SYMPTOMS OF MOSQUITO-BORNE ILLNESSES

ZIKA VIRUS
Common symptoms of Zika include fever, rash, joint pain, headache, muscle pain, and pink eye. Zika can also be spread from pregnant mothers to their unborn children, and can cause birth defects.

WEST NILE VIRUS
Severe West Nile Virus symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness, and paralysis. Milder symptoms can include fever, headache, body aches, nausea, vomiting, swollen lymph glands, or rash on the chest, stomach, and back.

EASTERN EQUINE ENCEPHALITIS
EEE symptoms include an abrupt onset of chills, fever, generally unhealthy feeling, joint pain, and muscle pain. Signs and symptoms in patients with encephalitis (brain inflammation) are fever, headache, irritability, restlessness, drowsiness, loss of appetite, vomiting, diarrhea, bluish discoloration, convulsions, and coma.

AT-RISK POPULATIONS
- Anyone who works or plays outdoors, such as athletes, hikers, gardeners, and landscapers
- Elderly
- Pregnant women (Zika virus)
- Children
- Anyone with a weakened immune system
- Travelers (Zika virus)
 WHAT YOU CAN DO

CLOTHING
When spending time outside during warm weather, wear long-sleeved shirts/pants whenever possible, especially if outside during dawn or dusk.

DUMP STANDING WATER
Remove any water from unused swimming pools, wading pools, boats, planters, trash and recycling bins, tires, and anything else that collects water, and cover them.

SCREENS
Put screens on windows and doors. Fix screens that have holes.

NETTING
Put insect netting over strollers and playpens.

BUG SPRAY
Use EPA-approved bug spray with one of the following active ingredients: DEET (20-30% strength), picaridin, IR3535, and oil of lemon eucalyptus or para-menthane-diol. Do not use DEET on infants.

CLEAN GUTTERS
Remove anything around your house and yard that collects water. Clean gutters and downspouts to ensure proper drainage.

PROJECTIONS
Climate change is expected to influence mosquitoes and the viruses they carry.

Changes in precipitation and temperature may alter the primary habitat and range of mosquitoes, and impact survival and spread of viruses transmitted from mosquitoes to humans.

West Nile Virus and Eastern Equine Encephalitis may become more common with climate change.
Lyme disease is extremely common in Rhode Island. Rhode Island has the fourth-highest rate of Lyme disease in the country. Washington County has the highest rate of Lyme disease in the state; nearly twice the rate of Newport and Bristol counties.

Ticks are found throughout Rhode Island. Tick-borne diseases are transmitted through the bite of an infected tick. You are most likely to be bitten by a tick in the spring, summer, or fall; however, ticks can survive in the winter if temperatures are above freezing. Warmer winters could increase the number of ticks and the risk for spreading tickborne diseases like Lyme disease, babesiosis, anaplasmosis, ehrlichiosis, Rocky Mountain spotted fever, and Powassan.

Ticks can be infected with bacteria, viruses, or parasites. If you are bitten by an infected tick, you may become infected. Ticks usually are found in tall grass and leafy areas and often attach themselves to you in your armpits, groin, waistline, or in your hair.

TICKS CAN CARRY
Lyme disease, anaplasmosis, ehrlichiosis, babesiosis, powassan and Rocky Mountain spotted fever (rare in Rhode Island).

SYMPTOMS CAN START
as soon as a few days after being bitten or as late as a few months after a tick bite. Some people may have no symptoms at all.

EARLY DIAGNOSIS
is helpful in successfully treating tick-borne diseases. It is important to contact your healthcare provider if you are experiencing any of these symptoms.

FOR MORE INFORMATION:
Everything You Need to Know About Mosquitoes & Ticks is part of the Rhode Island Department of Health’s series, Climate Change and Your Health: A Guide for Rhode Islanders. To read the full booklet, visit www.health.ri.gov/climatechange.

www.health.ri.gov/ticks
www.health.ri.gov/mosquito
RIDOH Health Information Line: 401-222-5960
WHAT YOU CAN DO

AVOID DIRECT CONTACT WITH TICKS

Avoid wooded and brushy areas with high grass and leaf litter and walk in the center of trails.

Wear long pants and long sleeves whenever possible. Wear light colored clothing so you can see the ticks more easily.

Tuck your pants into your socks so ticks don’t crawl under your clothes.

Use products that contain permethrin on shoes and clothing.

When outdoors, use repellents containing 20% DEET, picaridin, IR3535, some oil of lemon eucalyptus or para-menthane-diol. Follow the directions on the package.

CHECK FOR TICKS

Bathe or shower as soon as possible after coming indoors (preferably within 2 hours) to wash off and more easily find ticks that are crawling on you.

Conduct a full-body tick check using a hand-held or full-length mirror to view all parts of your body upon return from tick-infested areas.

Examine gear and pets. Ticks can ride into the home on clothing and pets, then attach to a person later, so carefully examine pets, coats, and day packs.

REMOVE TICKS FROM YOUR BODY

To remove an attached tick, grasp with tweezers as close as possible to the attachment (skin) site, and pull upward and out with a firm and steady pressure. If tweezers are not available, use fingers shielded with tissue paper or rubber gloves.

Where to look:
- Along your hairline
- Ears
- Back of your neck
- Armpits
- Groin
- Behind the knees
- Legs
- Between your toes

Deer Tick actual size:
- Nymph
- Adult Male
- Adult Female