

Chickenpox (Varicella) Fact Sheet

Chickenpox is a highly contagious disease caused by a virus called varicella-zoster.

Chickenpox occurs most frequently in the winter and early spring. Approximately 90% of chickenpox cases occur in children 1 to 14 years of age, and 90% of people have had chickenpox by their early 20's. The disease is usually mild, and not life threatening in otherwise healthy children, but can be more serious in newborn babies and adults. A person usually has only one episode of chickenpox, but the virus can lie dormant within the body and resurface later in life causing shingles (herpes zoster). More severe but rare complications of chickenpox include pneumonia (lung infection), skin infection, blood infection, or brain involvement.

Chickenpox is spread from person-to-person by airborne droplets and direct contact with infected secretions.

It is highly contagious and is spread by touching the blisters, saliva, or mucus of an infected person, or from virus spread through the air. Chickenpox may also be spread by contact with articles freshly soiled by discharge from an infected person's lesions. People with chickenpox can spread the disease from 1 to 2 days before the rash develops until all the lesions are crusted over (approximately 5 days). Anyone with chickenpox should not attend childcare, school, work, or other public places until the blisters are dry and crusted.

Symptoms to look for include:

- Sudden onset of fever
- Itchy blister-like rash

Symptoms can occur within 10 to 21 days (usually 14 to 16 days) after exposure to someone with chickenpox. Itchy blisters are usually most concentrated on the face, scalp, and upper trunk.

Laboratory testing is available to confirm chickenpox.

People who think they may have chickenpox should see a doctor or their local health department. Chickenpox is often diagnosed by its symptoms; however blood tests or scrapings and fluid from the rash vesicles can help in confirming the diagnosis.

See a doctor for treatment.

Several options are available to help manage and treat chickenpox. If given within 24 hours after the rash develops, some treatments may lessen the severity of the disease. Treatment of chickenpox depends on many specific factors, so you should consult with your doctor or local health department for advice. Always call your doctor's office or local health department before visiting so that other patients can be protected if necessary.

A person in close contact with someone who has chickenpox may also need treatment. People 12 months of age or older that have been exposed and are considered susceptible to catching chickenpox should receive chickenpox vaccine within 3 to 5 days of exposure. Other prevention options are available for certain situations. Consult with your doctor or local health department for advice. High risk contacts may include:

- Pregnant women because of the danger to the unborn baby;
- A newborn baby whose mother develops chickenpox 5 days before to 2 days after delivery; or
- People with weakened immune systems, such as people with cancer, organ transplant patients, and HIV.

Chickenpox can be prevented with chickenpox vaccine.

2 doses of chickenpox vaccine are recommended for all healthy children 12 months to 18 years of age. Vaccine is also recommended for persons 19 years and older who have not had chickenpox and are at high risk for exposure such as those living in a household with children, teachers, institutional residential staff, healthcare workers, college students, or international travelers. Age-appropriate vaccination against chickenpox is required for enrollment in Maryland childcare institutions and schools. For additional information about chickenpox vaccine, please visit: <http://www.cdc.gov/vaccines/vpd-vaq/varicella/default.htm>

Cold Symptoms (cont.)

cough that produces mucus, may indicate a complication or more serious illness requiring a doctor's attention.

How Cold Viruses Cause Disease

Viruses cause infection by overcoming the body's complex defense system. The body's first line of defense is mucus, produced by the membranes in the nose and throat. Mucus traps the material we inhale: pollen, dust, bacteria, and viruses. When a virus penetrates the mucus and enters a cell, it commandeers the protein-making machinery to manufacture new viruses, which, in turn, attack surrounding cells.

How Colds are Spread

Depending on the virus type, any or all of the following routes of transmission may be common:

- Touching infectious respiratory secretions on skin and on environmental surfaces and then touching the eyes or nose.
- Inhaling relatively large particles of respiratory secretions transported briefly in the air.
- Inhaling droplet nuclei: smaller infectious particles suspended in the air for long periods of time.

Individuals are more likely to transmit rhinoviruses in the second to fourth day of infection, when the amount of virus in nasal secretions is highest. Researchers also have shown that using aspirin to treat colds increases the amount of virus shed in nasal secretions, possibly making the cold sufferer more of a hazard to others.

