Public Health Notes

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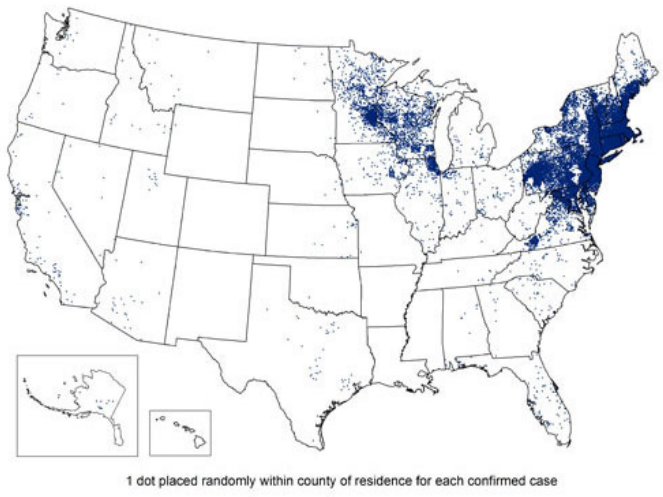
NH DHHS Mission Statement: To join communities and families in providing opportunities for citizens to achieve health and independence.

Tickborne Diseases

The ticks are already out in the Northeast and it promises to be a busy season for the little critters. The mild winter may lead to increased numbers of the disease-carrying arachnids. In New Hampshire the disease of greatest concern to people is Lyme, but ticks can also transmit anaplasmosis, babesiosis, and Powassan virus. These are all transmitted to people by the bite of the black-legged tick, also known as *Ixodes scapularis* and formerly known as the deer tick. Other tickborne diseases, such as ehrlichiosis, tularemia, and Rocky Mountain Spotted Fever, may be encountered in travel to other parts of the United States, including other New England states, but they are not transmitted by the black-legged tick.

The black-legged ticks have four life stages: eggs, larvae, nymphs, and adults. The black-legged nymph tick, which are extremely small, about the size of a poppy seed, are most active in the late spring through the summer months (usually May through August)



CDC map of Lyme disease cases in the United States, 2013

Important Dates

May is Asthma and Allergy Awareness Month
Allergy and Asthma Foundation of America
www.aafa.org

May is Better Sleep Month
The Better Sleep Council
www.bettersleep.org

May is Hepatitis Awareness Month
American liver Foundation
www.liverfoundation.org

May is National High Blood Pressure Education Month
NHLBI Information Center
www.nhlbi.nih.gov

May is National Melanoma/Skin Cancer Awareness Month
American Academy of Dermatology
www.aad.org
American Cancer Society
www.skincancer.org

May is National Mental Health Month
National Mental Health Association
www.nmha.org

May is National Stroke Awareness Month
National Stroke Association
www.stroke.org

May is National Teen Pregnancy Prevention Month
Advocates for Youth
www.advocatesforyouth.org

May 6–12 is National Nurses Week
American Nurses Association
www.nursingworld.org

May 8–14 is Women's Health Week
Office of Women's Health

New Hampshire Department of Health and Human Services
Division of Public Health Services
29 Hazen Drive, Concord, NH 03301
www.dhhs.nh.gov

U.S. Department of Health and Human Services
www.cdc.gov/women/
June is National Safety Month
National Safety Council
www.nsc.org
June 13–19 is National Men's Health Week
National Men's Health Network
www.menshealthweek.org
June 14 is World Blood Donor Day
World Health Organization
www.who.int/world-blood-donor-day
June 27 is National HIV Testing Day
AIDS.gov
www.aids.gov

and are the most likely stage to infect humans with tickborne diseases.

The symptoms of Lyme disease include chills, fever, headache, fatigue, swollen glands, muscle or joint pain, and in 70–80% of people a large circular, or bullseye, rash. Symptoms usually begin within a month of exposure but can range from 3 to 32 days. Lyme disease can be treated with antibiotics.

The symptoms of anaplasmosis can vary from person to person but they include: fever, headache, muscle pain, fatigue, chills, nausea/abdominal pain, cough, confusion, and rash, though this is rare. Anaplasmosis can be a serious illness if not treated correctly and early. Severe cases can include difficulty breathing, hemorrhage, renal failure, and neurological problems. Approximately 1% of cases are fatal. Patients who are treated appropriately with antibiotics generally recover but it may be a long process.

Many people who are infected with the parasite that causes babesiosis (*Babesia microti*) do not develop any symptoms. Some people develop nonspecific flu-like symptoms, such as fever, chills, sweats, headache, body aches, loss of appetite, nausea, or fatigue. But because the *Babesia* parasites infect and destroy red blood cells, babesiosis can cause a special type of anemia called hemolytic anemia. Severe cases of babesiosis can be life threatening, especially in people with a compromised immune system. Complications

A deer tick, Ixodes scapularis*, commonly found in New Hampshire*

of babesiosis include: a low and unstable blood pressure; severe hemolytic anemia (hemolysis); a very low platelet count (thrombocytopenia); disseminated intravascular coagulation (also known as "DIC" or consumptive coagulopathy), which can lead to blood clots and bleeding; malfunction of vital organs (such as the kidneys, lungs, and liver); or death. Treatment for babesiosis depends on the patient's medical history and severity of illness but includes antibiotics and antimalarial medication.

