

# Disease Information Sheets

## Onchocerciasis (River Blindness)



### Introduction

Onchocerciasis is a parasitic worm infection spread from person to person by *Simulium* blackflies. Blackflies live and breed near fast flowing rivers and streams, and the disease causes blindness as well as skin disease. The worldwide burden of onchocerciasis has been greatly decreased in recent years by highly successful public health programmes to control blackflies and widely administer anti-parasitic drugs to affected populations. The intensity of infection (the number of worms per person) is related to the number of infectious blackfly bites, therefore people who live for longer periods in blackfly areas are at higher risk than people who are passing through.



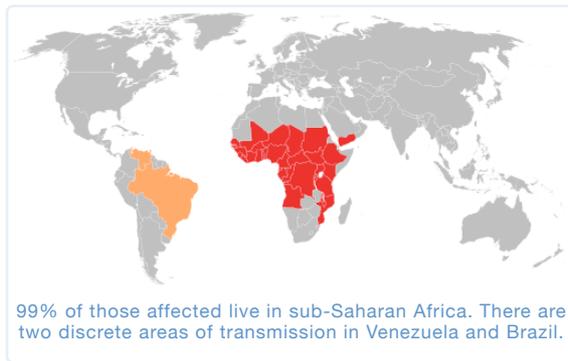
Blackflies are about 3-7 mm long

### How common is it?

At least 25 million people are infected and 123 million people live in areas that put them at risk of infection. 300 000 people have been blinded by the disease and a further 800 000 have a visual impairment. Nearly 99% of people affected live in Africa, with the remaining people in Yemen. Of six countries in the Americas historically affected, transmission is now confined to two areas of Brazil and Venezuela.

### Are travellers and/or expat workers at risk?

**Only if you're bitten repeatedly.** Onchocerciasis in recreational travellers is rare. The infection is only transmitted in remote rural areas, and several bites are often required for an infection to establish. People most at risk are those staying for longer periods in transmission areas - for about three months or more. Adventure travellers, aid workers, exploration geologists, field researchers etc. are most likely to have the sustained or intense exposure to blackflies required to develop disease.



### What is the disease?

Many people do not have any symptoms. People who do have symptoms will have a skin rash that is usually itchy, eye disease and/or nodules under the skin. It can take 10-20 months after being bitten before larvae can be found in the skin or eye - it is these larvae that cause a person to feel unwell.

The serious consequences of onchocerciasis develop if a person is infected for many years, and are caused by the body's immune system reacting to dead and dying larvae. The skin can change colour and lose elastic tissue, and inflammation in the eye can cause the cornea to become opaque over time. The optic nerve can also be affected, leading to loss of peripheral vision and eventually blindness.

### How is it treated?

The larvae can be killed with anti-parasitic drugs. The adult worms that produce the larvae are not killed however, and so regular treatment must continue until the adults die of old age - usually after about ten to fifteen years. New therapy that attacks the adult worms is becoming available. Before treatment, it is important to check that you are not also infected with *Loa loa*, a similar parasite sometimes found in the same areas as onchocerciasis. The treatment for onchocerciasis can cause serious side effects if there is concurrent loiasis.

### How is it prevented?

There is no vaccine available, and no preventative drugs. Blackflies bite during the day, and you should ensure that you use an insect repellent containing DEET on exposed skin, wear long sleeves and trousers, and treat your clothing with permethrin.

#### RIVER BLINDNESS

Use insect repellent containing DEET  
Wear long sleeves and trousers  
Treat clothing with permethrin  
Tell your doctor if you develop itchy skin or sore eyes up to two years after return from a risk area



#### NEED MEDICAL ADVICE FOR YOUR WORK OR TRAVEL IN REMOTE AREAS?

Sentinel Consulting provides support services for people travelling and working in remote or resource-poor locations. Services include:

- Pre-travel medical screening and advice
- Risk management including risk assessment, emergency response planning and medical facility inspections
- 24-hour medical support from wilderness specialist doctors
- Operational support including call-ins, incident support and liaison
- Medical bags (prescription and non-prescription drugs) and first aid kits

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