

Treatment of Decompression Sickness

Operational Update – May 2001

Aspirin is NO LONGER USED in the treatment of DCS.

Reasons: ASA administration has never been shown to help prevent or treat bubbles
DCS may induce microhemorrhages in tissues. ASA slows clotting.
Hard to determine if symptom decrease is due to HBO treatment table or ASA
This may be a critical treatment decision factor if using TT-5
Hyperbaric Oxygen is the only necessary and sufficient drug for DCS

Employment of 100% O₂ by tight fitting aviators mask during transportation to HBO chamber

For mild to moderate symptoms with no CNS or spinal neurological involvement:

Use cycles of 50 min of 100% O₂, followed by a 10 min air break, instead of continuous O₂

Reasons: Air breaks minimize likelihood of pulmonary and CNS O₂ toxicity
Rehydrate & feed patient orally during air break
May obviate need for IV rehydration

Bathroom privileges during air breaks

You ever wear a tight fitting oxygen mask for 3 hours straight?

Patient can call spouse – “I’ll be home late tonight.”

Air breaks are NOT used during SLO₂ (Surface Oxygen) treatment protocols

For severe symptoms, chokes, shock, CNS, spinal, or worsening Sx despite O₂ therapy:

Use continuous O₂ therapy with IV rehydration (0.9% Saline or Ringers Lactate, NOT D5W)

In general, do not pass up an otherwise acceptable monoplace facility (with BIBS) in favor of a multiplace facility for treatment of severe DCS or AGE if the additional travel time to the multiplace exceeds 30 minutes. Less than 30 minutes difference, or mild to moderate symptoms, requires the sending physician to consider risks and benefits of treatment delay versus multiplace advantages.

Reasons:

There is no faster way to remove excess Nitrogen than 100% O₂ at 66 FSW (Dick Rutkowski)

Treatable severe injury may become permanent damage through treatment delay

Monoplace facilities with BIBS (built in breathing system for air breaks) can do TT-6 and TT-5

TT-6 early may well be better than TT-6a later (TT-6a is relatively dangerous)

Current Navy TT-6a (Diveman 4) starts with TT-6 and reassessment for deeper after 20 min O₂

Bottom Line: If you pass up a monoplace facility, make sure you reasons are valid

Col Benton P. Zwart, MD, MPH
Chief, Clinical Hyperbaric Medicine
Davis Hyperbaric Laboratory
Brooks AFB, TX