NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

JOSH STEIN • Governor
DEVDUTTA SANGVAI • Secretary
DEBRA FARRINGTON • Deputy Secretary for Health
KELLY KIMPLE • Director, Division of Public Health

Date: 1 October 2025
To: North Carolina Clinicians
From: Emily Herring, DVM, PhD, Public Health Veterinarian
Subject: New World Screwworm Myiasis – Recommendations for Clinicians

Introduction
In light of the ongoing outbreak of New World screwworm (NWS) in Central America and Mexico and risk of introduction into the U.S., the purpose of this memo is to increase awareness and understanding of NWS myiasis among NC clinicians and to provide guidance for the diagnosis and management of suspect cases.

What is NWS?
NWS is a fly (*Cochliomyia hominivorax*) that lays its eggs in open wounds or on mucous membranes of warm-blooded animals, including livestock, wildlife, pets, and people. Livestock are most commonly affected. NWS eggs develop into parasitic larvae (maggots) that feed on living tissue and cause extensive, painful tissue damage at the site of the infestation.

NWS fly[1]

NWS larva[1]

Deer infested with NWS[2]

Current status of NWS in North America
NWS was previously eradicated from the U.S. in 1966 using biological control measures. Over the following decades, eradication efforts moved southward, ultimately eliminating the parasite from Mexico and Central America. However, since 2023, there has been a new outbreak of NWS affecting these regions, with cases reported in Costa Rica, Nicaragua, Honduras, Guatemala, Belize, El Salvador, and in Mexico as far north as 70 miles from the U.S.-Mexico border in Nuevo León. The current outbreak has primarily affected livestock, especially cattle, but human cases have also been reported. Only one human case associated with this outbreak has been reported to date in the U.S.; this case was reported in August 2025 in a patient who returned from travel to El Salvador. Local transmission of NWS has not been detected in the U.S. during the current outbreak, but USDA continues to work closely with Mexico on surveillance and control measures. While there is no immediate risk of infestation to residents of the U.S., clinicians should be aware of the risk of travel-associated cases during the current outbreak. Please

[1]https://www.cdc.gov/new-world-screwworm/hcp/clinical-overview/index.html
[2]https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm/new-world-screwworm-photo-gallery

review the information and resources below to aid in the diagnosis and management of suspect NWS myiasis cases.

Risk factors

- Recent travel to Mexico, Central America, or countries where NWS is endemic (Cuba, Haiti, the Dominican Republic, and countries in South America).
- Open wound(s), including small wounds (e.g., tick bite), or a medical condition that causes bleeding or open sores.
- Weakened immune system.
- Recent history of sleeping outdoors, especially during the day.
- Inability to swat away flies.
- Recent contact with or close proximity to livestock.

Signs and Symptoms

- Visible larvae or egg masses in a wound or body orifice with destruction of healthy tissue.
- Painful wounds, sensation of movement inside the wound, foul odor, bloody discharge, swelling.
- Secondary bacterial infections or sepsis.

Treatment

- Remove and kill **all** visible larvae and eggs by submerging them in 70% ethanol. This may require surgical removal.
- Re-examine treated lesions after 24-48 hours to confirm no live larvae remain.
- There are currently no drugs approved by the FDA for the treatment of NWS myiasis.

Specimen collection, diagnosis, and reporting

- Submerge larvae and eggs in a leak-proof container with 70% ethanol. If 70% ethanol is not available, 70% (or greater) isopropanol or 5% – 10% formalin are acceptable alternatives.
- Preserve at least 10 larvae in different stages of life, if possible, for identification at CDC.
- **If you suspect NWS myiasis in a patient, immediately notify the Communicable Disease Branch (CDB) at 919-733-3419.**
- Diagnosis of NWS myiasis can only be obtained by identifying the larvae. A bench aid is available to distinguish NWS larvae from other causes of wound myiasis. However, definitive diagnosis should be made through CDC's Diagnostic Parasitology Laboratory and is free of charge. CDB and the NC State Laboratory of Public Health (NC SLPH) will facilitate specimen submission to CDC.

Disposal of larvae and eggs

- Submerge all larvae and eggs in 70% ethanol in a leak-proof container. To dispose of any larvae and eggs that are not being preserved for identification, place the container into a zip-top plastic bag and seal it. Dispose of the zip-top bag in the trash.
- **Failure to kill and properly dispose of all larvae or eggs may result in the new introduction and spread of NWS flies in the local environment.**

Prevention

When spending time in countries with NWS transmission, especially in areas where livestock are located or housed:

- Clean and cover all wounds.

- Wear loose-fitting, long-sleeved shirts and pants to limit exposed skin.
- Use EPA-registered insect repellants.
- Avoid sleeping outdoors, especially during the day.
- Protect sleeping quarters with screens or bed nets.

Additional Resources

- About New World Screwworm Myiasis – CDC
  - English
  - Spanish
- Clinical Overview of New World Screwworm Myiasis – CDC
  - English
  - Spanish
- New World Screwworm - USDA
- Resurgence of New World Screwworm in the Americas – UT Health San Antonio ECHO Program
  - Webinar Recording – For Physicians, Healthcare Providers and Public Health Professionals
  - Webinar Recording – For Community Health Workers and Other Public Health Professionals