



## NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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June 23, 2025

**To:** Local Environmental Health Staff, Local Health Directors and Summer Camp Directors  
**From:** Larry D. Michael, REHS, MPH, State Environmental Health Director,  
Zack Moore, MD, MPH, State Epidemiologist  
**Subject:** Health and Safety Guidance for Summer Camps: Rabies, Norovirus, and Measles Prevention

Summer camps provide wonderful educational experiences for children. This memo provides guidance on the prevention of three diseases of concern in summer camp settings – rabies, norovirus, and measles – to help campers and staff enjoy these experiences safely. Also included is an excellent manual on communicable disease prevention for summer camps prepared by Buncombe County Health & Human Services, which they have agreed to share with the rest of the state.

### **Rabies**

Rabies, though rare in humans, is almost always fatal and can be carried by wild and domestic mammals in NC. Rabies is transmitted through bites, scratches, or saliva contacting mucous membranes or open wounds. Bat exposures pose a unique risk because they may go unnoticed—especially if a person shares a room with a bat and is unaware of any contact. A bat found in a cabin can lead to a “mass bat exposure,” requiring assessment and potential rabies post-exposure prophylaxis for all affected. Fortunately, these circumstances can be prevented if local health departments and camp directors follow safety measures. Please refer to the resources below for best practices for preventing rabies and appropriate steps in the event of a rabies exposure:

- A complete list of guidance and safety measures regarding rabies prevention can be found in the [North Carolina Rabies Control Manual](#).
- The attached Buncombe County Camp Safety Guide provides helpful tips on preventing rabies and bat bites in summer camp settings (pages 8-9).
- Consider hiring a [Wildlife Damage Control Agent](#) to bat- and wildlife-proof camp facilities.
- Consult the NC DPH communicable disease on-call line (919-733-3419) for assistance with rabies questions and risk assessments.

### **Norovirus**

Maintaining a healthy camp environment requires vigilant attention to hygiene and food safety practices, particularly when it comes to preventing norovirus and other foodborne illnesses. Norovirus is highly contagious and can spread quickly through contaminated surfaces, food, and person-to-person contact. To help protect campers and staff, we ask that you follow the guidelines outlined in Buncombe County’s Camp Safety Guide and [CDC’s website](#) and incorporate them into daily operations.

General reminders include: making soap and water available for handwashing before eating or putting on gloves and after restroom visits or caring for a sick person (rather than relying on alcohol-based hand rubs, which are less effective against norovirus); excluding sick campers and staff from group activities and preparing food for 48 hours after symptoms have stopped; cleaning and disinfecting high-touch surfaces contaminated by vomit and/or diarrhea with the appropriate cleaners and disinfectants (i.e., properly diluted bleach solution [1:10 bleach to water]) multiple times a day; and having [a response plan](#) in place for vomit incidents in bathrooms or public areas.

### **NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH**

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**Measles**

Finally, in recent months there have been increases in measles across the United States. The number of measles cases reported in the U.S. in 2025 is on track to be higher than we've seen in more than three decades, and cases are also surging in Canada, Mexico, and several other countries. Please take precautions and make sure your camp is prepared for a potential measles case by reviewing the CDC camp checklist:

<https://www.cdc.gov/measles/downloads/measles-camp-checklist.pdf>

By adhering to these best practices, we can significantly reduce the risk of animal exposure, illnesses or outbreaks, ensuring a safer environment for everyone in the camp community.

If you have any questions on these topics, please contact the NC DPH communicable disease on-call at 919-733-3419.

# **BUNCOMBE COUNTY**

## **HEALTH & HUMAN SERVICES**

### **CAMP SAFETY GUIDE**

**HAVE FUN, STAY SAFE AND BE HEALTHY!**



A guide to summer camp safety in  
Western North Carolina

# THE SAFETY OF CHILDREN IS EVERYONE'S JOB!

## Dear Parents and Camp Administrators:

Summer camps are a great opportunity for children and teens to spend time outdoors and participate in a variety of educational and recreational opportunities.

To help make summer camp a safe and enjoyable experience, there are precautions that can be taken by parents, camp staff and campers themselves. Summer camps in our region have written health policies and protocols. We encourage parents to ask questions and be informed of what those policies are before their child's arrival at summer camp.

This booklet, produced by Buncombe County Health and Human Services Communicable Disease Control, provides information relevant to North Carolina, and in particular, Western North Carolina. Based on their experience and knowledge of the potential hazards that camp settings can present, the team has worked hard to make contact with camp staff, answer questions and provide friendly reminders about safety precautions. This guide reinforces critical public health information for staff and parents that, when applied, can provide a shield of protection that keep campers healthy and safe from preventable communicable diseases.

