

## WEIL'S DISEASE; A CAVE DIVING HAZARD

Weil's disease (or "Leptospirosis") is caused by a bacterium called *Leptospira*. It is often present in the urine of rats and farm animals; this gets into watercourses where the bacteria can survive for up to 6 months. Infection is mainly through cuts to the skin or via mucous membranes. Initial symptoms may be similar to many of those associated with influenza. Treatment is by a simple course of antibiotics. However, if the disease goes untreated, the symptoms may progress to liver, renal or other organ failure which can prove fatal in some cases.

Fortunately the disease is quite rare but cavers (and especially cave divers) form a high risk group. Therefore it is important that ALL cave divers should be aware of:

1. The characteristics of sites where infection may be likely.
2. The main ways infection occurs.
3. The precautions which can reduce the risk of infection.
4. The symptoms which may suggest that infection has occurred.
5. The importance of getting medical assistance if an infection is suspected.

Comprehensive information is available via <http://www.british-caving.org.uk> (the BCA's website). Scroll down the green list on the left and click on "Publications & Information", then click on "Weil's disease". The main precautions for cavers are wearing gloves to prevent cuts and avoiding wet caving if the skin has already been cut. However cave divers may be well advised to mitigate further against catching this disease as it's very difficult to avoid ingesting water when rinsing masks or swapping breathing regulators etc. Possible precautions, which may lower the risk of *Leptospira* infection in divers at likely sites (depending on the specific situation), might include:

- \* Rinse out masks with imported (clean) water rather than using the water from the sump.
  - \* Test breathing regulators in a large bowl of imported clean water rather than in the sump pool.
  - \* Minimise swapping regulator second stages (as far as safe gas management allows).
  - \* Consider using a full face mask.
  - \* Try to dive flood risings shortly after they have resurged rather than when static for long periods.
  - \* Consider chemical sterilization of static sump pools in advance of diving.
- etc

The important thing is to have a good understanding of the nature of this disease, as this will inform the best choice of precautions from the above list (or indeed suggest other precautions not listed here). None of these mitigating actions is guaranteed to prevent infection altogether. If you think you might have caught Weil's disease, make arrangements to get medical attention immediately. Be prepared to explain why you think you may have contracted Leptospirosis, as many GPs will have little or no experience of the disease. Showing your doctor a print out of the BCA document may prove helpful, as will an explanation of your case history. Any unnecessary delay in getting treatment may have serious consequences. Finally, also be aware that there are some sites where diving is perhaps best avoided altogether.

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