Prevention

Hand washing is the simplest and most effective way to keep from getting rhinovirus colds. Not touching the nose or eyes is another. Individuals with colds should always sneeze or cough into a facial tissue, and promptly throw it away. If possible, one should avoid close, prolonged exposure to persons who have colds.

Because rhinoviruses can survive up to three hours outside the nasal passages on inanimate objects and skin, cleaning environmental surfaces with a virus-killing disinfectant might help prevent spread of infection.

Treatment

Only symptomatic treatment is available for uncomplicated cases of the common cold: bed rest, plenty of fluids, gargling with warm salt water, petroleum jelly for a raw nose, and aspirin or acetaminophen to relieve headache or fever.

Nonprescription cold remedies, including decongestants and cough suppressants, may relieve some cold symptoms but will not prevent, cure, or even shorten the duration of illness. Moreover, most have some side effects, such as drowsiness, dizziness, insomnia, or upset stomach, and should be taken with care.

Nonprescription antihistamines may have some effect in relieving inflammatory responses such as runny nose and watery eyes that are commonly associated with colds.

Antibiotics do not kill viruses. These prescription drugs should be used only for rare bacterial complications, such as sinusitis or ear infections, that can develop as secondary infections. The use of antibiotics "just in case" will not prevent secondary bacterial infections.

The Outlook

Thanks to basic research, scientists know more about the rhinovirus than almost any other virus, and have powerful new tools for developing antiviral drugs. Although the common cold may never be uncommon, further investigations offer the hope of reducing the huge burden of this universal problem.

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Influenza (Flu)

Flu is a serious contagious disease that can lead to hospitalization and sometimes death.

How does flu spread?

Most experts think that flu viruses are spread mainly by droplets made when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. A person might also get flu by touching a surface or object that has flu virus on it and then touching their own eyes, mouth or nose.

How long can a sick person spread flu to others?

People infected with flu shed virus and may be able to infect others from 1 day before getting sick to about 5-7 days after getting sick. This can be longer in some people, especially children and people with weakened immune systems. This means that you may be able to pass on the flu to someone else before you know you are sick, as well as while you are sick.

How severe is illness associated with flu?

Each flu season, different flu viruses spread and affect people differently based on their body's ability to fight infection. Even healthy children and adults can get very sick from the flu and spread it to friends, co-workers, and family. In the United States, millions of people have to visit the doctor because of flu and hundreds of thousands are hospitalized from flu complications each year.

While flu can make anyone sick, certain people are at greater risk for severe illness resulting in hospitalization or death. This includes older adults, young children, people with certain long term health conditions such as asthma, diabetes, and heart disease and women who are pregnant. (See "What should I do if I get sick?" for the full list of high risk factors.)

What can I do to protect myself from getting sick from flu?

CDC recommends a three-step approach to fighting flu: vaccination, everyday preventive actions, and the correct use of antiviral drugs if your doctor recommends them.

Prevention

A flu vaccine is the first and most important step in protecting against flu viruses.

While there are many different flu viruses, the flu vaccine protects against the viruses that research indicates will be most common.

Flu vaccines protect against three or four viruses: an H1N1, an H3N2, and one or two influenza B viruses, depending on the vaccine.

Everyone 6 months of age and older should get vaccinated against the flu each year.

Vaccination of high risk persons is especially important to decrease their risk of severe flu illness. Vaccination also is important for health care workers, and those who live with or care for high risk people to keep from spreading flu to high risk people.

Children younger than 6 months are at high risk of serious flu illness, but are too young to be vaccinated. People who care for or live with them should be vaccinated to protect these babies.

#2 Take everyday actions to help prevent the spread of germs that cause respiratory illnesses.

Try to avoid close contact with sick people.

If you are sick with flu-like illness, CDC recommends that you stay home for at least 24 hours after your fever is gone except to get medical care or for other necessities. Your fever should be gone without the use of a fever-reducing medicine.

While sick, limit contact with others as much as possible to keep from infecting them.

Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.

Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.

Avoid touching your eyes, nose and mouth. Germs spread this way.

Clean and disinfect surfaces and objects that may be contaminated with germs like the flu.

#3

Take flu antiviral drugs if your doctor prescribes them.

If you get the flu, antiviral drugs can treat your illness. These drugs can make illness milder and shorten the time you are sick.

Antiviral drugs work best when started in the first 2 days of symptoms to treat people who are very sick (such as those who are hospitalized) or people who are sick with flu symptoms and who are at increased risk of severe flu illness.