Best wishes for a great summer,

**Jennifer Mullendore, MD, MSPH**  
Buncombe County Medical Director





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## PROTECT AGAINST TICK BITES

### TICK FACTS IN WNC

Did you know that tick borne illnesses infect a large number of people in North Carolina every year? While Lyme disease is the most commonly reported tick-borne illness in the United States, the tick-borne illness with the highest incidence rate in North Carolina is RMSF: <https://www.cdc.gov/rocky-mountain-spotted-fever/about/index.html>.

These illnesses are diagnosed from all regions of the state and can be acquired at any time of year. However, because more people are outside during the warmer months, the vast majority occur in the months of June through September. It is important to be aware of these tiny travelers. They can cause much illness with a single bite.



### PREVENTING TICK BITES

In general you should avoid tick habitats including wooded, grassy or brushy areas. If you can't avoid tick habitat, use repellent to reduce the risk of getting bitten. It can take as short as 4 hours for RMSF to infect a person so it's critical to inspect yourself, those you care for, and any pets immediately after potential exposure. Complete information on reducing your chance of exposure to ticks can be found at [www.cdc.gov/ticks](http://www.cdc.gov/ticks)

#### AVOID DIRECT CONTACT WITH TICKS

Basic ways to avoid direct contact with ticks includes, avoiding wooded and bushy areas with high grass and leaf litter, walking in the center of trails or paths and wearing long-sleeved shirt, long pants, and socks and tuck the shirt into the pants and tuck pants into socks.

#### REPEL TICKS WITH DEET OR PERMETHRIN

- Use repellents that contain 20 to 30% DEET (N, N-diethyl-m-toluamide) on exposed skin and clothing for protection that lasts up to several hours. Always follow product instructions. When applying this product, avoid hands, eyes, and mouth.
- **CAMPER TIP:** Use products that contain permethrin on clothing. Treat clothing and gear, such as boots, pants, socks and tents with products containing permethrin, following instructions on product. It remains protective through several washings. Pre-treated clothing is available and may be protective longer.
- Other repellents registered by the Environmental Protection Agency (EPA) may be found at <http://cfpub.epa.gov/oppref/insect/>.

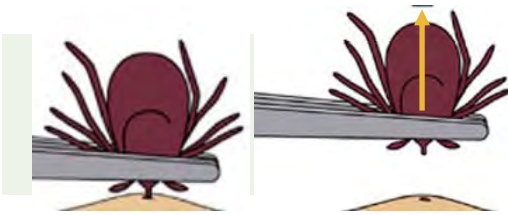
#### TICK INSPECTION AND REMOVAL

- Bathe or shower as soon as possible after coming indoors (preferably within two 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. Parents should check their children for ticks under the arms, in and around the ears, inside the belly button, behind the knees, between the legs, around the waist, and in their hair.
- **CAMPER TIP:** 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.
- Tumble clothes in a dryer on high heat for an hour to kill remaining ticks. (Some research suggests that shorter drying times may also be effective, particularly if the clothing is not wet.)

# PROTECT AGAINST TICK BITES




## HOW TO REMOVE A TICK

1. If a tick is attached to you, use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull the tick straight up and out. Don't twist or jerk the tick—this can cause the mouth parts to break off and stay in the skin. If this happens, remove the mouth parts with tweezers if you can. If not, leave them alone and let your skin heal.
3. Clean the bite and your hands with rubbing alcohol, an iodine scrub, or soap and water.
4. You may get a small bump or redness that goes away in 1-2 days, like a mosquito bite. This is not a sign that you have Lyme disease. **Note:** Do not put hot matches, nail polish, or petroleum jelly on the tick to try to make it pull away from your skin.



*If you remove a tick quickly (within 24 hours) you can greatly reduce your chances of getting Lyme disease.*

## COMMON TICKS & DISEASES

Tick	Disease, Symptoms and Treatment
<b>American dog tick</b> 	<p><b>Rocky Mountain spotted fever (RMSF):</b> Onset of symptoms is three to 14 days (average seven days) after tick bite.</p> <p>Initial symptoms may include: high fever, severe headache, muscle aches, nausea, vomiting and loss of appetite.</p> <p>Later symptoms: rash (2– 6 days after onset of fever), stomach pain, joint pain &amp; diarrhea. Rash starts: small, flat, pink spots that don't itch on wrists and ankles &amp; spreads.</p> <p>It can lead to heart, lung or kidney failure, swelling of the brain, and/or death.</p> <p>Early treatment with antibiotics is important.</p>
<b>Lone Star Tick</b> 	<p><b>Human monocytic ehrlichiosis (HME):</b> Onset of symptoms is 5 to 21 days after tick bite.</p> <p>Symptoms usually include fever, fatigue, headache and muscle aches.</p> <p>Other symptoms: nausea, vomiting, diarrhea, cough, joint pain and confusion.</p> <p>Rash is often absent and more common in children.</p> <p>Severe disease or death occurs rarely.</p> <p>Early treatment with antibiotics is important.</p> <p><b>Southern tick-associated rash illness (STARI) :</b> A newly discovered disease that is treated with antibiotics. Symptoms are indistinguishable from those of early Lyme disease and include a bull's-eye shaped rash, sometimes with fever, headache, muscle pain or fatigue.</p>
<b>Black-Legged Tick</b> 	<p><b>Lyme disease:</b> Onset of symptoms is 3 to 30 days after bite.</p> <p>No rash initially with lyme disease.</p> <p>Early symptoms may include rash, fever, headache, muscle aches, fatigue and joint aches.</p> <p>Some people develop varying, late symptoms. May include: secondary bull's-eye shaped rashes, joint &amp; muscle pain with or without swelling, neurological symptoms &amp; heart problems.</p> <p>Early treatment with antibiotics is key to prevent chronic and disabling symptoms.</p>