The first case of Powassan virus in New Hampshire was detected in 2013. It is very unusual here but still a possibility, especially with changing climate and therefore changing tick habitat. Powassan is rare and many people who become infected do not develop symptoms, but some people can become extremely ill. Powassan virus can infect the central nervous system and cause inflammation of the brain (encephalitis) and inflammation of the membranes that surround the brain and spinal cord (meningitis). Symptoms can include fever, headache, vomiting, weakness, confusion, loss of coordination, difficulty speaking, and seizures. Approximately half of survivors have permanent neurological symptoms, such as recurrent headaches, muscle wasting, and memory problems, while about 10% of Powassan virus encephalitis cases are fatal.

Residents of New Hampshire should take the following steps to prevent being bitten by ticks:

- Wear light-colored clothing to make ticks easy to see.
- Tuck pants into socks and shirts into pants.

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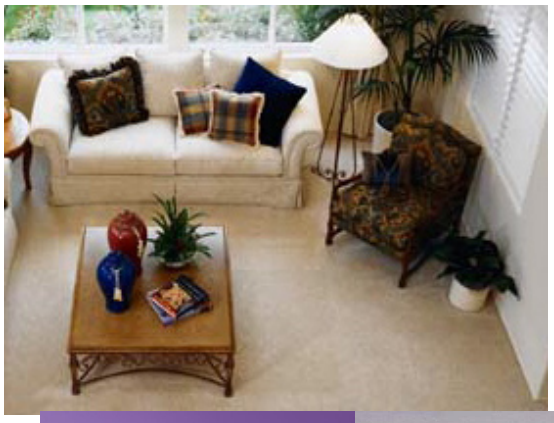
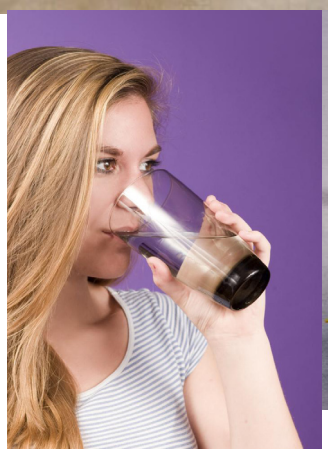
- Use an insect repellent. Products containing at least 20% DEET have been shown to be effective in repelling ticks. Clothes may be treated with Permethrin. Always follow manufacturer's instructions when applying repellents.
- Check after every two or three hours of outdoor activity for ticks on clothes and skin.
- A thorough check of body surfaces for attached ticks should be done at the end of the day.
- Reduce the number of ticks around your home by keeping grass short, removing leaf litter, and creating a barrier of wood chips or gravel where your lawn meets the woods.
- If a tick is attached to your skin for less than 36 hours, your chance of getting Lyme disease is extremely small. But just to be safe, monitor your health closely after a tick bite and be alert for any signs and symptoms of illness.
- A doctor may give you an antibiotic if you were bitten by a black-legged tick to help prevent Lyme disease, so it is important to talk with your healthcare provider if you are concerned about a tick bit or if you have symptoms of a tick-borne disease.

For more information about Lyme or other tick-borne diseases, visit the DHHS website at www.dhhs.nh.gov, the Centers for Disease Control and Prevention website at www.cdc.gov, or call the NH Department of Health and Human Services (DHHS), Bureau of Infectious Disease Control at 603-271-4496.

Perfluorochemicals (PFCs) and Water

More and more tests around the country are coming up positive in drinking water samples for a family of chemicals known as perfluorochemicals (PFCs), also called perfluoroalkyls. In April 2014, the three wells supplying drinking water to the Pease Tradeport were tested by the Air Force for perfluorochemicals (PFCs) for the first time at the request of the U.S. Environmental Protection Agency (EPA) and the NH Department of Environmental Services (DES), because these chemicals are considered emerging contaminants of concern. On May 12, 2014, the U.S. Air Force notified DES that water samples collected from the Haven well showed levels of perfluorooctane sulfonic acid (PFOS) that were above the provisional health advisory (PHA) level set by the EPA. Perfluorooctanoic acid (PFOA) was also elevated but at a level just below the PHA. Additional testing showed that PFOS and PFOA were detectable at the Smith and Harrison wells, the two other water supply wells located at the Tradeport, but at levels well below the PHA.





In March of 2016, the Saint-Gobain Performance Plastics Company notified DES that perfluorooctanoic acid (PFOA) was detected at low levels (0.03 micrograms per liter [µg/L] or 30 parts per trillion) in samples taken from four water faucets within their Merrimack facility, which is served by the Merrimack Village District Water System.

Several other sites around the country, including North Bennington, VT, and Hoosick Falls, NY, have recently discovered PFCs in their water systems as well.

