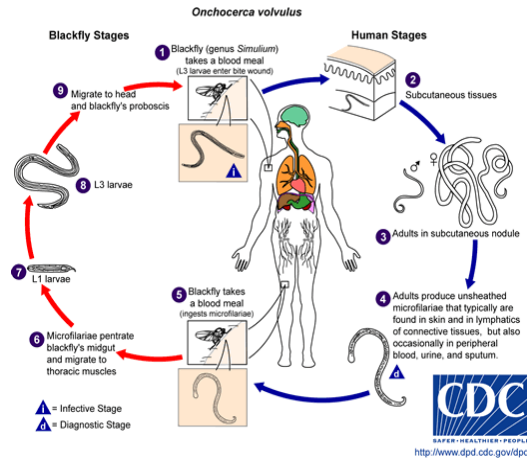


Review of Onchocerciasis



- 1 of 13 Neglected Tropical Diseases (NTDs)
- Prevalence: 99% of cases occur in Africa, 1% occurs in South America
 - Affects over 37 million people and could affect 90 million
- Causative Agent: *Onchocerca volvulus*
 - Complex life cycle (see diagram) - L₁, L₂, L₃, Adult
 - Life span up to 15 years, females can reproduce up to 9 years
 - Microfilariae cause the symptoms of disease
 - Endosymbiotic bacteria: *Wolbachia* genus
- Vector: *Simulium* genus
 - Habitat: fast moving water
 - Over 2000 species described, 1.5% are vectors
 - Vital to transmission to humans through saliva
 - *Onchocerca* – *Simulium* Complex: certain strains of *Onchocerca* may be transmitted by certain species of *Simulium*
- Disease
 - 2 forms: Savanna & Forest - Patients with savanna form have higher prevalence of blindness
 - Symptoms: Chronic itching, pain, skin lesions – nodules, hanging groin, depigmentation, lymphadenopathy, eye problems
 - Diagnosis: Commonly diagnosis through skin snips or DEC patch test
 - Treatment: Ivermectin (Mectizan) – very non-toxic and given by non-medical personnel
- Prevention
 - Onchocerciasis Control Program (OCP) – West Africa
 - Onchocerciasis Elimination Program of Americas (OEPA) – highly successful
 - African Programme for Onchocerciasis Control (APOC)
 - Covers 115 million people
 - Concludes in 2015
 - These programs use education, Ivermectin distribution, and application of insecticides