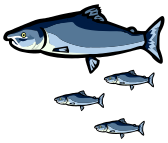

MARINE HAZARDS AND ENVENOMATION

The ocean provides some of the most enjoyable activities for the traveller, but it is wise to be prepared for potential hazards. The following are some of the most common problems faced by the traveller heading into tropical or sub-tropical regions.

SEA-SICKNESS

This can be distressing and make travel very uncomfortable.

Basic Guidelines

- Eat light food and maintain adequate water intake.
- Ginger (in diet or tablet form) reduces the stomach's responses.
- Where possible keep active and monitor the horizon.
- Acupressure wristbands are effective for some.

Drug prevention (from mild to strong)

- Kwells or Travacalm (Hyoscine)
- Cinnarizine (not presently available in Australia)
- Phenergan or Stemetil

For best results all drug remedies should be taken 1-2 hours prior to the sea voyage.
For children Phenergan is effective providing the resulting drowsiness is not a problem.

MALARIA AND INSECT PROTECTION

You will need malaria prevention treatment if you will be diving in certain areas of the tropics or subtropics. Although the mosquito that transmits malaria bites in the evening, daytime-biting mosquitoes also can cause diseases such as Dengue Fever, Japanese Encephalitis and Yellow Fever. You should use a waterproof insect repellent any time mosquitoes are present.

IMMUNISATIONS & OTHER TRAVEL MEDICINE CONCERNS

Regardless of the purpose of your trip, you should have your immunisation needs evaluated by a travel medicine provider well in advance of your departure date. Divers may have special immunisation concerns. Typhoid vaccine or Hepatitis A may be recommended if you will be diving in potentially polluted waters. If you will be diving in freshwater bodies, you may be at risk for schistosomiasis, caused by parasites that live in certain freshwater snails. You should also be alert to the possibilities of sunburn, hypothermia (low body temperature), motion sickness, injuries from boat propellers, and drowning.

MARINE STINGS AND SPIKES

It is the remarkable marine flora and fauna that attract most people to the underwater world, but certain marine life carry with them health hazards. Marine envenomation is a common dive- or swim-related injury. From the graceful stingray and colourful scorpion fish, to the spiny sea urchin and dramatic Portuguese man-of-war, these creatures represent a painful if not life-threatening hazard to the unwary diver or swimmer. While there are many stinging organisms, the result of running into one of them can be divided in to 2 categories:

PUNCTURE WOUNDS: *stonefish, stingrays, sea urchins, scorpion fish, cobbler*
The spines of these animals contain venom-filled glands that cause extreme burning pain and often tissue discolouration and swelling when they puncture the skin.

First Aid: Lay victim down, elevate affected limb, wash wound and gently remove spine if possible, immerse both limbs (good limb provides safety check) in hot water up to 45°C for 30–45 minutes, treat for shock. X-rays may be required to help with the removal of imbedded spines, particularly in the hand or foot. All puncture wounds have the potential to cause infection.
Prevention: Wear thick-soled boots/shoes if reef-walking, avoid lying or standing on bottom if diving.

RASH: The second broad category of marine envenomation is that which causes a painful rash including blisters or hives. *Fire coral, anemone, Hydroids, certain sponges, Box jellyfish, Portuguese man of war, etc* contain millions of stinging cells called nematocysts. The Portuguese man-of-war and the box jellyfish can kill an adult within minutes. The nematocyst venom gland is triggered by several factors, including mechanical force and fresh water.

First Aid: Do not attempt to physically remove jellyfish tentacles or rinse them with fresh water until they are completely deactivated with vinegar, then try ice packs, analgesia. Treat for shock. After deactivation, the nematocysts may be removed by shaving or by the use of adhesive tape. Topical steroid creams can help ease the inflammation.
Prevention: Stinger suits

For more detailed information on "Dangerous Marine Animals", Sea snakes, Sharks, Blue ringed Octopus etc Refer to standard Diving Texts.

SCUBA DIVING

Prior to travel have a Diving Medical and take a recognised Scuba Course or ensure that the Dive School at the destination is of a high standard. Inspect all equipment carefully prior to each dive and consider taking your own regulator or buoyancy control device with you. **Always dive with a trained buddy**.

DECOMPRESSION SICKNESS (DCS)

Decompression Sickness (DCS) or the "Bends" can be defined as too much nitrogen being released from body tissues too quickly. The risk is increased with a greater number of longer deep dives. The deeper you dive, the more you are breathing principally nitrogen and oxygen. At about 30 metres this amount of dissolved nitrogen can make you feel 'drunk'. By 60 metres this 'rapture of the deep' makes the dive very dangerous. Be aware of your limitations and avoid excessively deep dives (more than 30metres) and be aware of the following conditions:

- ♦First 1-2 dives of the holiday
- ♦Low aerobic fitness
- ♦More than 2 dives in 1day
- ♦Diving at altitude
- ♦Do not dive while pregnant
- ♦Extremely cold water
- ♦Excess body fat
- ♦Cigarette smokers
- ♦Older divers (>40y.a)

To further reduce the risk of DCS maintain adequate fluid intake throughout the dive day, and try to obtain optimal sleep and avoid alcohol the night before diving. Use of dive tables are recommended and the possible need for a decompression stop on the way to the surface. Symptoms include rash and itching joint pain – particularly in the elbows and shoulders (hence the bends),numbness and weakness. Treatment requires oxygen therapy and evacuation to a hyperbaric oxygen treatment centre.

BAROTRAUMA

Pulmonary Barotrauma while ascending can be life threatening. Diving students are taught never to hold their breath and to 'blow bubbles' while rising to the surface. Breaking these rules converts the lungs into a 'balloon' that will expand as you ascend. Air can be forced into the skin, chest, and abdomen. Results may be as minor as mild skin irritation or as significant as a collapsed lung. More disastrous are 'air emboli' that lodge in the brain or other vital organs. Symptoms are those of acute stroke: confusion, numbness, weakness, or loss of consciousness. Treatment requires oxygen and evacuation to a hyperbaric oxygen treatment facility.

Pulmonary Barotrauma and Decompression Sickness are two of the greatest risks to the Scuba Diver and can be prevented by:

- adequate dive training
- controlled slow ascents without breath holding
- using a gauge to monitor air consumption

Ears and Sinuses: Inner Ears, sinuses and the gastrointestinal tract can all be "squeezed" – even in water as shallow as 1 metre. You should 'equalise' these pressures early and often while descending. Do not dive with any significant upper respiratory tract infection (cold), allergy causing nasal blockage or sinusitis. Decongestants are not recommended as they may stop being effective while underwater causing "reverse squeeze" on ascent. Make sure you can pop your ears before diving and breath clearly through your nose. It only takes one dive to appreciate the pain and potential hazard of diving with nasal or sinus congestion. If prone to outer ear infection (swimmer's ear) then use Aquaear to dry the ears after each dive and consider taking topical antibiotic eardrops (sofradex, kenacomb) in your first aid kit if diving in a remote location.

FLYING AFTER DIVING

Flying ('ascending) too soon after diving carries the risk of decompression sickness. This is particularly true if you fly after diving while at high altitudes. The following guidelines are recommended:

- 12 hours after a non-decompression dive
- 24 hours after a dive requiring a decompression stop
- 24 hours for divers who make daily, multiple, dives for several days