But what are PFCs and what does their discovery in drinking water mean to people's health? PFCs have been used in a variety of industrial applications and consumer products, including manufacturing nonstick cookware and for surface protection for stain-resistant carpets, clothing, furniture, and food packaging, and in products to help them flow freely, such as paint, cleaning products, and certain firefighting foams.

PFCs have been found in soil, air, and water adn do not break down easily in the environment. People are most likely exposed to PFCs by ingesting them by:

- eating food that may contain high levels of PFCs (e.g., fish and shellfish),
- drinking contaminated water,
- eating food contaminated by packaging materials containing PFCs (e.g., popcorn bags, fast food containters, pizza boxes), or
- hand-to-mouth transfer from surfaces treated with PFC-containing stain protectants, such as carpets, which are thought to be most significant in infants and toddlers.

Neither the federal government nor the State of New Hampshire regulates PFCs in drinking water and there are no state or federal enforceable standards, though the EPA is expected to set a level in the near future. A provisional health advisory level reflects drinking water levels that are currently considered safe for both adults and children. Studies show that nearly all people have PFCs in their blood, regardless of age. Some PFCs, including PFOA and PFOS, stay in the human body for many years.

Some animal studies have shown adverse health effects from PFCs in animals, but this does not necessarily predict effects in people. While there are some studies that inconclusively suggest a relationship between PFC exposure and a health effect, there are also many studies looking at the same health outcome that do not show a relationship with PFC exposure. Given the inconsistent and sometimes contradictory findings in the medical literature, no one atthis time can be sure about the health effects of PFCs on humans. More studies are needed to say whether PFCs cause health changes in humans.

May Is American Stroke Month and Blood Pressure Awareness Month—What You Should Know about Both!

Stroke is the 5th leading cause of death in both New Hampshire and the United States and a leading cause of long-term disability. According to the American Stroke Association, every 40 seconds someone in the U.S. suffers a stroke. A stroke is when a blockage causes blood flow to the brain to stop or when a blood vessel in or around the brain bursts. A stroke can cause life-changing complications such a paralysis, difficulty speaking or understanding speech, depression, and death. Strokes can happen to people of any age but are more common in older adults. There are several risk factors for stroke, one of the most important being uncontrolled high blood pressure. Keeping your blood pressure under control reduces your risk of heart attack and stroke. American Stroke Month and Blood Pressure Awareness Month are a time to increase awareness about prevention, signs, symptoms, treatment, and what you can do to help stay healthy.

According to the American Heart Association, approximately 80 million adults (33%) in the U.S. have high blood pressure. About 77% of these adults

are using medication to help control their blood pressure but only about 54% have their condition under control. In 2013, 30% of New Hampshire adults who responded to the NH Behavioral Risk Factor Surveillance System (NHBRFSS) indicated that they had been told by a healthcare professional that they have high blood pressure (www.wisdom.dhhs.nh.gov). The good news is that there are things everyone can do to help prevent and control high blood pressure:

- Eating a healthy diet–include fresh fruits and vegetables
- Maintaining a normal weight–talk with your healthcare provider about the appropriate weight for you
- Get regular exercise–at least 30 minutes of physical activity 5 days or more each week
- Quit smoking–www.QUITNOWNH.org
- Limiting alcohol use–no more than 2 drinks per day for men and no more than 1 drink per day for women

Not all strokes are severe. Sometimes people have what are called "mini strokes" which occur quickly and last a short time. It is very important, however, for anyone experiencing any stroke signs and symptoms to get help immediately and call 911 and not decide on their own what type of stroke they might be having. If you think you or someone you know is having a stroke, time is critical and having access to early treatment can help save a life and improve your chances of having a good outcome.

Symptoms of a stroke include:

- Sudden numbness or weakness in the face, arm or leg—especially on one side of the body
- Sudden confusion, trouble speaking, or trouble understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance, or coordination
- Sudden severe headache with no known cause

If you or anyone you know experiences any of these signs or symptoms, call 911 and seek immediate medical attention. **Know the warning signs of a stroke by learning F.A.S.T. – it is easy to remember and can help save a life:**

F - Face Drooping
A - Arm Weakness
S - Speech Difficulty
T - Time to Call 911

Many people do not know the risk factors for stroke and that by leading a healthier life you can reduce your chances of having a stroke. Risk factors for stroke include:

- High blood pressure
- Having had a previous stroke
- High blood cholesterol
- Coronary artery disease
- Diabetes
- Being overweight
- Family history of stroke
- Physical inactivity
- Being of certain races or ethnicity (for more information check with your health care provider)
- Increasing age
- Smoking

Talk to your health provider regarding how to manage your risk and/or health conditions and make today the start of a healthier life.

To learn more about preventing stroke visit www.cdc.gov/stroke. To read more about the NH DHHS, Division of Public Health Services, Heart Disease and Stroke Prevention Program go to www.dhhs.nh.gov/dphs/cdpc/hdsp.htm.