## PROTECT AGAINST MOSQUITO BITES

### WNC MOSQUITO FACTS

Mosquitoes are serious business in WNC. Protecting yourself and your children against these pesky creatures is a smart move. Eliminating all standing water around your home, camp, and anywhere **else** that mosquitoes can breed will help to reduce their numbers and keep you itch-free and healthy.

The illnesses most commonly transmitted by mosquitoes in North Carolina are West Nile virus (in humans and horses), eastern equine encephalitis (in humans and horses) and La Crosse encephalitis.

LaCrosse encephalitis is unique in that over 75% of North Carolina's cases are reported from the southwestern portion of NC, primarily Henderson, Transylvania, Jackson, Swain, Haywood and Buncombe Counties. Prime camp settings!

In general, most cases of mosquito-borne illness show no or mild symptoms, but severe cases can occur. Illness usually begins with the sudden onset of headache, high fever, chills and vomiting. The illness may become more serious and involve disorientation, seizures or coma, significant brain damage or death. There is no specific cure for these mosquito-borne illnesses; therapy is limited to treating the symptoms of the disease.

In North Carolina, the viruses that cause illness occur naturally in wild animals, such as birds or small mammals. They are spread from animal to animal by mosquito bites. If mosquito populations grow very large, there is an increased risk of an infected mosquito biting a person or domestic animal, like a horse. Mosquito-borne diseases are seen most often during the late summer or early fall, but they can occur whenever mosquitoes are active.

### PREVENTING MOSQUITO BITES

#### AVOID DIRECT CONTACT WITH MOSQUITOES

The best way to avoid becoming ill from a mosquito-borne virus is to prevent mosquito bites.

1. **Use repellent:** When outdoors, use insect repellent containing DEET, picaridin, IR3535 or oil of lemon eucalyptus on exposed skin as well as on clothing (mosquitoes will bite through thin cloth). **CAMP TIP:** Permethrin is a repellent/insecticide that can be applied to clothing and will provide excellent protection through multiple washes. You can treat clothing yourself (always follow the directions on the package!) or purchase pre-treated clothing. For best protection it is still necessary to apply other repellent to exposed skin.
2. **Wear protective clothing:** Wear long sleeves, pants, and socks when weather permits.
3. **Avoid peak biting hours:** Avoid outdoor activity when mosquitoes are active.
4. **Install and repair screens:** Make sure that all screens are secure and intact.
5. **Keep mosquitoes from laying eggs near you:** Mosquitoes can lay eggs even in small amounts of standing water. Get rid of mosquito breeding sites by emptying standing water from flower pots, tree holes, buckets, barrels, and tires. Change the water in pet dishes and replace the water in bird baths weekly. Drill holes in tire swings so water drains out. Empty children's wading pools and store on their side after use.

#### USE PRECAUTIONS WHEN TRAVELING

Remember to use precautions when you travel as well. Every year people in North Carolina acquire Malaria, Dengue and Chikungunya while traveling. **If you come home with these infections it is possible that you could establish local transmission in NC.** The best practice is to avoid acquiring the illness by wearing repellents.







