



### Decompression sickness. (Bends or Caisson disease)

Decompression sickness (DCS) has been divided into two categories

#### **Type I** (Mild form of DCS)

Joint pain, tissue swelling, skin itching and weakness.

#### **Type II** (Serious form of DCS)

- Pain at head, neck and body. Seizure, hemiplegia
- Visual symptom and headache, substernal pain, cough, dyspnea. (trouble in breathing)

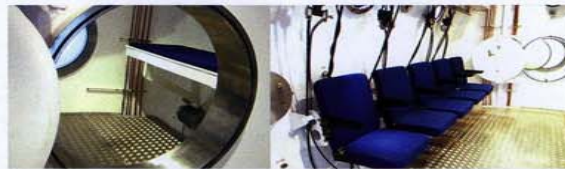
#### Decompression sickness Treatment.

- Early recognition and treatment of DCS is essential for successful treatment. Type II DCS needs recompression treatment as soon as possible.



### Design description of Vachira Phuket Hospital Hyperbaric Chamber

- > Multiplace chamber, two compartments, 14 seats
- > Cylindrical hyperbaric oxygen treatment unit.
- > Overall size Length 6,880 mm Width 2,524 mm
- > Design pressure 560 k-Pa(g)
- > Two doorways, view port and camera port
- > Internal/external PA system communication , Internal auxiliary head set, electronic sound powered phones.
- > BIBS and HOOD oxygen with overboard exhaust.



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*Phuket* is well known for being one of the most magnificent places for diving in the world. Studies show that because more and more people are taking up diving as a leisure activity, sicknesses relating to diving activities are increasing.



The Ministry of Public health has provided the first Hyperbaric chamber in Phuket, located at Vachira Phuket Hospital. This is used for accidents which occur during diving and is also used to treat other illnesses which require Hyperbaric Oxygen therapy. The chamber has been in 4 November 2002



The division of Underwater and Hyperbaric Medicine at Vachira Phuket Hospital are on duty all hours for Decompression illness without delay for the best chance of recovery with no residual damage.

Nursing staff are present inside the chamber take care the patient for the emergency life support. The chamber is committed to promote safe diving by providing education program for divers, fitness to dive, physical evaluation, counseling for diving related health issues. And treat common diving problems such as barotraumas, marine animal injury or poisoning etc.



**Indication of additional treatment by Hyperbaric Oxygen therapy from Undersea and Hyperbaric Medical Society (UHMS)**

1. Air or Gas Embolism
2. CO Poisoning and Smoke Inhalation
3. Clostridial Gas Gangrene
4. Crush Injury : Compartment Syndrome, Acute Traumatic Ischemia
5. Decompression Sickness
6. Problem Wound - Diabetic ulcer  
- Decubitus ulcer (Bed sore)  
- Vascular disease
7. Exceptional Blood Loss

8. Necrotizing Soft tissue Infection
9. Refractory Osteomyelitis
10. Compromised Skin Graft or Flap
11. Radiation Injury
12. Thermal Burn
13. Intracranial Abscess



**Pulmonary Over inflation Syndrome (POIS)**

This can occur during diving when an ascent happens too rapidly causing the lungs to over inflate resulting in damage to the lung.

**POIS can result in;**

1. Interstitial Emphysema
2. Pneumothorax
3. Arterial gas embolism. The symptom usually only last for periods of 10 minutes.
4. Depending on the symptoms : patients have been divided into two groups.

**Group 1 Neurological symptoms :** Can range from changes in mood to immediate unconsciousness

**Group 2 Cardiac symptom :** Apnea, loss of consciousness and cardiac dysrhythmia or arrest.

**Definitive treatment** of any gas embolism require a recompression facility.

Miscellaneous Pressure Effects.

- Tooth squeeze, Mask squeeze and G-I squeeze

