

The Duration of Saturation Exposures and Surface Intervals following Saturations

Guidance
DMAC 21 Rev. 2 – June 2006

Supersedes DMAC 21 and DMAC 21 Rev. 1, which are withdrawn

The scarcity of relevant medical knowledge still makes it difficult to allow absolute time criteria to be determined for maximum duration of saturation exposures; minimum interval between saturations; or a cumulative limit over time.

Where no national regulations exist, the committee recommends that:

- 1 **Under normal circumstances saturation duration should not exceed 28 days.** In exceptional circumstances it may be appropriate to consider a brief extension, but only with the written agreement of the diving contractor's medical advisor, the divers and diving supervisors.
- 2 It is known that some impairment in physiological function occurs after a period in saturation and that after very deep dives, this can take some weeks to reverse. Until more is known about the effects of shallower diving, the following recommendations regarding length of interval between saturations are made:
 - 2.1 **Saturation diving should be planned so that each period spent in saturation by a diver is followed by a surface interval of equal duration.**
 - 2.2 A diver may however be recommitted to saturation after a shorter surface interval (in air at atmospheric pressure) subject to the following provisos:
 - i) The surface interval should not be less than 50% of the duration of the preceding saturation dive or 10 days whichever is the lesser.
 - ii) Where a diver carries out two saturation dives separated by a shorter surface interval than that defined in 2.1, the surface interval subsequent to the two dives should be not less than the duration of the longer of the two saturations.
 - 2.3 A diver's cumulative saturation exposure should not exceed 182 days in any 12 calendar months.
 - 2.4 Until completion of the recommended surface interval (as specified in 2.1 and 2.2) after a saturation dive, a diver should not undertake any diving or be exposed to any pressure greater than atmospheric unless cleared to do so by the relevant diving contractor's medical adviser who will take all circumstances into account, including the duration and depth of the previous saturation exposure and the proposed diving.
 - 2.5 Following deep saturation dives, e.g. in excess of 200 metres, the surface interval should not be less than the duration of the saturation and preference should be given to a surface interval of at least 28 days.
- 3 When the above guidance was last issued by DMAC, as Rev. 1 in 1991, the committee recognised that there was a requirement for further knowledge in this field to be gained and acknowledged that in due course information could have been forthcoming which might necessitate review of the above guidance. In 2006 the committee, having reviewed its guidance, now considers that further knowledge is unlikely to be forthcoming.