# PROTECT AGAINST MOSQUITO BITES

## COMMON MOSQUITO DISEASES AND SYMPTOMS

Disease	How It Spreads	Symptoms and Treatment
<b>La Crosse encephalitis</b>	La Crosse encephalitis is the most frequently reported arboviral illness in the state of NC. LAC appears to be maintained in small mammals such as squirrels and is transmitted by mosquito species that breed in tree-holes or small containers that hold water.	<p>The incubation period for La Crosse virus (LACV) disease (the time from infected mosquito bite to onset of illness) ranges from 5 to 15 days. LACV disease is usually characterized by fever (usually lasting 2-3 days), headache, nausea, vomiting, fatigue (tiredness), and lethargy (reduced activity or alertness). Severe neuroinvasive disease (disease affecting the nervous system) occurs most frequently in children under the age of 16. Coma and paralysis occur in some cases</p> <p>No specific antiviral treatment for LAC encephalitis is available. Patients with suspected LAC encephalitis should be hospitalized, appropriate serologic and other diagnostic tests ordered, and supportive treatment (including seizure control) provided. Most patients seem to experience full recovery.</p>
<b>West Nile virus</b>	West Nile virus was first found in the U.S. in 1999 and has spread across the country. Carried by birds, the disease is spread when a mosquito bites an infected bird and then bites a person or an animal such as a horse.	<p>Most people with WNV have no symptoms. About 1 in 5 people will have symptoms including fever, headache, body aches, joint pains, vomiting, diarrhea, or rash. Most people will recover completely, but tiredness and weakness can last for weeks or months.</p> <p>Less than 1% of infected people will develop a serious neurological illness such as encephalitis or meningitis (inflammation of the brain or the surrounding tissue). Symptoms of neurologic illness can include headache, high fever, neck stiffness, disorientation, coma, tremors, seizures, or paralysis.</p> <p>Currently there is no vaccine or antiviral treatment for West Nile virus infection. Over-the-counter pain relievers can be used to lower fever or relieve symptoms. In severe cases, patients often need to be hospitalized to receive supportive treatment.</p>
<b>Eastern Equine Encephalitis</b>	Eastern Equine Encephalitis is also a bird disease and is associated with mosquitoes that live in freshwater swamps and bite birds. EEE is most likely to occur in coastal or eastern piedmont areas late in the summer or early fall.	<p>EEEV infection can result in one of two types of illness, systemic or encephalitic (EEE). Systemic infection has an abrupt onset and is characterized by chills, fever, malaise, arthralgia, and myalgia. The illness lasts 1 to 2 weeks; recovery is complete when there is no central nervous system involvement. In infants, the encephalitic form is characterized by abrupt onset; in older children and adults, encephalitis is manifested after a few days of systemic illness. Signs and symptoms in encephalitic patients are fever, headache, irritability, restlessness, drowsiness, anorexia, vomiting, diarrhea, cyanosis, convulsions, and coma.</p> <p>No specific antiviral treatment for EEEV infections is available. Patients with suspected EEE should be hospitalized, appropriate serologic and other diagnostic tests ordered, and supportive treatment provided.</p>

FOR MORE INFORMATION:

About insect repellent use and safety: [https://www.cdc.gov/mosquitoes/pdfs/MosquitoBitePreventionUS\\_508.pdf](https://www.cdc.gov/mosquitoes/pdfs/MosquitoBitePreventionUS_508.pdf)

About repellent protection times: <https://www.cdc.gov/mosquitoes/prevention/index.html>



## PROTECT AGAINST RABIES

### RABIES FACTS

Rabies is a preventable viral disease of mammals most often transmitted through the bite or saliva of a rabid animal. In North Carolina, the disease most often occurs in wild animals especially skunks, raccoons, bats and foxes.

Raccoon rabies is present in the raccoon population in virtually every North Carolina county. However, most human cases have been traced to bats. Bat bites can be difficult to detect and may not cause a person to wake from a sound sleep.

The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people are similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. As the disease progresses, more specific symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of these symptoms.



### WHAT ARE THE SYMPTOMS IN ANIMALS?



Some animals may show no symptoms at all. Others may have some or all of these symptoms:

- Unusually aggressive behavior (attacking, biting)
- Increased drooling
- Stumbling or falling
- Refusing to eat
- Moving slowly or appearing paralyzed
- Wild animal may lose fear of people

### PREVENTING RABIES

#### Protect yourself and campers from wild or rabid animal bites:

- **Keep rabies vaccinations up-to-date for all cats, ferrets, dogs and horses.** If your pet's vaccinations have expired or you cannot readily locate proof of current rabies vaccinations, get your pets to a veterinarian and have them vaccinated IMMEDIATELY. There are low cost rabies vaccination clinics throughout the year.
- **Stay away from wild animals and any animal you don't know.** Teach children to stay away from these animals. Don't try to feed, touch, or play with a wild animal.
- **Don't allow pets to run at large.**
- **Secure garbage in containers** and take trash containers out in the morning or pick up, not the night before. Trash can attract wild animals that may be carrying rabies.
- **Secure crawl spaces** under sheds, porches, decks and homes that could house rabid animals.
- **Call animal control** to have any sick, injured, or aggressive wild animal removed. Animal control does not remove healthy stray or wild animals.
- Be aware that any food left outside will attract animals. Campers should take precautions with food while outdoors, especially overnight.



