

Proximity to a Recompression Chamber After Surfacing

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Introduction

In the preparation of this guidance, **which is specific for locations where a compression chamber is on site**, the Committee has used its judgement to propose a reasonable compromise between the time required to remain at a chamber location against the progressively diminishing risk of developing acute decompression illness.

Consideration has been given to the evidence available from reported incidents in the North Sea, naval sources, the experience of major diving contractors, and relevant papers in the scientific literature. Types of diving differ very much in their decompression risks but a serious incident can arise after any exposure to pressure, no matter how safe it may have seemed. Little distinction has been given in the reviewed references to the details of the type of diving or decompression.

In this note it is assumed that only well proven procedures and tables are being used. After most diving, 95% of the manifestations of decompression illness arise within 4 hours and, after surfacing from an oxy-helium saturation dive, symptoms tend to appear within 6 hours of surfacing, but it is not possible to define the point in time after which there is effectively a zero risk: traditionally this has been set at 36 hours but there are exceptions.

Fortunately, it seems to be generally true that the more serious varieties of decompression illness, which require an immediate recompression, arise fairly soon after surfacing whereas the manifestations arising six or more hours after surfacing usually, but not always, require less urgent treatment. Decompression illness may be rare after relatively shallow dives and the onset of manifestations some 12 hours after surfacing may also be uncommon but, when it is required, the need for recompression could be urgent. This must be considered in the preparation of contingency plans.

It is stressed that this note is advisory only and must be considered by each diving contractor's safety and medical advisers according to the circumstances of each planned dive and the resources which will be available.

Proximity To A Two-Compartment Recompression Chamber after Surfacing from Air or Mixed Gas Dives

Attention must be given to the separate guidance offered on flying after diving (DMAC 07).

A distinction between different types of diving is reasonable:

- i) **On completion of oxy-helium or other saturation decompression; after surface-orientated dives requiring decompression stops; and after dives within the no-stop limits but with multiple ascents ('yo-yo' diving)** the divers should remain in the vicinity (within 20 minutes) of a suitable chamber for 4 hours. They should then remain within two hours travelling time of a two-compartment chamber until 12 hours post-surfacing.
- ii) **Air diving shallower than 10m and for one or two dives within accepted no-stop limits**, the divers should remain in the vicinity of a suitable chamber (within 20 minutes) for one hour.

The diving contractor's diving rules should make provision for any subsequent emergency procedures after these intervals.

It should be emphasised to all divers that:

- ◆ any symptom should be reported before departure from a dive location;
- ◆ treatment begun soon after the onset of symptoms is often relatively straightforward but treatment which has been delayed for a while after the onset of symptoms may be difficult because the condition has become less responsive.