



Brown Tail Moth

The browntail moth is an invasive species found only on the coast of Maine and Cape Cod. This moth is an insect of both forest and human health concern.

The browntail moth caterpillar has tiny poisonous hairs that cause dermatitis similar to poison ivy on sensitive individuals. People may develop dermatitis from direct contact with the caterpillar or indirectly from contact with airborne hairs. The hairs become airborne from either being dislodged from the living or dead caterpillar or they come from cast skins with the caterpillar molts. Most people affected by the hairs develop a localized rash that will last for a few hours up to several days but on some sensitive individuals the rash can be severe and last for several weeks. The rash results from both a chemical reaction to a toxin in the hairs and a physical irritation as the barbed hairs become embedded in the skin. Respiratory distress from inhaling the hairs can be serious.

Caterpillars are active from April to late June. Hairs remain toxic throughout the summer but get washed into the soil and are less of a problem over time.

Tick Attachment and Tickborne Diseases

What is the transmission time for Lyme disease?

- Transmission of Lyme disease usually starts between 24-72 hours of tick attachment.
- In general, the longer the tick is attached the more likely it is to pass on an infection if it is carrying one.

What are the transmission times for other tickborne diseases?

- Powassan virus transmission may take as little as 15 minutes of attachment. This is documented in mice and may be different for humans.
- Anaplasmosis transmission may take less than 24 hours of attachment. This is documented in mice and may be different for humans.
- Babesiosis transmission may take less than 36 hours and increases with attachment time. This is documented in hamsters and may be different in humans.
- *Borrelia miyamotoi* transmission may happen within the first 24 hours of attachment. The likelihood of transmission increases with attachment time. Transmission time for *Borrelia miyamotoi* is documented in mice and may be different for humans.
- One tick can carry several diseases. The transmission times of multiple infectious agents carried by one tick is not yet known.

Will I be able to estimate the attachment time if I find an attached tick?

- People are not generally good at estimating attachment times.

- Transmission of infection is possible if you find an engorged tick.



A deer tick (*Ixodes scapularis*)

What diseases can the ticks found in Maine carry?

- The deer tick (*Ixodes scapularis*), also known as the black-legged tick, is the primary vector of Lyme disease, anaplasmosis, babesiosis, and *Borrelia miyamotoi* (a relapsing fever illness). Deer ticks are also a vector for Powassan virus, a potentially deadly form of encephalitis.
- American dog ticks (*Dermacentor variabilis*) can transmit Rocky Mountain spotted fever and tularemia. Ticks in Maine are not known to carry Rocky Mountain spotted fever or tularemia.
- The woodchuck tick (*Ixodes cookei*) can transmit Powassan virus.
- The lone star tick (*Amblyomma americanum*) can transmit *Ehrlichia chaffeensis* and *Ehrlichia ewingii* (which cause human ehrlichiosis), tularemia, and STARI. The lone star ticks are moving north and are not fully established in Maine.

Can one tick carry several diseases?

- Yes, a tick can carry and transmit multiple diseases at one time