CMG 25 - DIVING EMERGENCIES

(Revised: February 2021)



Decompression illness may occur anytime within 24 hours of a dive.

Decompression illness encompasses two disease processes:

Decompression sickness (DCS or "the bends") – as a result of rapid pressure reduction (i.e., rapid ascent from depth), the nitrogen that had been dissolved in the tissues forms bubbles that are then caught in the tissues or bloodstream.

Arterial gas embolism (AGE) – air trapped within the alveoli (usually as a result of breath-holding during ascent) expands, causing pulmonary barotrauma, rupturing capillary walls and allowing gas bubbles to enter the arterial circulation. Bubbles become trapped in small arteries (significantly in the brain) and interrupt circulation.

| Symptoms of decompression illness include: | | | | |
|---|--|---|---|--|
| NEUROLOGICAL motor/sensory deficit paralysis confusion seizure unconsciousness | RESPIRATORY dyspnoea pneumothorax / subcutaneous emphysema haemoptysis APO cyanosis | cARDIACchest paincardiac arrest | OTHER pain in the joints pruritis (blotchy rash) itchiness tremors lymphoedema | |
| DCS and A | GE symptoms can be clinically inc but prehospital managen | | one another, | |

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| ICP | If in cardiac arrest – treat as per CMG 4 | AP |
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| ICP | Posture supine – do not sit patient up (if unconscious – posture left lateral) | AP |
| ICP | Oxygen therapy – highest concentration practicable (continue throughout contact time, regardless of apparent clinical improvement) | |
| ICP | Check/monitor for pneumothorax (occasionally a barotrauma related pneumothorax can tension – be prepared to decompress) | |
| ICP | Patients are always dehydrated – rehydrate promptly as per CMG 14 | AP |
| ICP | Treat hypothermia as per CMG 11 | AP |
| ICP | Ascertain (and document) dive profile (depth and duration of dive/s, number and sequence of dives, breathing mixtures, decompression stops and any uncontrolled ascent) | АР |
| ICP | Remember to check dive partner | AP |
| ICP | Monitor (and document) symptom progression | AP |
| ICP | Analgesia as per CMG 2 | |
| ICP | Transport to TCH preferred | AP |