## PROTECT AGAINST RABIES

### PROTECT YOURSELF FROM BAT BITES

Since most human cases are linked to bat bites, it is important to take precautions to protect yourself while you sleep. Bites from bats are so small that they are difficult to notice. Bottom Line: if the bat is not caught, it cannot be tested for rabies, which means that the victim will have to begin expensive medical interventions. Follow these steps to avoid this unpleasant scenario:



*Most human cases of rabies have been traced to bats. Bat bites can be difficult to detect and may not cause a person to wake from a sound sleep.*

1. **Avoid contact with bats.** If you find a bat during daylight hours, it is most likely unhealthy and should not be touched.
2. **Seal living spaces from bats.** Do not sleep in a home, cabin, tent, shelter or other lodging facility if bats have access to the living space.
3. **If you find a bat inside, close it off in a room.** If you awaken to find a bat in your room, tent, or cabin, close it off in a room. Do not release the bat so it can be safely captured by professionals and tested for rabies. Do not try to capture the bat yourself.
4. **Call Animal Control.** Once you have secured the bat inside a room, immediately call your local Animal Control for help so they can capture the bat and test it for rabies. Never handle a bat or any dead animal with your bare hands. The bat should be safely captured and tested for rabies as quickly as possible, and you should seek medical advice immediately. This is also true if a bat is found in a room with an infant or young child, even if they are awake, as they may have been bitten but are unable to say so.

### STEPS TO TAKE WHEN BITTEN OR EXPOSED

**Take Action If You Are Bitten or Exposed to the Saliva of a Rabid Animal.** If you or someone in your family is exposed to a rabid animal, rabies can be prevented through a series of shots called rabies post-exposure prophylaxis (PEP).

IF YOU ARE BITTEN BY ANY ANIMAL, FOLLOW THESE STEPS:

1. Immediately wash the wound well with soap and water and see a healthcare provider or go to the Emergency Department of your local hospital.
2. Contact Animal Control, if you or your pet is bitten, to assist in capturing the animal for observation or rabies testing. If the animal is caught and tested and does not have rabies, you may not need to have post-exposure shots and your pet may not need to be quarantined or put to sleep.

### ANIMAL CONTROL PHONE NUMBERS:

- **Asheville City limits:** Asheville Police (828) 252-1110
- **Buncombe County:** Buncombe County Sheriff's Office (828) 250-6670. Other municipalities such as Biltmore Forest, Black Mountain, Montreat, Weaverville, or Woodfin should also call Buncombe County Animal Control at (828) 250-6670.
- **For questions** about rabies exposure and treatment, contact the Buncombe County Communicable Disease Control program at (828) 250-5109.  
**What you do matters:** be aware and get your pets vaccinated to help stop the spread of this dangerous disease.



## PROTECT AGAINST DANGEROUS DISEASE

### GET IMMUNIZED. IMMUNIZATIONS WORK!

We all have a part to play in the shield of protection against dangerous diseases. Unfortunately there are cracks in our community's shield of protection: parts of WNC are under-immunized, leaving our region at risk for disease outbreaks. It is worth noting that children come from all over the United States and internationally to summer camps in our region. If your child is not immunized, they could be at risk for catching very serious vaccine-preventable diseases.

Diseases like Polio, Measles, Mumps, Rubella, Pertussis (Whooping Cough), Hepatitis, and Meningitis are not a thing of the past as we have seen with the recent measles outbreaks. When your child is immunized, they are protected and help to build a shield around your child and their fellow campers. Some children cannot be immunized for medical reasons (for example, because of low immunity due to a medical condition). **It is critical that campers and staff are up to date on their immunizations** to help protect everyone.

**PARENT TIP:** Remember, your child will be in a communal setting at camp. If your child is immunized, they are a part of the shield of protection that keeps disease outbreaks from occurring in these settings. Immunizations not only protect them at camp and in school, but throughout their life. We also encourage getting the Hepatitis A, HPV, Flu, and Pneumococcal vaccination for all children to help further protect them. If you have questions about immunizations for your child, please see your doctor or health care provider and ask about catching up on any missed vaccinations.

#### TIPS FOR CAMP ADMINISTRATORS\*

**Know each camper and staff member's immunization status.** Require an immunization record (including month and year for each type of immunization) for each camper and staff member on the camp's health history form. This is particularly important when a vaccine-preventable illness occurs.

**Decide if you will allow unvaccinated campers and staff at your camp.** Understand the risk if you do accept a camper or staff member who has not been immunized for measles. If someone is not immunized and comes in contact with an infected person, many public health departments have initiated mandatory 21 day quarantine.

**Understand the facts about the disease.** Measles is a highly contagious disease caused by a virus. Measles can be serious — even fatal — for young children. While rare, it can lead to pneumonia, encephalitis (swelling of the brain), and death. People exposed to measles who have not been vaccinated almost always get measles.

**Understand why there has been an outbreak in the United States.** As of February 2015, 150 new cases of measles have been reported across 16 states in the United States. Public health officials have declared that the disease has spread in part because of lower rates of vaccination in certain parts of the U.S.

