

New Safety Stop Recommendations

By Lloyd Borrett

1 minute at half of the maximum depth.

2 minutes at 5 to 6 metres (15 to 20 feet).

The key to decompression safety isn't trying to outgas nitrogen as quickly as possible. It's trying to eliminate the nitrogen as quickly as possible while preventing the formation of any bubbles — even the asymptomatic or “silent” kind.

Several recent studies have confirmed that stopping deeper than the generally accepted 3 to 5 metres (10 to 15 feet) allows nitrogen to escape more efficiently and prevents, or drastically reduces, the formation of silent bubbles.

With the introduction of new dive tables based on Dr. Bruce Wienke's Reduced Gradient Bubble Model (RGBM), some of the training agencies have introduced new recommendations for safety stops.

It is now advised that all recreational diving incorporates a deep stop for one minute at a depth half that of the maximum depth, followed by a two minute stop at 5 to 6 metres (15 to 20 feet).

Thus the new recommendations for safety stops still have us stopping for a total of 3 minutes. It's just that we should stop for one minute at half of our maximum depth, and then stop again for two minutes at 5 to 6 metres (15 to 20 feet). Note that the shallower stop is now recommended to be 5 to 6 metres (15 to 20 feet), not the more common 3 to 5 metres (10 to 15 feet). Naturally, if your dive is no deeper than 12 metres, then you would just do a three minute stop at 5 to 6 metres (15 to 20 feet).

Many of the more recent dive computers use algorithms based on the RGBM model. Thus there are already dive computers about which can prompt divers to do a deeper safety stop for 1 minute followed by a shallower safety stop for 2 minutes.