If You Get Sick

What should I do if I get sick?

If you become ill with influenza symptoms you should stay home and avoid contact with other people except to seek medical care. Most people are able to recover at home from flu without medical care.

However, some people are at greater risk of serious flu-related complications. They are:

Children younger than 5, but especially children younger than 2 years old

People 65 and older

Pregnant women (and women up to two weeks postpartum)

People who have:

• Asthma

• Neurological and neurodevelopmental conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury).

• Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)

• Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)

• Blood disorders (such as sickle cell disease)

MRSA FACT SHEET



What is MRSA?

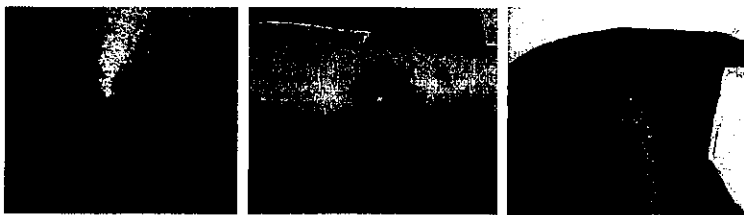
MRSA is methicillin-resistant *Staphylococcus aureus*, a potentially dangerous type of staph bacteria that is resistant to certain antibiotics and may cause skin and other infections. As with all regular staph infections, recognizing the signs and receiving treatment for MRSA skin infections in the early stages reduces the chances of the infection becoming severe. MRSA is spread by:

- > Having direct contact with another person's infection
- > Sharing personal items, such as towels or razors, that have touched infected skin
- > Touching surfaces or items, such as used bandages, contaminated with MRSA

What are the signs and symptoms?

Most staph skin infections, including MRSA, appear as a bump or infected area on the skin that may be:

- > Red
- > Swollen
- > Painful
- > Warm to the touch
- > Full of pus or other drainage
- > Accompanied by a fever



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<http://phil.cdc.gov>

What if I suspect an MRSA skin infection?

Cover the area with a bandage and contact your healthcare professional. It is especially important to contact your healthcare professional if signs and symptoms of an MRSA skin infection are accompanied by a fever.

How are MRSA skin infections treated?

Treatment for MRSA skin infections may include having a healthcare professional drain the infection and, in some cases, prescribe an antibiotic. Do not attempt to drain the infection yourself – doing so could worsen or spread it to others. If you are given an antibiotic, be sure to take all of the doses (even if the infection is getting better), unless your healthcare professional tells you to stop taking it.

How can I protect my family from MRSA skin infections?

- > Know the signs of MRSA skin infections and get treated early
- > Keep cuts and scrapes clean and covered
- > Encourage good hygiene such as cleaning hands regularly
- > Discourage sharing of personal items such as towels and razors

**For more information, please call
1-800-CDC-INFO or visit www.cdc.gov/MRSA.**

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In women, untreated infection can spread into the uterus or fallopian tubes and cause pelvic inflammatory disease (PID). This happens in up to 40 percent of women with untreated chlamydia. PID can cause permanent damage to the fallopian tubes, uterus, and surrounding tissues. The damage can lead to chronic pelvic pain, infertility, and potentially fatal ectopic pregnancy (pregnancy outside the uterus). Women infected with chlamydia are up to five times more likely to become infected with HIV, if exposed.

To help prevent the serious consequences of chlamydia, screening at least annually for chlamydia is recommended for all sexually active women age 25 years and younger. An annual screening test also is recommended for older women with risk factors for chlamydia (a new sex partner or multiple sex partners). All pregnant women should have a screening test for chlamydia.

Complications among men are rare. Infection sometimes spreads to the epididymis (the tube that carries sperm from the testis), causing pain, fever, and, rarely, sterility.

Rarely, genital chlamydial infection can cause arthritis that can be accompanied by skin lesions and inflammation of the eye and urethra (Reiter's syndrome).

■ How does chlamydia affect a pregnant woman and her baby?

In pregnant women, there is some evidence that untreated chlamydial infections can lead to premature delivery. Babies who are born to infected mothers can get chlamydial infections in their eyes and respiratory tracts. Chlamydia is a leading cause of early infant pneumonia and conjunctivitis (pink eye) in newborns.

■ How is chlamydia diagnosed?