**Ensure you have educated healthcare staff.** While only a physician can diagnose measles, ensure that your healthcare staff understand the symptoms and have procedures in place to immediately seek medical care if measles is suspected.

**Consider tracking the percent of immunized campers and staff at your camp.** This may be important information for parents of children who cannot be immunized; it helps them understand the potential risk exposure for their child.

\*Adapted from the American Camp Association: [www.acacamps.org/campline/spring-2015/emerging-issues-measles-communicable-disease](http://www.acacamps.org/campline/spring-2015/emerging-issues-measles-communicable-disease)





## PROTECT AGAINST DANGEROUS DISEASE

### REQUIRED AND RECOMMENDED IMMUNIZATIONS IN NORTH CAROLINA FOR ADOLESCENTS

#### REQUIRED IMMUNIZATIONS

Diphtheria	Pertussis (whooping cough)
Hepatitis B	Polio
Measles	Rubella
Meningococcal	Tetanus
Mumps	Varicella (chickenpox)

#### RECOMMENDED IMMUNIZATIONS

The CDC also recommends children be vaccinated against the following diseases, although immunization against these diseases is not required for children in North Carolina:

- Hepatitis A
- HPV
- Influenza
- Pneumococcal Disease

For more information about immunizations, visit:

**Buncombe County:** <https://www.buncombenc.gov/434/Immunizations>

**NC Department of Health and Human Services:** [www.immunize.nc.gov](http://www.immunize.nc.gov)

**Centers for Disease Control & Prevention (CDC):** [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)

**American Academy of Pediatrics:** [www.immunize.org](http://www.immunize.org)

**Immunization Action Coalition:** [www.vaccineinformation.org](http://www.vaccineinformation.org)

**The Children's Hospital of Philadelphia:** <https://www.chop.edu/vaccine-education-center>





## PROTECT AGAINST COMMON DISEASES

### NOROVIRUS - THE STOMACH BUG

Norovirus is a highly contagious virus, commonly referred to as “the stomach bug.” Norovirus infection causes gastroenteritis (inflammation of the stomach and intestines). This leads to diarrhea, vomiting, and stomach pain.

Norovirus illness is often called by other names, such as food poisoning and stomach flu. Noroviruses can cause food poisoning, as can other germs and chemicals. Norovirus illness is not related to the flu (influenza). Though they share some of the same symptoms, the flu is a respiratory illness caused by influenza virus.

#### ANYONE CAN GET NOROVIRUS ILLNESS

- **Norovirus is the most common cause of acute gastroenteritis in the U.S.**
- Each year, norovirus causes 19 to 21 million cases of acute gastroenteritis in the U.S.
- There are many types of norovirus and you can get it more than once.



#### NOROVIRUS ILLNESS CAN BE SERIOUS

- Norovirus illness can make you feel extremely sick with diarrhea and vomiting many times a day.
- Some people may get severely dehydrated, especially young children, the elderly, and people with other medical conditions.
- Each year, norovirus causes 56,000 to 71,000 hospitalizations and 570 to 800 deaths, mostly in young children and the elderly.

#### NOROVIRUS SPREADS VERY EASILY AND QUICKLY

- **It only takes a very small amount of norovirus particles (fewer than 100) to make you sick.**
- People with norovirus illness shed billions of virus particles in their stool and vomit and can easily infect others.
- You are contagious from the moment you begin feeling sick and for the first few days after you recover.
- Norovirus can spread quickly in enclosed places like childcare centers, nursing homes, schools, and cruise ships.
- Norovirus can stay on objects and surfaces and still infect people for days or weeks.
- Norovirus can survive some disinfectants, making it hard to get rid of.

#### NOROVIRUS CAN SPREAD IN MANY WAYS

Norovirus can spread to others through direct contact with an infected person, eating food or drinking liquids that are contaminated with norovirus, touching objects that have norovirus on them and then putting your fingers in your mouth, or sharing utensils or cups with people who are infected with norovirus.

#### **THERE'S NO VACCINE TO PREVENT NOROVIRUS INFECTION & NO DRUG TO TREAT IT**

Antibiotics will not help with norovirus illness because antibiotics do not work on viruses.

When you have norovirus illness, drink plenty of liquids to replace fluid loss and prevent dehydration.



## PROTECT AGAINST COMMON DISEASES

### 5 TIPS TO PREVENT NOROVIRUS FROM SPREADING

#### 1 . PRACTICE PROPER HAND HYGIENE

Always wash your hands carefully with soap and water after using the toilet and changing diapers, and before eating, preparing, or handling food.

**NOTE: Soap and water are still the best defense against norovirus.** Alcohol-based hand sanitizers must only be used when soap and water are unavailable.

#### 2 . WASH FRUITS AND VEGETABLES AND COOK SEAFOOD THOROUGHLY

Carefully wash fruits and vegetables before preparing and eating them. Cook oysters and other shellfish thoroughly before eating them.

