



**Queensland
Government**
Queensland Health

Public Health

Division of the Chief Health Officer

PUBLIC HEALTH ADVISORY EMERGENCY RESPONSE WORKERS

The main physical health risks for emergency responders are injury (including from falls and snake bites), superficial skin infections, sunburn and, in following weeks, mosquito-borne infections.

All responders should avoid:

- unnecessary direct contact with floodwater
- wear appropriate personal protection including sturdy enclosed footwear, loose long sleeved shirts and trousers, sunscreen, hat and sunglasses, and
- practice high levels of personal hygiene, washing or sanitising hands frequently and especially prior to eating (or smoking, should they smoke).

If any personnel sustain an injury, first aid should be applied and medical attention sought as usual.

Tetanus Vaccination

It is important for everyone to know their tetanus vaccine history and to stay up to date. Due to high rates of vaccination and good wound management, tetanus is rare in Australia and historically, has not been a problem after floods or other natural disasters.

Vaccination against tetanus is part of the National Immunisation Program, involving a primary course of three doses of vaccine (usually given at 2, 4 and 6 months of age) and boosters at 4 years, 15 years and 50 years of age. Boosters used to be given every 10 years, so some adults will have had many doses of vaccine. Some adults will also have received a tetanus booster if they have had the booster for pertussis (whooping cough), which also contains tetanus vaccine.

The public health advisory on tetanus (<http://www.health.qld.gov.au/cho/documents/phadvisory-tetanus.pdf>) provided for SES personnel applies to all responding agencies. It contains detailed advice about assessing each individual's level of protection against tetanus and identifies who might need a booster. Generally, most members of the community will have had three doses of tetanus-containing vaccine in childhood, and most adults will have had one or two doses of tetanus vaccine, either as a routine booster or following an injury. It is anticipated that most personnel should not need a booster.

Some adults are unsure of their vaccination status. They should consult with their health care provider for vaccination histories. Alternatively, the emergency response workers can contact 13 Health, who will assist the individual determine if they need tetanus vaccination.

Adults who sustain injuries deemed to be tetanus prone should receive a booster dose of tetanus vaccine if it is more than 5 years since they had their last dose. Wounds that favour the growth of tetanus include open fractures, deep penetrating wounds, bites, splinters and wounds contaminated with soil, dust or manure.

If any volunteer has not completed a three dose primary course of tetanus vaccination, they will not be made immune by a single dose of tetanus vaccine. In this situation, the volunteer should consult their usual health practitioner to be brought up to date and discuss this matter with their deployment agency. A full three dose course takes a minimum of two months.

If other staff or volunteers have had a three dose primary course of tetanus vaccination but have not had an adult booster, then a booster is recommended prior to deployment.

Hepatitis A

Hepatitis A is not a risk for emergency responders, even if they do come into contact with sewage-contaminated floodwaters. Hepatitis A virus is only present in sewage if hepatitis A is circulating in the community – and it is not.

Hepatitis A is rare in Queensland (39 cases reported in 2010 for the whole state) and most cases are acquired overseas by unvaccinated travellers.

The National Health and Medical Research Council does recommend hepatitis A vaccination for sewage workers, as a precautionary measure, as these workers have long term regular exposure to concentrated sewage. This is not the case with emergency workers and thus does not negate the advice above.

Mosquitoes

Mosquito-borne infections may emerge as a problem once mosquito breeding escalates. Ross River virus and Barmah Forest virus infections both cause inflammation and pain in multiple joints, fever and rash. Personnel who become unwell with such symptoms should seek medical attention, although there is no specific treatment.

A number of different mosquitoes that transmit these viruses, and breeding sites include salt marshes, permanent bodies of fresh water, and containers close to homes and human activity.

To prevent mosquito bites, Queensland Health recommends tropical strength repellent containing the chemical DEET (diethyltoluamide or diethylmethylbenzamide) or repellents containing the chemical picaridin. Users should always read the label and follow the manufacturer's guidelines regarding re-application and use. Personnel should also sleep in screened areas or use mosquito nets; wear long, loose clothing outdoors, use cockroach surface sprays indoors in dark places such as behind cupboards and under beds; and use other mosquito control products such as coils.

Dengue will not occur unless a person acquires it in an area affected by dengue (currently Townsville and tropical countries overseas). Queensland Health conducts surveillance for dengue and will advise response agencies and communities if there is a risk of dengue in flood-affected areas of central and south-west Queensland. At this time, there is not.

Foot care

In the event of prolonged contact with water, the most likely foot conditions are macerated skin (softening and whitening) and infections, including fungal infections.

The following advice will help prevent and treat foot problems:

- when possible, air-dry and elevate your feet as often as possible
- exchange wet shoes and socks (non-cotton socks are best) for dry ones as often as possible and at least daily
- thoroughly clean and dry feet after showering
- don't wear socks when resting or sleeping
- don't wear overly restrictive footwear
- check feet at least once a day for infections or other symptoms
- obtain medical advice if there is evidence of infection or other concerning symptoms

There have been queries about the occurrence of 'trench foot'. Immersion foot occurs when the feet are constantly wet for long periods of time. The most well known and severe type of immersion foot is trench foot. Symptoms include tingling, pain and swelling. The development of trench foot typically requires both wet and cold conditions and is unlikely at water temperatures 18 °C and above. A warm water version of trench foot can occur and is known as Paddy's foot. The development of Paddy's foot usually requires constant foot immersion in water for 2 days or more. Immersion foot is unlikely in Emergency Responders if the above advice is followed.

Management of abrasions and simple cuts

Rinse the abrasion or wound under flowing clean water; remove any debris using clean or sterile gauze (should be some in first aid kits). Use an antiseptic such as Betadine. If there is embedded dirt, Savlon may be used as it contains an antiseptic and a surfactant to help remove debris.

Don't scrub at embedded dirt – if there is a lot, seek medical advice. Cover the cleaned wound with an appropriate non-stick sterile dressing. Change the dressing according to the manufacturer's instructions.

For further information

A range of useful fact sheets on preparing for and recovering from disasters is available at:

<http://www.health.qld.gov.au/healthieryou/disaster>