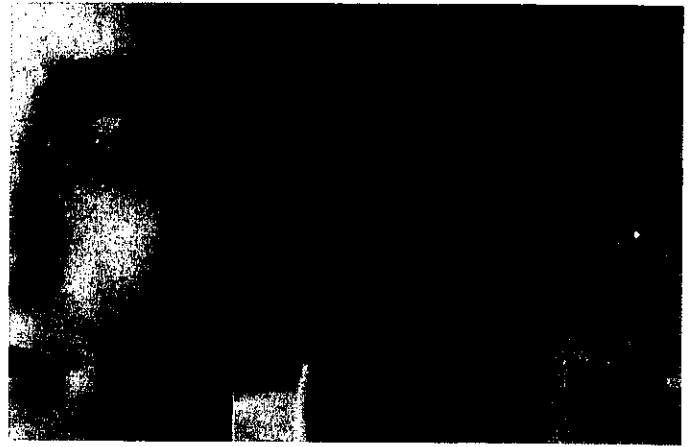
There are laboratory tests to diagnose chlamydia. Some can be performed on urine, other tests require that a specimen be collected from a site such as the penis or cervix.

■ What is the treatment for chlamydia?

Chlamydia can be easily treated and cured with antibiotics. A single dose of azithromycin or a week of doxycycline (twice daily) are the most commonly used treatments. HIV-positive persons with chlamydia should receive the same treatment as those who are HIV negative.

All sex partners should be evaluated, tested, and treated. Persons with chlamydia should abstain from sexual intercourse until they and their sex partners have completed treatment, otherwise re-infection is possible.

Women whose sex partners have not been appropriately treated are at high risk for re-infection. Having multiple infections increases a woman's risk of serious reproductive health complications, including infertility. Retesting should be encouraged for women three to four months after treatment. This is especially true if a woman does not know if her sex partner received treatment.



■ How can chlamydia be prevented?

The surest way to avoid transmission of STDs is to abstain from sexual contact, or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

Latex male condoms, when used consistently and correctly, can reduce the risk of transmission of chlamydia.

CDC recommends yearly chlamydia testing of all sexually active women age 25 or younger, older women with risk factors for chlamydial infections (those who have a new sex partner or multiple sex partners), and all pregnant women. An appropriate sexual risk assessment by a health care provider should always be conducted and may indicate more frequent screening for some women.

Any genital symptoms such as an unusual sore, discharge with odor, burning during urination, or bleeding between menstrual cycles could mean an STD infection. If a woman has any of these symptoms, she should stop having sex and consult a health care provider immediately. Treating STDs early can prevent PID. Women who are told they have an STD and are treated for it should notify all of their recent sex partners (sex partners within the preceding 60 days) so they can see a health care provider and be evaluated for STDs. Sexual activity should not resume until all sex partners have been examined and, if necessary, treated.

■ FOR MORE INFORMATION:

Division of STD Prevention (DSTDP)

Centers for Disease Control and Prevention

<http://www.cdc.gov/std/>

CDC-INFO Contact Center

1-800-CDC-INFO (1-800-232-4636)

Email: cdcinfo@cdc.gov

American Social Health Association (ASHA)

1-800-783-9877

www.ashastd.org

How does gonorrhea affect a pregnant woman and her baby?

If a pregnant woman has gonorrhea, she may give the infection to her baby as the baby passes through the birth canal during delivery. This can cause serious health problems for the baby. Treating gonorrhea as soon as it is detected in pregnant women will make these health outcomes less likely. Pregnant women should consult a health care provider for appropriate examination, testing, and treatment, as necessary.

Who should be tested for gonorrhea?

Any sexually active person can be infected with gonorrhea. Anyone with genital symptoms such as discharge, burning during urination, unusual sores, or rash should stop having sex and see a health care provider immediately.

Also, anyone with an oral, anal, or vaginal sex partner who has been recently diagnosed with an STD should see a health care provider for evaluation.

Some people should be tested for gonorrhea even if they do not have symptoms or know of a sex partner who has gonorrhea. Anyone who is sexually active should discuss his or her risk factors with a health care provider and ask whether he or she should be tested for gonorrhea or other STDs.

People who have gonorrhea should also be tested for other STDs.

How is gonorrhea diagnosed?

