



Onchocerciasis (River Blindness)

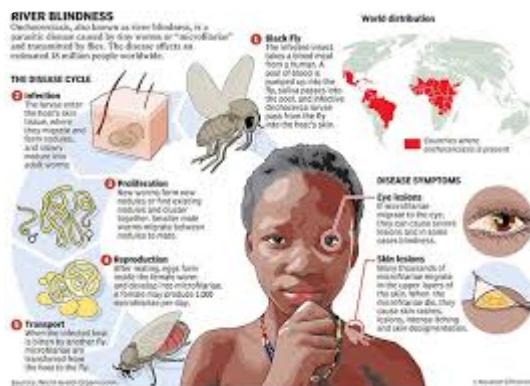
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Context

- Niger has been officially declared by its government and **verified by the World Health Organization (WHO)** as the **first African country to eliminate onchocerciasis**, also known as **river blindness**.
- This achievement marks a significant public health milestone in the fight against **neglected tropical diseases (NTDs)** in Africa.

What is Onchocerciasis?

- **Cause:** Parasitic infection by the **filarial worm *Onchocerca volvulus***.
- **Transmission:** By **infected Simulium blackflies**, which breed near **fast-flowing rivers and streams**.
- **Endemic Regions:** Over **99% of cases** occur in **sub-Saharan Africa** and Yemen; small pockets exist in **Brazil–Venezuela border**.
- **Significance:** Second leading **infectious cause of blindness**, after trachoma.



Key Features

1 Pathology

o Chronic infection with microfilariae causes **intense inflammation**.

o Leads to **severe itching, disfiguring skin changes** ("leopard skin"), and **progressive eye damage**.

o Adult worms live **10–15 years**, necessitating **long-term treatment**.

2 Symptoms

o **Skin:** Itching, rashes, thickening, depigmentation

o **Eyes:** Lesions, impaired vision, potential **permanent blindness**

o **Nodules:** Firm subcutaneous lumps containing adult worms

o **Children:** Early infection linked to **epilepsy** in some regions

3Community Impact

o Blindness and disfigurement reduce **productivity**, increase **poverty risk**, and affect **quality of life**.

Treatment

- **Ivermectin (Mectizan):**
- Administered **once or twice yearly** for 10–15 years to interrupt transmission.
- Mass drug administration and vector control programs are crucial for **elimination**.

Significance of Niger's Achievement

- **Public Health Milestone:** First African country to eliminate river blindness.
- **Global NTD Goals:** Supports WHO's **neglected tropical disease roadmap**.
- **Model for Other Endemic Countries:** Demonstrates effectiveness of **mass drug administration, community engagement, and surveillance**.