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Reverse profile diving

This bulletin provides guidance about reverse profile diving during occupational diving operations. It has been developed in consultation with the Diving Industry Advisory Group (DIAG). It updates information first shared by DIAG in 2017.

Introduction

WorkSafe consulted with DIAG to determine whether reverse profile diving is a suitable practice for an occupational diver.

What is reverse profile diving?

Reverse profile diving means diving to a greater depth on a repetitive dive that follows on from a previous shallower dive, as shown in Figure 1. A repetitive dive is a dive made soon after another dive, separated by a short surface interval – where the diver may not have completely outgassed from the first dive.

Reverse profile diving has risks for divers, including the risk of decompression sickness.

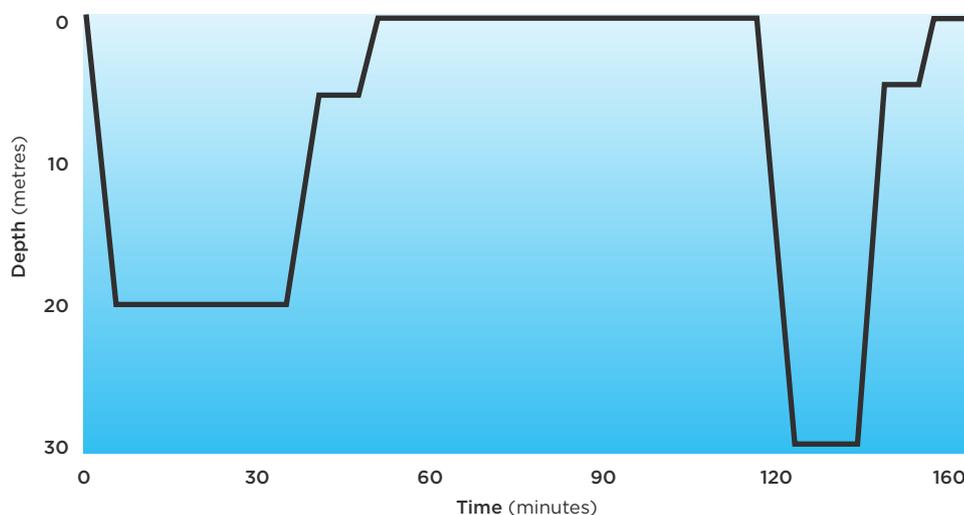


FIGURE 1: Example of a reverse dive profile

Recommendations

- The 'deeper dive first' practice is commonly accepted to be the **safest method** for occupational diving.
- If **reverse profile diving is required**, current expert medical advice indicates that it can be undertaken **provided that all dives in the series**:
 - are no-decompression stop dives; and
 - are no deeper than 40 m; and
 - are no more than 12 m deeper than any previous dive (in the same series).

Reverse profile diving **outside these limits** could **increase the risk of hyperbaric injury** to the diver.

Before carrying out a reverse profile dive, the working diver and/or dive supervisor needs to know the maximum depth of any previous dive so that they can calculate the maximum depth for the repetitive dive.

Further information

WorkSafe's [Occupational diving](#) guidance and related information.

Lang, M.A and Lehner, C.E. (eds). 2000. *Proceedings of the Reverse Dive Profiles Workshop*. October 29-30, 1999. Washington D.C.: Smithsonian Institution.