

Flooding related health dangers

Serious and widespread flooding are becoming a common fact of life, and although each situation is different the health risks associated with floods tend to be quite similar.

These are the risks which would normally be present in tropical areas that have been flooded through heavy rains, hurricanes or tsunamis. They are written more from the perspective of those offering aid and support rather than from the viewpoint of the local population.

The two main problems will normally be:

food and water-borne diseases such as cholera and dysentery

mosquito-borne diseases such as malaria and dengue fever

These are some of the specific health risks emergency personnel should be aware of:

Diarrhoea and dysentery - take extra precautions to boil water and keep clean water or other safe drinks with you. Eat only hot recently prepared food or take your own supply of food with you. Wash your hands frequently or use alcohol wipes where this is not possible.

Cholera - there is a substantial risk that cholera, normally present in many areas regularly affected by floods e.g. south Asia, might spread and reach epidemic precautions. Follow the precautions above.

We also recommend that those travelling to affected areas should *consider* having the Cholera vaccine, which also gives some protection against other forms of diarrhoea (see sheets on cholera and the vaccine).

Typhoid fever is found in virtually all tropical areas where flooding occurs. Again follow the advice above but also make sure your Typhoid immunisation is up-to date.

Malaria - there is a greater risk of malaria during and especially following floods, because mosquitoes breed in areas of stagnant water, unless large amount of sea water are present. All travellers to affected areas must take extra precautions. This includes using DEET insect repellent, sleeping under insecticide-impregnated mosquito nets and taking appropriate malaria prevention tablets. Also consider taking a standby treatment kit as in some areas local supplies may not be available. The exact anti-malarial to use will depend on where flooding has occurred. From the point of view of treatment either Malarone or Coartem (Riamet) are usually the best options. See Malaria sheets and country specific sheets for more details.

Dengue fever is rapidly increasing its worldwide spread and usually becomes commoner after floods in areas where it is already occurs. Be aware of the symptoms and the importance of protecting yourself from mosquito bites. See Dengue Fever for more details. Other local mosquito-borne diseases e.g. Japanese encephalitis and Chikungunya fever will depend on the area. See specific sheets.

Leptospirosis is spread through the excreta of infected rodents especially rats. It becomes more common during and after floods, especially for aid workers, including water and sanitation engineers, or others involved in direct clean-up operations. It is spread mainly through cuts and abrasions in the skin. See Leptospirosis for more details. Leptospirosis is also found in temperate regions.

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Hepatitis A - Outbreaks of hepatitis A may become more common after flooding so make sure your vaccines are up to date.

Skin conditions become more likely in flood conditions and any existing skin problems such as eczema can become more easily infected. So can infections in the ear canal if contaminated water enters the canal and is not drained immediately.

Tetanus is a risk because of the increased danger of cutting the skin or stepping on sharp objects. Make sure you are up to date with your Tetanus immunisations.

Rabies - in flooded areas animals such as rats and dogs occasionally behave more erratically, so Rabies immunization is advised if there is time to complete a course before travelling. If you have had a primary course of 3 injections in the past you would not normally need a further booster unless working with animals or being in a very high risk situation.

Polio is still found in some countries and theoretically floods could increase its transmission. This is especially the case in South Asia.

In temperate areas where flooding occurs risks of disease, especially those that are carried by mosquitoes are less, but hypothermia from exposure can be an additional problem.

Although the media flags up the likelihood of severe outbreaks of disease after flooding, this very often does not materialize, and aid workers, providing they take sensible precautions are not usually subject to severe health risks.

For more specific information please contact us.

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