

## Mosquito-borne Diseases

There are no human vaccines or specific treatments for mosquito-borne viruses in Georgia, so prevention of mosquito bites is very important. Most people who are infected will not develop serious illness, but some people have swelling of the brain (encephalitis) and require hospitalization. Severe cases can result in coma or death.

### West Nile virus (WNV)

- WNV is a bird disease that can be spread by mosquitoes to humans and other animals. Horses can become infected with WNV and die.
- Symptoms in humans are usually mild and include fever, headache, and fatigue. It may take several months to recover completely. Some cases result in more serious disease that can include encephalitis, meningitis, paralysis, or death.
- Most cases occur in late summer or early fall.
- People over age 50 are most at risk for developing serious illness if infected.

### Eastern Equine Encephalitis (EEE)

- EEE is a bird disease spread by mosquitoes to humans and other animals. Horses can become infected with EEE and die.
- EEE is a rare disease, but it is more severe than WNV, as about half of EEE cases are fatal.
- People over age 50 and under age 15 are most at risk for developing serious illness if infected.

### La Crosse Encephalitis (LAC)

- LAC is a disease of small mammals spread by mosquitoes to humans.
- It is usually a mild disease with fever, headache, nausea, and/or vomiting. Severe illness or death is rare.
- Children under age 16 are most susceptible to LAC.

## Tick-borne Diseases

If you become ill within 30 days after being bitten by a tick or exposure to tick-infested areas, see your doctor. Tick-borne diseases can be treated with antibiotics, but early treatment is important. Serious illness or death can occur if not treated promptly.

### Rocky Mountain spotted fever

- The most common tick-borne disease in Georgia, caused by the bacterium *Rickettsia rickettsii*.
- Symptoms may include high fever, rash (on palms and soles), headache, muscle pain, and sometimes nausea or vomiting.
- Symptoms appear 3 to 14 days after tick bite.

### Human monocytic ehrlichiosis

- Caused by the bacterium *Ehrlichia chaffeensis*.
- Symptoms include fever, headache, weakness, and sometimes a rash.
- Symptoms appear 7 to 21 days after tick bite.

### Lyme disease

- A rare disease in Georgia caused by the bacterium *Borrelia burgdorferi*.
- Early symptoms may include a bull's-eye shaped rash, fever, weakness, headache, chills, and muscle and joint pain.
- Late symptoms may include arthritis or meningitis.
- Symptoms appear 3 to 30 days after tick bite.

### Southern tick-associated rash illness (STARI)

- A rare disease that may be caused by *Borrelia lonestari* or another bacterium.
- Symptoms are similar to those of early Lyme disease and include a bull's-eye shaped rash.

## Get Ticked Off!

### How To Remove A Tick

Grasp the tick as close to the skin surface as possible with fine-tipped tweezers. Pull the tick straight out slowly. Wash and treat the bite area with a disinfectant. See your doctor if you develop early symptoms of tick-borne disease within the next 30 days. DO NOT squeeze the tick, twist the tick, light the tick on fire, or cover the tick in petroleum jelly, nail polish, alcohol, or kerosene. These "home remedies" may increase the chances of transmitting the bacteria and becoming infected with a tick-borne illness. See our website\* for more information about tick identification.

### Mosquitoes



The southern house mosquito spreads WNV.

### Ticks



The lone star tick is the most common tick found on Georgia residents.



\*<http://www.health.state.ga.us/epi/vbd/index.asp>  
404-657-2588 or [gaepinfo@dhr.state.ga.us](mailto:gaepinfo@dhr.state.ga.us)  
Georgia Division of Public Health [08/2008]

# Mosquitoes and Ticks

and the diseases they spread

**Remember  
this when  
you and your  
family are  
outdoors**



## Getting “Bugged” By Mosquitoes And Ticks?

Using multiple precautions against mosquitoes and ticks helps prevent disease.

- Use insect repellent containing DEET on exposed skin, and products containing permethrin on clothes. Follow label directions. For more information about repellents, including DEET alternatives, see our website\*.
- Do tick checks frequently during the day and a full body tick check at the end of the day. Use a mirror and check behind ears, behind knees, under arms, and groin. Ask someone to help you check your back and scalp. Take a shower and wash your hair before going to bed.
- Wear light-colored clothing, including long pants, a long-sleeved shirt with tight-fitting cuffs, and a hat as weather permits. Tuck pants into socks and shirt into pants.
- Avoid contact with overgrown grass, weeds, and brush by hiking in the center of the trail, and removing excess brush around the house. Avoid sitting on the ground by using a blanket or towel.

### Got Pets?

Ask your veterinarian about products to protect your pets from mosquitoes and ticks, and about the West Nile vaccine for horses. Never allow outdoor pets on furniture or bedding.

# Don't Make Your Home A Home For MOSQUITOES



Mosquitoes only need a very small amount of water on which to lay their eggs, and many places around your home can breed mosquitoes. Once they hatch, they don't fly far from home, which means if you provide breeding grounds you will have adult mosquitoes! Eliminate all standing water from your property to prevent mosquito bites. For standing water that cannot be eliminated, use larvicide to kill mosquitoes in the larval stage before they become adults. Larvicide can be purchased at home improvement and discount stores. For more tips, contact your county environmental health office, mosquito control, or public works.



- Store wheelbarrows, tubs, buckets, barrels, and kiddie pools upside down so that water cannot accumulate in them.
- Do not leave saucers under flowerpots outside, or dump the saucers once a week.
- Dump rain barrels once a week, screen or cover them, or treat with larvicide.
- Change the water in birdbaths and small wading pools at least once a week. Aerate ornamental ponds, stock them with mosquito-eating fish, or treat with larvicide.
- If garbage cans are stored outside, make sure they have tight-fitting lids that do not hold pockets of water.
- Properly maintain swimming pools and ensure that swimming pool covers do not allow rainwater to collect on them.
- Ensure that water does not pool in boats stored outside or on their covers.
- Keep children's toys inside.
- Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.
- Make sure your home and porch have tight-fitting screens that keep mosquitoes out.
- Clean up trash along the roadway.
- Dispose of old tires properly and drill holes in tire swings so water can drain.
- Do not leave pet food out (discard if your pet does not eat it all right away to deter rats and other vermin) and change the water bowl daily.
- Fill in any low places in the yard if water stands there for several days.
- Throw larvicide into retention/detention ponds and other small bodies of water that cannot be drained.



keep yourself *and* your family **safe**

## The Creepy Crawly Facts

### Mosquitoes

- Only female mosquitoes bite.
- Not all kinds of mosquitoes bite humans, many feed only on animals.
- Mosquitoes need water to breed. Almost anything that will hold water for one week can breed mosquitoes.
- The mosquitoes that carry West Nile virus do not fly far from where they breed.

### Ticks

- Ticks are commonly found in shady areas, moist ground litter, tall grass, brush, low tree branches, and along trails in the woods. They are also found in backyards that back up to woody areas.
- Ticks do not fly or jump.
- Not all ticks carry diseases.
- Ticks must be attached for a few hours to transmit disease.