
Important Rules

Team Blue
Immersion

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Recommendations

Blue immersion

Important Information

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Emergency Procedures

(all information is taken **directly** from the 'PADI Emergency Procedures Slate' and is copyright of PADI)

Missed Decompression Stop – *Immediate descend*

- Immediately descend (within one minute if possible)
- Complete stop plus 1 minute
- Decompress according to normal schedule

Missed Decompression Stop – *decent not possible*

- Stay at next stop for combined time of both depths
- Extend 6m stop and final stop by 1.5 times (2 is recommendation of Blue Immersion) normal deco time

Delay in Ascent – *Before reaching first stop*

- Add delay to bottom time and decompress on new schedule
- Extend final stop as much practical, gas allowing

Delay in Ascent – *Between stops*

- Not critical if not longer than 2 or 3 minutes
- Do not count delay time as deco time
- Extend final stop as much as practical, gas allowing

Omitted Decompression – *6m or shallower – no DCS symptoms and return < than 1 minute*

- Complete decompression as scheduled
- Extend final stop as much as practical, gas allowing

Omitted Decompression – *6m or shallower – no DSC symptoms and return >than 1 minute*

- Extend 6m stop and final stop by 1.5 time (2 is the recommendation of Blue Immersion) normal deco time
- Extend final stop beyond 1.5 times (2 is the recommendation of Blue Immersion or as much as practical, gas allowing)

Omitted decompression – *from deeper than 6m and no signs of DCS*

- Return to stop depths quickly as possible (less than 5 minutes is ideal)
- Decompress according to schedule up to and including 12m
- Extend 9m and all shallower stops by 1.5 times (2 for blue immersion) normal deco
- Extend final stops beyond 1.5 times deco time as much as practical, gas allowing

Oxygen Toxicity

- Immediately switch to lower gas (back or travel gas)
- Ascend as much as possible without compromising decompression
- Stay on low oxygen gas for at least 15 minutes after all symptoms subside
- Keep on O2 as low as possible for the deco schedule

CONSULT 'TECHNICAL RESCUE COURSE' BY JONAS SAMUELSON FOR MORE INFO

Principle of Surviving a Tech Dive

(all information is taken **directly** from the 'Principles of Surviving a Tech Dive' and is copyright of PADI)

Principle of Secondary Life Support – You should have at least two independent sources of anything that keeps you alive and unhurt: gas supply, depth and decompression information, buoyancy control, etc. If one fails, you abort the dive on the other

Principle of Gas Reserve – You should have ample gas to handle reasonably foreseeable emergencies and still complete your decompression. This generally means that one third of each gas should be a reserve.

Principle of Self Sufficiency – At any point in the dive, you should be able to complete it independently

Principle of Depth – Your dive plan should account for narcosis, decompression, oxygen toxicity and gas supply needs based on planned depth and contingency depth (and times that you do not exceed).

Principle of Simplicity (KISS principle) – Your dive should be planned as simple as possible, with complexities eliminated.

Principle of Procedures and Discipline – You follow the rules and work the procedures without exception on every dive, no matter how familiar the dive and no matter how much experience you have. Cutting corners kills

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NOTOX

Gas switch (NOTOX) procedures might very well be the most important skill learned in technical diving. With most accident occurring as a result of breathing the wrong gas at depth, familiarity and precision for such gas switches is vital. Never get complacent and always follow the steps precisely to avoid accidents.

N – ote	note depth
O – bserve	observe tank markings. Show to partner
T – turn	turn on gas
O – rientate	pull hose. Follow to first stage. purge
X – change	double check depth. Exchange regulators
IC – identify computer	change gas mix on computer

Always make sure to execute gas switches in teams. Partners act as a 'back up' brain and also a visual reference while carrying out a gas switch

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CON-VENTID

The acronym for the sign and symptoms of **oxygen toxicity** are as follows:

CON-vulsions

V isual disturbances

E ar ringing

N ausea

T witching

I rritated lung (burning sensation)

D izziness

The onset of oxygen toxicity can happen gradually over a period of time or immediately. Never dive outside your planned depths and PPO₂ limits. Always be prudent and never get complacent during gas switches (NOTOX)

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A GOOD DIVERS MAIN OBJECTIVE IS TO LIVE

Pre dive considerations are imperative to a successful dive. Review and make sure the following aspects are considered for each and every dive.

Good - Gas Divers - Decompression Main - Mission Objective - Oxygen Is – Inert Gas To - Thermal Live - Logistics

Gas – Inputting desired depth and time into the dive plan software, double check that gas properties (PPO2 etc.) are acceptable. Make sure the gas volume is enough for the required dive based on the rule of thirds.

Decompression – Ensure that the decompression obligations are acceptable for all members of the dive. If deco is too long for either the divers or environment then decrease the depth or time until the desired level of decompression time is achieved

Mission – Too many tasks or missions on one dive can complicate a dive and has the potential to turn fatal. Make sure the mission for the dive is clear and that too many missions are not included into a single dive. If so, dividing the missions over multiple dives might be required.

Inert Gas – Acceptable narcotic depth will vary from dive to dive, depending on the environment, dive mission, and ability of each individual diver. NEVER push the limits and always dive within the boundaries of your training.

Thermal – Excessively long dives or extreme water temperatures must be considered. Make sure the exposure suit is appropriate for the dive and each diver is comfortable in its use.

Logistics – Excess equipment and planning makes technical diving more challenging than recreational diving. Be sure all aspects of the dive are pre considered and have been accounted for.

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IMPORTANT CALCULATIONS

MOD

Back Gas (1.4 PPO₂)

$$(14/O_2\%) - 10 =$$

Deco Gas (1.6 PPO₂)

$$(16/O_2\%) - 10 =$$

Gas reserves (rule of 3rds)

Back gas (twins)

$$2 \times 11L \times 200bar = 4400L$$

2993L is the max allowance with reserve considerations

Deco Gas (11L)

$$11L \times 200bar = 2200L$$

1466L is the max allowance with reserve considerations

Deco Gas (6L – oxygen)

$$6L \times 100bar = 600L$$

400L is the max allowance with reserve considerations

Narcotic Potency of Inert Gases

Gas	Molecular Weight	Solubility in Liquid	Relative Narcotic Potency
Helium (He)	4	0.015	.2 (least narcotic)
Neon (Ne)	20	0.019	0.3
Nitrogen (N ₂)	28	0.067	1.0
Oxygen (O ₂)	32	0.110	1.7
Argon (Ar)	40	0.140	2.3
Krypton (Kr)	83.7	0.430	2.5
Carbon Dioxide (CO ₂)	44	1.340	20.0
Xenon	131.3	1.70	25.6 (most narcotic)