Most of the time, a urine test can be used to test for gonorrhea. However, if a person has had oral and/or anal sex, swabs may be used to collect samples from the throat and/or rectum. In some cases, a swab may be used to collect a sample from a man's urethra (urine canal) or a woman's cervix (opening to the womb).

Find an STD testing facility near you

What is the treatment for gonorrhea?

Gonorrhea can be cured with the right treatment. It is important to take all of the medication prescribed to cure gonorrhea. Medication for gonorrhea should not be shared with anyone. Although medication will stop the infection, it will not repair any permanent damage done by the disease. Drug-resistant strains of gonorrhea are increasing, and successful treatment of gonorrhea is becoming more difficult. If a person's symptoms continue for more than a few days after receiving treatment, he or she should return to a health care provider to be reevaluated.

What about partners?

If a person has been diagnosed and treated for gonorrhea, he or she should tell all recent anal, vaginal, or oral sex partners so they can see a health care provider and be treated. This will reduce the risk that the sex partners will develop serious complications from gonorrhea and will also reduce the person's risk of becoming re-infected. A person with gonorrhea and all of his or her sex partners must avoid having sex until they have completed their treatment for gonorrhea and until they no longer have symptoms. For tips on talking to partners about sex and STD testing, visit www.gytnow.org/talking-to-your-partner/.

How can gonorrhea be prevented?

Latex condoms, when used consistently and correctly, can reduce the risk of getting or giving gonorrhea. The most certain way to avoid gonorrhea is to not have sex or to be in a long-term, mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

"The highest reported rates of infection are among sexually active teenagers, young adults, and African Americans."



Where can I get more information?

Division of STD Prevention (DSTDP)
Centers for Disease Control and Prevention
www.cdc.gov/std

CDC-INFO Contact Center
1-800-CDC-INFO (1-800-232-4636)
Email: cdcinfo@cdc.gov

quickly away from light. If crawling lice are not seen, finding nits confirms that a person is probably infested and should be treated. If you are unsure about infestation or if treatment is not successful, see a health care provider for a diagnosis.

How is a pubic lice infestation treated?

A lice-killing lotion, shampoo, or mousee made of 1% permethrin or pyrethrin is recommended to treat pubic lice. These products are the same as those used to treat head lice and are available without a prescription at your local drug store. Medication is generally very effective; apply the medication exactly as directed on the bottle.

Malathion* lotion 0.5% (Ovide*) is another pediculicide that is available by prescription and is effective against pubic lice.

How to treat pubic lice infestations: (Note: see section below for treatment of eyelashes or eyebrows. The lice medications described in this section should not be used near the eyes.)

1. Wash the infested area; towel dry.
2. Carefully follow the instructions on or in the package. Thoroughly saturate hair with lice medication. If using permethrin or pyrethrins, leave medication on for 10 minutes. Thoroughly rinse off medication with water.
3. Following treatment, most nits will still be attached to hair shafts. Nits may be removed with a fine-tooth comb or fingernails.
4. Put on clean underwear and clothing after treatment.
5. To kill any lice or nits (attached to hairs) that may be left on clothing or bedding, machine-wash those washable items that the infested person used during the 2-3 days before treatment. Use the hot water cycle (130° F). Use the hot dryer cycle for at least 20 minutes.
6. Dry-clean clothing that is not washable.
7. Inform any sexual partners that they are at risk for infestation.
8. Do not have sex until treatment is complete.
9. Do not have sex with infected partners until partners have been treated and infestation has been cured.
10. Repeat treatment in 9-10 days if lice are still found.

To treat nits and lice found on eyebrows or eyelashes:

If only a few nits are found, it may be possible to remove live lice and nits with your fingernails or a nit comb.

If additional treatment is needed for pubic lice nits found on the eyelashes, applying an ophthalmic-grade petrolatum ointment (only available by prescription) to the eyelids 2-4 times a day for 10 days is effective. Vaseline* is a kind of petrolatum, but it should not be used because it is likely to irritate the eyes if applied.

** Use of trade names is for identification only and does not imply endorsement by the Public Health Service or by the U.S. Department of Health and Human Services.*

This fact sheet is for information only and is not meant to be used for self-diagnosis or as a substitute for consultation with a health care provider. If you have any questions about the name of disease described above or think that you may have a parasitic infection, consult a health care provider.

