Edinburgh and East Feed

Edinburgh scientists in malaria breakthrough

Biologists in the capital have discovered that malaria parasites change their behaviour to improve their chances of surviving treatment.

19 May 2010 08:45 GMT

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Edinburgh: Scientists hope their findings could improve disease control. Pic: © STV

Scientists in Edinburgh believe they may have worked out why malaria is able to resist drug treatment.

A study in the city has discovered malaria parasites can detect when they are being threatened and change their behaviour to survive. It is now hoped the study could lead to better control of the disease.

Malaria is caused by a parasite called Plasmodium and is spread through the bites of infected mosquitoes and kills around a million people every year. Some of the parasites multiply in the blood, while others change into a specialised transmission form to enable the disease to spread.

However, the researchers found that when the disease was exposed to low levels of anti-malarial drugs, the balance of the illness's development was upset. The parasites respond by increasing their chances of survival, producing fewer transmission forms but replicating faster.

Dr Sarah Reece, from the University of Edinburgh's school of biological sciences, said: "This study uncovers a new way that parasites are able to resist the effects of drugs. This is also likely to have important implications for human disease control strategies.

"If drugs push parasites into producing more replicating stages, which cause the symptoms, then this may lead to more serious illness."

It is now hoped the findings could be used to develop more effective methods of controlling blood borne diseases in humans.

The research findings are published in the journal Proceedings Of The Royal Society B.