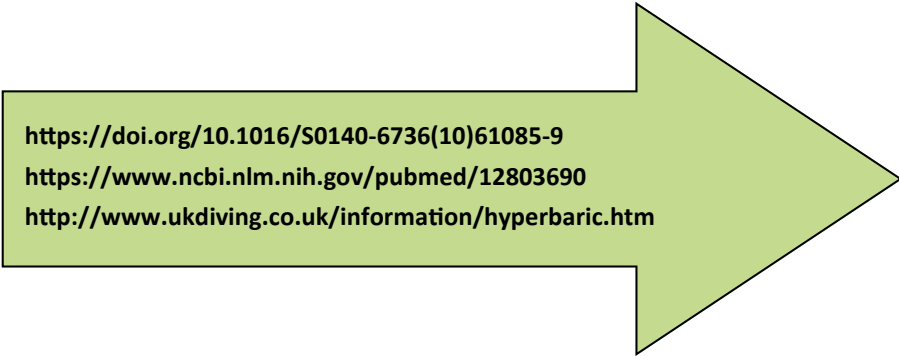


Decompression illness SOP

Further reading



[https://doi.org/10.1016/S0140-6736\(10\)61085-9](https://doi.org/10.1016/S0140-6736(10)61085-9)
<https://www.ncbi.nlm.nih.gov/pubmed/12803690>
<http://www.ukdiving.co.uk/information/hyperbaric.htm>



Related SOPs

- Spinal injury SOP
- Prehospital Emergency Anaesthesia SOP

Definition

Intravascular or extravascular bubbles that are formed as a result of a change in environmental pressure. The term DCI covers both:

1. *Decompression sickness*— Rapid reduction in environmental pressure causes in-situ bubble formation from dissolved inert gas
2. *Arterial gas embolism*— Barotrauma causes alveolar or shunted venous gas emboli to enter the arterial circulation

Whilst it can rarely occur in other settings, this SOP focuses on DCI in the context of diving.

Mild	Moderate	Severe
Fatigue	Joint pains	Swelling
Headaches	Confusion	CVS collapse
Nausea	Skin rash	Reduced consciousness
Itch	Tingling/numbness	Hemiplegia/paralysis
Visual disturbance	Coughing/SOB	Seizures

If in doubt.....discuss

BHA National Diving Accident Helpline 07831 151523

Decompression illness SOP

Initial management of DCI is supportive and should follow standard ABC protocols. Remember to consider and exclude other serious medical presentations such as acute coronary syndromes or diabetic emergencies.

A

Airway management as required
High flow oxygen (irrespective of saturation reading)
Consider likelihood of spinal injury and manage as appropriate

B

Exclude tension pneumothorax
Consider thoracostomies if positive pressure ventilation required

C

Fluids— Give 10ml/kg 0.9% saline and reassess
Other cardiovascular supportive care as appropriate
Maintain patient in a horizontal position

D

Analgesia as required
Antiemetics as required
Anticonvulsants as required

AVOID ENTONOX

E

Avoid hypothermia
Check BM
Document full neurological assessment

Definitive management for suspected DCI should be provided at one of the UK's hyperbaric treatment centres. Patients are usually transported to these centres by air, but **where symptoms are only mild, this may be better facilitated by the coastguard rather than the GNAAS critical care team.**

Casualties should be flown at no more than 1000 feet
(ideally <500 feet) above the departure point



Decompression illness SOP

The category 1 facilities at Hull and Wirral both have multi-place chambers that are capable of supporting the treatment of patients who may require resuscitation and critical care.

Hull

BUPA Hospital
Lowfield Road
Anlaby
Hull
HU10 7AZ
Telephone: 01482 659471

**4 mile secondary
transfer required**

Helipad at Castle Hill Hospital
Telephone: 01482 875875
Grid ref: TA 027 326

Wirral

Emergency Services Training Centre
2 East Street
Wallasey
Birkenhead
CH41 1BY
Telephone: 0151 6488000
0151 6383897

Grid ref: SJ 325 905
Helipad on-site

Handover and documentation should detail:

- Location of dive
- Number of dives
- Length and maximum depth
- Times spent at different depths
- Rate of descent and ascent and use of safety stops
- Gases and equipment used
- Surface interval
- Treatment provided