial, 5 none. Of those with complete relief, **28 (53%) needed only one recompression.**
- Sokolowski 2022** (n=546): treatment delayed beyond 48 h gave outcomes similar to treatment within 48 h — **a null result, and not an argument for waiting.**
- Mitchell 2018 consensus:** limited evidence that delays beyond 6 h give slower or less complete recovery in more serious cases.

EVIDENCE BASE

Shape and certainty	Recompression itself has never been randomised — withholding it is not ethical. A 2025 review found only two RCTs in divers (an adjunct drug and a table comparison); Cochrane 2012 also lists a heliox-table trial. None tests recompression itself.
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Study	Design	Result and risk of bias
Vann 2011, Lancet — PMID 21215883	Seminar review	The canonical reference text
Bennett 2012, Cochrane — PMID 22592704	Systematic review	Recompression standard; no RCT exists
Banham 2022, Diving Hyperb Med — PMID 35732279	Single-blind RCT, n=41	Positive — table comparison only
Fairhead 2025, Undersea Hyperb Med — PMID 41429038	Review of RCTs in DCI	Two RCTs found in divers; abstract only

WHAT THE EVIDENCE DOES NOT SUPPORT

Cautions	No randomised trial of recompression exists anywhere. The retrospective delay series are confounded in a specific direction: the sickest divers reach the chamber fastest , which biases against detecting a benefit from speed. Adjuncts reduce the number of recompressions, not the odds of recovery.
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STATUS IN SOUTH AFRICA

Status	Accepted indication in South Africa (SAUHMA Level C). PMB pathway via the environmental-exposure diagnosis-treatment pair — adjudicate against its coded list, not its label.
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Compiled from the **UHMS Hyperbaric Oxygen Therapy Indications Manual, 15th edition (2023)** and the appraised trial evidence held in an HBOT evidence library. All treatments are 100% oxygen. US Navy Treatment Table profiles are named, not reproduced — the US Navy Diving Manual is the operative document at the chamber. Session counts are largely guideline convention rather than dose-finding evidence. This card summarises published parameters and does not replace those source documents or clinical judgement for the individual patient. Generated 03 October 2026. Not a SAUHMA publication and carries no society endorsement.