

Fact Sheet

GYPSY MOTHS GET SICK TOO!

In June, those large, black, hairy caterpillars really begin to get your attention as they devour your trees, pelt your car with unpleasant droppings, and lounge about on your porch. I am describing the gypsy moth, of course, an annoying caterpillar because of its voracious appetite, large size, and abundance in many parts of eastern North America.

You might be surprised by the sudden appearance of dead gypsy moth caterpillars hanging on your trees. Read on if you are curious about WHY they died and HOW you can help control gypsy moths in your yard.

Why are there so many dead gypsy moth caterpillars in my yard?

Most of these caterpillars got sick and died after becoming infected with the gypsy moth fungus, the gypsy moth virus, or both. These "natural enemies" of the gypsy moth help control them without spraying.

Can a sick gypsy moth caterpillar recover to become a moth?

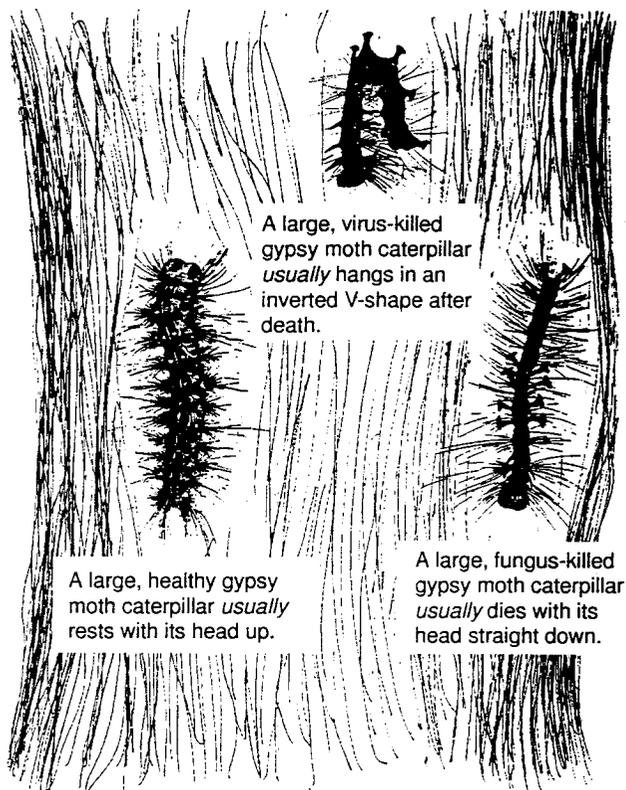
After a caterpillar gets sick, it will die before becoming a moth.

Can the gypsy moth virus or fungus make me sick?

No, neither will harm you, your pets, or plants. The virus infects *only* gypsy moth caterpillars. The fungus infects gypsy moth caterpillars and sometimes the caterpillars of closely related moths.

Where did the gypsy moth virus and fungus come from?

These natural enemies came from Europe and Asia, the original home of the gypsy moth. When the gypsy moth first arrived in North America over 100 years ago, its caterpillars were healthy and they gradually spread throughout our eastern forests. Although some natural enemies of the gypsy moth were introduced to help control these destructive caterpillars, the gypsy moth virus and fungus appeared unexpectedly. Gypsy moth caterpillars infected with the virus were first noticed in 1907, and those infected with the fungus were first found in 1989.



A large, virus-killed gypsy moth caterpillar *usually* hangs in an inverted V-shape after death.

A large, healthy gypsy moth caterpillar *usually* rests with its head up.

A large, fungus-killed gypsy moth caterpillar *usually* dies with its head straight down.

Is it normal for gypsy moth caterpillars to rest on tree trunks and houses?

Yes. Large and healthy gypsy moth caterpillars often rest in the shade during hot, sunny afternoons. You will notice them on tree trunks, with their heads aimed upward, ready to crawl back up the trees to eat again when it gets cooler. They become very active when disturbed.

How can I tell if the gypsy moth caterpillars in my yard are infected with the gypsy moth fungus?

You will not know they are sick until they are already dead. By mid-June, you may start to notice large, motionless gypsy moth caterpillars on tree trunks, firmly attached to the bark by their feet, and hanging with their heads down. They do not move when touched. Such caterpillars probably died from the gypsy moth fungus. Some may look beige and dusty as they release tiny fungal spores into the air. Over the next few days and weeks, the dead caterpillars become dry and stiff, fall to the ground around your trees, decompose, and release more fungal spores into the soil. These spores will infect gypsy moth caterpillars in years to come.

How can I tell if the gypsy moth caterpillars in my yard are infected with the gypsy moth virus?

Large caterpillars killed by the virus are found about the same time as those killed by the fungus. Virus-killed caterpillars, however, hang in an inverted-V shape, attached by some of their middle feet. Virus-killed caterpillars remain moist and limp and readily burst open, releasing a brown liquid containing gypsy moth virus. Although this is rather unpleasant, the virus is harmless to everything except gypsy moth caterpillars.

How long does it take for the caterpillars to die from these diseases?

It takes about a week for the caterpillars to die from the fungus, and 2 to 3 weeks for caterpillars to die from the virus.

How do caterpillars get sick?

A caterpillar becomes infected with the fungus after a spore sticks to its skin and begins to grow. A caterpillar must eat the virus to get sick.

Should I remove the dead gypsy moth caterpillars on and around my trees?

It is best to leave the dead caterpillars on your trees because they contain fungus and virus that can make other gypsy moth caterpillars sick this year and in the future. But it will not harm you to remove dead caterpillars if they are hanging on your house or are otherwise unsightly.

Does watering around my trees help the fungus control the gypsy moth?

If rain is scarce during May and June, you can encourage gypsy moth fungal infections by watering around your trees. Watering also helps your trees replace the leaves eaten by caterpillars.

Should I remove leaves and vegetation from around the base of my trees?

Where possible, avoid extensive landscaping but retain leaf litter or encourage vegetation around your trees because large gypsy moth caterpillars often rest in shady places on the ground to cool off. Gypsy moth caterpillars that died from fungus eventually fall down to the base of trees and decompose, adding more spores to the soil around your trees. The exposure of healthy caterpillars to that soil encourages new fungal infections.

If there are lots of dead caterpillars on my trees this year, will I still notice gypsy moths next year?

Maybe, because neither the fungus nor virus kills every gypsy moth caterpillar. The extent of gypsy moth control depends on the number of fungal spores in your soil, patterns of rainfall, and number of gypsy moth caterpillars in your yard. However, this fungus can make gypsy moths so scarce that you may not notice them for several years.

Is the fungus or virus the same as the Bt that is sprayed in the spring to control gypsy moth?

No. Bt, short for *Bacillus thuringiensis*, is an insecticide made from common bacteria found on leaves and in soil. When Bt is sprayed, it is eaten by caterpillars, which become sick and often die. Bt kills only very young gypsy moth caterpillars, so it must be sprayed early in the spring, soon after egg hatch.

Will my trees die if gypsy moth caterpillars eat all their leaves?

Gypsy moth caterpillars prefer eating leaves of deciduous trees—those that lose their leaves in the fall—like oaks and maples. Most deciduous trees can survive loss of their leaves in the spring because they can grow new ones. Watering your trees will help them replace their leaves and stay healthier in case gypsy moths are abundant for several years. This is especially important for newly planted trees or trees growing in sandy or shallow soils.

Although the gypsy moth's favorite food is oak leaves, they eat leaves from almost any type of tree or shrub when hungry. Evergreen trees, such as pine and spruce, are likely to die after most of their needles are eaten. But some trees recover and you can help by watering them well. However, they will look weak for several years before all their needles are replaced.

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