

Parasite infection has sting in the tail

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(Medical Xpress) -- Infections from certain parasites can compromise the immune system, leaving it less able to fight other diseases.

Research into the [tropical disease](#) snail fever could help scientists better understand why, in areas where the infection is endemic, vaccines for other conditions may not be fully effective.

It could also impact on development of vaccines for snail fever, which is caused by a [parasitic worm](#) contracted from water and affects millions of people, especially children, in developing countries.

In the first study of its kind, scientists from the University of Edinburgh examined the immune systems of people in parts of rural Zimbabwe that are endemic for snail fever.

People who had developed [natural resistance](#) to snail fever over years of exposure to the disease were compared with people from the same area who remained infected by the parasites.

They found that in infected people, overall immunity was compromised, with reduced levels of a cell type that helps the body remember infections after first being exposed to them, and prevent repeat episodes of disease.

Lower levels of these cells in the blood could make affected individuals less capable of fighting other infections, such as HIV and malaria.

The finding may also help explain why people exposed to repeat infection with snail fever are slow to develop [protective immunity](#) against it.

Scientists say cell levels in people affected by snail fever may be reduced because the immune system is suppressed as a way to avoid exacerbating disease.

This may be driven by the immune system itself, or by the parasite.

The joint study with partners in France and Zimbabwe, published in *Scientific Reports*, was backed by the Wellcome Trust, [World Health Organisation](#) and Thrasher Research Funds.

"This is valuable insight into a disease that affects millions, revealing its impact on long-term [immune health](#)," said Dr Francisca Mutapi, School of Biological Sciences.

Provided by University of Edinburgh

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