Revised February 4, 2008



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
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and techniques is essential to preventing mosquito bites. Workers should:

- Cover as much of the skin as possible by wearing shirts with long sleeves, long pants and socks whenever possible. Use light weight clothing to minimize the potential for heat-induced illnesses.
- Use insect repellent containing an EPA-registered active ingredient (e.g., DEET, Picaridin) on exposed skin according to instructions on packaging. All of the EPA-registered active ingredients have demonstrated repellency however some provide more long-lasting protection than others.
- Avoid the use of perfumes and colognes when working outdoors; mosquitoes may be more attracted to individuals wearing perfumes or colognes.
- Choose a repellent that provides protection for the amount of time that you will be outdoors/in areas of concern. The more DEET a repellent contains, the longer time it can protect one from mosquito bites, with protection times ranging from 1 hour (4.75% DEET) to 5 hours (23.8% DEET).
- Spray insect repellent on the outside of one's clothing, as it is possible for mosquitoes to bite through thin clothing.

- Do NOT spray insect repellent on skin that is under clothing.
- Never apply insect repellents over open wounds or irritated skin.
- Do NOT spray aerosol or pump products in enclosed areas. Do NOT spray a pump or aerosol product directly on one's face. First spray on hands and carefully rub on face (do not allow insect repellent to contact one's eyes and mouth).
- After working in areas where mosquitoes are a concern, use soap and water to wash skin that has been treated with insect repellent.
- Be extra vigilant at dusk and dawn when mosquitoes are most active.

Additional Resources:

CDC West Nile Virus Home Page at
<http://www.cdc.gov/ncidod/dvbid/westnile/>

CDC information on the use of insect repellents at
http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm

OSHA at <http://www.osha.gov/dts/shib/shib082903b.html>

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For more complete information:



U.S. Department of Labor

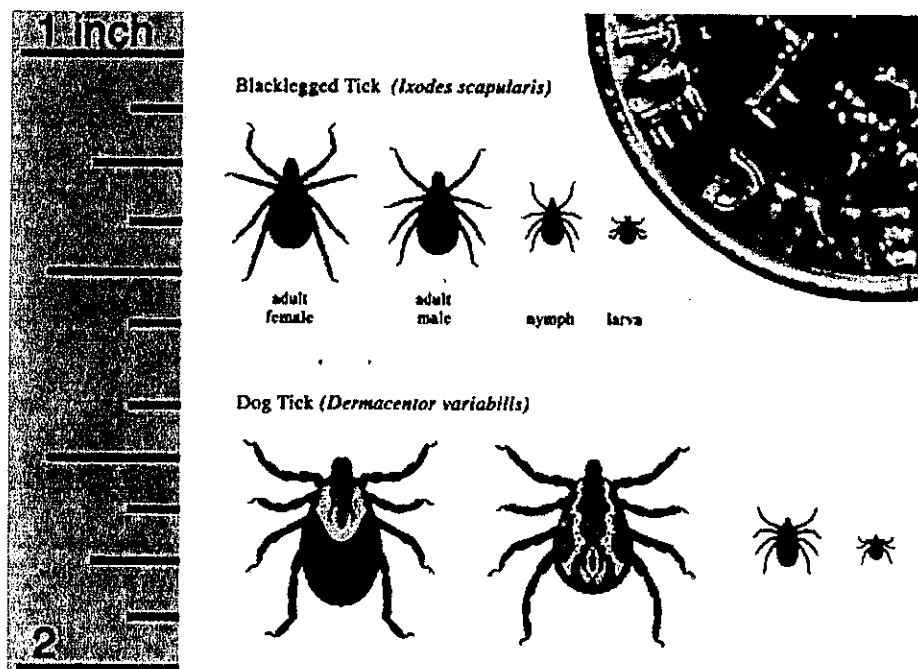
www.osha.gov (800) 321-OSHA (6742)



Tick Borne Diseases

What are ticks?

Ticks are relatives of spiders that feed on the blood of mammals, birds, and reptiles. Deer ticks and dog ticks are found throughout Massachusetts and may spread different disease-causing germs through bites. Ticks exist in three stages: larva, nymph and adult. Ticks come in different sizes, so checking carefully for ticks on your body is important. Young deer ticks (nymphs) are the size of a poppy seed. Adult dog ticks are about the size of a watermelon seed. Both of these bite humans and can make them sick.