Be aware that noroviruses are relatively resistant. They can survive temperatures as high as 140°F and quick steaming processes that are often used for cooking shellfish.

Food that might be contaminated with norovirus should be thrown out. Keep sick infants and children out of areas where food is being handled and prepared.

#### 3 . WHEN YOU ARE SICK, DO NOT PREPARE FOOD OR CARE FOR OTHERS

You should not prepare food for others or provide healthcare while you are sick and for at least 2 to 3 days after you recover. This also applies to sick workers in schools, childcares, and other places where they may expose people to norovirus.

#### 4 . CLEAN AND DISINFECT CONTAMINATED SURFACES

After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces. Use a chlorine bleach solution with a 1:10 bleach and water mixture (1 part bleach, 10 parts water) or other disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA).

#### 5 . WASH LAUNDRY THOROUGHLY

Immediately remove and wash clothes or linens that may be contaminated with vomit or stool (feces). You should

- handle soiled items carefully without agitating them
- wear rubber or disposable gloves while handling soiled items and wash your hands after, and wash the items with detergent at the maximum available cycle length, then machine dry them

Visit CDC's Norovirus Web site at [www.cdc.gov/norovirus](http://www.cdc.gov/norovirus) for more information.



## PROTECT AGAINST COMMON DISEASES

### MRSA (METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS)

#### 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?

**PAY ATTENTION!** 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

#### WHAT IF I SUSPECT A 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 CAMPERS 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







## PROTECT AGAINST COMMON DISEASES

### CLEANERS, SANITIZERS, AND DISINFECTANTS

**Cleaners or detergents** are products that are used to remove soil, dirt, dust, organic matter, and germs (like bacteria, viruses, and fungi). Cleaners or detergents work by washing the surface to lift dirt and germs off surfaces so they can be rinsed away with water. The same thing happens when you wash your hands with soap and water or when you wash dishes. Rinsing is an important part of the cleaning process. Use these products for routine cleaning of surfaces.

**Sanitizers** are used to reduce germs from surfaces but not totally get rid of them. Sanitizers reduce the germs from surfaces to levels that are considered safe.

**Disinfectants** are chemical products that destroy or inactivate germs and prevent them from growing. Disinfectants have no effect on dirt, soil, or dust. Disinfectants are regulated by the U.S. Environmental Protection Agency (EPA). You can use a disinfectant after cleaning for surfaces that have visible blood or drainage from infected skin.

Read the label first. Each cleaner and disinfectant has instructions on the label that tell you important facts.



#### WHICH DISINFECTANTS SHOULD I USE AGAINST MRSA?

Disinfectants effective against *Staphylococcus aureus* (staph) are most likely also effective against MRSA. These products are readily available from grocery stores and other retail stores. Check the disinfectant product's label on the back of the container. Most, if not all, disinfectant manufacturers will provide a list of germs on their label that their product can destroy. **NOTE:** Use disinfectants that are registered by the EPA (check for an EPA registration number on the product's label to confirm that it is registered).

#### HOW SHOULD CLEANERS AND DISINFECTANTS BE USED?

Read the label first. Each cleaner and disinfectant has instructions on the label that tell you important facts:

- How to apply the product to a surface.
- How long you need to leave it on the surface to be effective (contact time).
- If the surface needs to be cleaned first and rinsed after using.
- If the disinfectant is safe for the surface.
- Whether the product requires dilution with water before use.
- Precautions you should take when applying the product, such as wearing gloves or aprons or making sure you have good ventilation during application.

### LAUNDRY

Routine laundry procedures, detergents, and laundry additives will all help to make clothes, towels, and linens safe to wear or touch. If items have been contaminated by infectious material, these may be laundered separately, but this is not absolutely necessary.



# PROTECT AGAINST COMMON DISEASES

## FACILITY CLEANING & DISINFECTION AFTER A MRSA INFECTION

When MRSA skin infections occur, cleaning and disinfection should be performed on surfaces that are likely to contact uncovered or poorly covered infections. If you have any questions about sanitizing for MRSA, please do not hesitate to contact the HHS Communicable Disease team at (828) 250-5109. We are here to help!

- Cleaning surfaces with detergent-based cleaners or Environmental Protection Agency (EPA)-registered disinfectants is effective at removing MRSA from the environment.
- It is important to read the instruction labels on all cleaners to make sure they are used safely and appropriately.
- Environmental cleaners and disinfectants should not be used to treat infections. The EPA provides a list of [EPA-registered products effective against MRSA](#).



## SURFACES TO CLEAN

Focus on surfaces that touch people's bare skin each day and any surfaces that could come into contact with uncovered infections. For example, surfaces such as benches in a weight room or locker rooms.

Use a targeted approach of cleaning frequently touched surfaces and any surfaces that have been exposed to infections.