Relative sizes of several ticks at different life stages. http://www.cdc.gov/ticks/life_cycle_and_hosts.html

Where are ticks found?

Ticks are generally found in brushy, wooded, or grassy areas. Ticks do not fly, jump, or drop from trees or high bushes. They attach to animals or people that come into direct contact with them and climb upwards.

What diseases can ticks spread?

Ticks in Massachusetts can spread Lyme disease, babesiosis, anaplasmosis, tularemia, and Rocky Mountain spotted fever. All but Lyme disease are rare in Boston. In Massachusetts, Lyme disease as well as the other infections occur most frequently on Cape Cod, Martha's Vineyard, and Nantucket.

Babesiosis is caused by a parasite that affects red blood cells. Most people who are infected will show no signs of illness. Symptoms, when they do occur, begin gradually about 1 to 6 weeks after being bitten by an infected deer tick and can include fever, chills, headache, joint and muscle aches, fatigue, nausea, vomiting, abdominal pain, and dark urine. The elderly and people without a healthy spleen or immune system are more likely to develop serious symptoms.

CONTINUED

Lyme disease is an illness caused by bacteria (germs) that are spread to people and animals by tiny infected deer ticks. In Massachusetts, deer ticks are found everywhere. Initial symptoms usually begin 3 to 30 days after a person is bitten by an infected deer tick and may include an expanding rash at the site of the bite and/or flu-like symptoms.

Anaplasmosis (human granulocytic ehrlichiosis) is caused by bacteria that affect certain white blood cells. Symptoms typically appear suddenly 7 to 14 days after being bitten by an infected deer tick and can include fever, headache, muscle aches, chills, sweating, nausea, and vomiting. Because symptoms may become life-threatening, immediate treatment is necessary. The elderly and people without a healthy immune system are more likely to develop serious symptoms.

Tularemia is caused by bacteria that can be spread to people in a number of ways, including through the bite of a infected ticks. Symptoms vary depending on the way the germs are transmitted and usually begin between 3 to 5 days after an exposure, although it can take as long as 14 days. People infected by a tick bite typically have a slow-healing skin sore (ulcer) and swollen glands (lymph nodes).

Rocky Mountain spotted fever (RMSF) is a rare disease caused by bacteria that usually presents as a high fever with severe headache and fatigue 2 to 14 days after being bitten by an infected dog tick. A rash that spreads to the palms of the hands and soles of the feet often appears 2 to 5 days after the fever begins.

What should I do if I find a tick on myself?

Carefully remove the tick as soon as possible. Use fine point tweezers to grip the tick as close to the skin as possible. Pull the tick straight outward with steady, gentle pressure. Do not squeeze or twist the tick. Do not apply kerosene, petroleum jelly, nail polish, or a hot match tip to remove the tick. You may want to save the tick for identification. Notify your health care provider if you have been bitten by a deer tick or if you develop a rash or other signs of illness following a tick bite.

How can I prevent tick borne disease?

The best way to prevent tick borne disease is to check yourself and your children after being in an area where ticks are likely to be found. Ticks often are found on the legs, in the groin, in the armpits, along the hairline, and in or behind the ears. Deer ticks are very small, so look for new "freckles".

Other precautions include:

- Wear long sleeved shirts and long pants and tuck your pant legs into your socks.
- Light colored clothes will help you spot the ticks on your clothes before they reach your skin.
- Stay to the middle of paths when in a heavily wooded area.
- Use insect repellants containing DEET on exposed skin. Read labels carefully. Use products with no more than 30% DEET. Do not use insect repellents on infants. Wash skin with soap and water after returning indoors.
- Permethrin may be applied to items such as clothing to repel ticks. Read the product package carefully and follow the directions for use. Do not apply directly on your skin.
- There are other insect repellents approved by the EPA for ticks. For more information, visit: <http://www2.epa.gov/insect-repellents/find-insect-repellent-right-you>
- Talk to your veterinarian about the best ways to protect your pets from ticks.
- Know the symptoms of diseases spread by ticks and see a health care provider if you get any symptoms.
- Not all ticks carry disease, and being bitten by a tick does not mean that you will always get a disease. The longer a tick is attached, the more likely an infection can be transmitted.



Boston Public Health Commission | Infectious Disease Bureau

1010 Massachusetts Avenue | Boston, MA 02118 | www.bphc.org | 617-534-5611