Large surfaces such as floors and walls have not been directly associated in the spread of staph and MRSA.

## SHARED EQUIPMENT

Shared equipment that comes into direct skin contact should be cleaned after each use and allowed to dry. Equipment, such as helmets and protective gear, should be cleaned according to the equipment manufacturers' instructions to make sure the cleaner will not harm the item.

## CLEANING KEYBOARDS AND OTHER DIFFICULT SURFACES

Many items such as computer keyboards or handheld electronic devices may be difficult to clean or disinfect or they could be damaged if they became wet. If these items are touched by many people during the course of the day, a cleanable cover/skin could be used on the item to allow for cleaning while protecting the item. Always check to see if the manufacturer has instructions for cleaning.

## IS IT CLEAN?

Although in most situations you will not know if a surface has been cleaned, it's important to remember that most surfaces do not pose a risk of spreading MRSA. If cleaning procedures are unknown, take the appropriate precautions such as:

- Using barriers like a towel or clothing between your skin and the surface.
- Showering immediately after activities where you have direct skin contact with people or shared surfaces, such as after exercising in a weight room.
- Cleaning your hands regularly and keeping cuts and scrapes clean and covered with bandages or dressing until healed.
- These precautions are especially important in settings such as in locker rooms, gyms, and health clubs.

# PROTECT WITH SIMPLE PREVENTION STEPS

## ISOLATE AND REPORT SICK CAMPERS

### PHYSICALLY SEPARATE ILL FROM WELL CAMPERS AND STAFF

- At day camps, ill campers or staff members must be immediately isolated at the camp's infirmary or holding area and arrangements made to send them home.
- At overnight camps, campers or staff members must be isolated from other campers in the infirmary or a location separate from uninfected campers and staff. Depending on the camp context and duration, camp directors may want to consider sending home campers and staff with illness or closing the camp.
- Exclude ill persons from duties and/or activities until permission is granted by the health director to resume.
- Restrictions from activities and isolation periods for ill individuals vary based on the type of illness. Consult your local health department for the appropriate length of time period of isolation and activity restrictions for ill individuals to effectively prevent the spread of the illness throughout the camp.
- Any camper and staff who are sent home should seek prompt medical attention.
- New arrivals should not be housed with sick or recovering campers and staff.
- Limit entry/exit from camp; postpone or restrict activities involving visitors, including other camps.



### REPORTING AND NOTIFICATION

- Camps are required to notify their local health department within 24 hours of illnesses suspected of being water, food, or air-borne, or spread by contact. Local and state health departments are available to consult on prevention and control of any case or outbreak of illness in a camp.
- Notify parents of any illnesses and outbreaks. Please contact your local health department for assistance or template letters that can be used.
- If you or someone you are caring for is dehydrated, call a doctor.

To make a communicable disease report in Buncombe County, call (828) 250-5109.

### FOR ADDITIONAL INFORMATION:

1. CDC information on preventing mosquito bites: <https://www.cdc.gov/mosquitoes/prevention/index.html>
2. CDC information on preventing tick bites: <https://www.cdc.gov/ticks/prevention/index.html>
3. Information on tick and mosquito borne diseases in NC:  
<https://epi.dph.ncdhhs.gov/cd/diseases/vector.html>
4. North Carolina Tick-Borne disease poster: [https://epi.dph.ncdhhs.gov/cd/ticks/tick\\_poster\\_11x17.pdf](https://epi.dph.ncdhhs.gov/cd/ticks/tick_poster_11x17.pdf)

If you need any other information or would like to have copies of the tick-borne disease poster please contact Jodi Reber or Carl Williams at 919-733-3419.

# Wash Your Hands!

## ¡Lávese Las Manos!



**1 Wet Hands**  
Mójese las manos



**2 Soap**  
Enjabónese



**3 Wash for 20 seconds**  
Lávese las manos por 20 segundos



**4 Rinse**  
Enjuáguese



**5 Dry**  
Séquese las manos

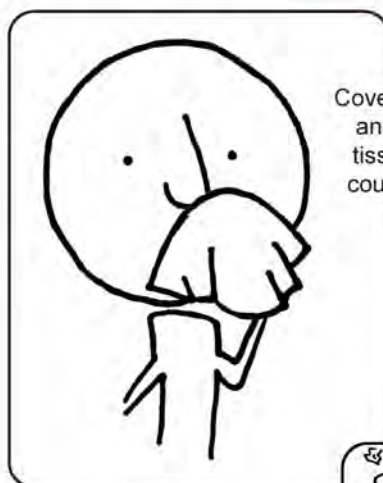


**6 Turn Off Water** with Paper Towel  
Cierre el grifo usando una toalla de papel



Stop the spread of germs that make you and others sick!

# Cover your Cough



Cover your mouth  
and nose with a  
tissue when you  
cough or sneeze

or

cough or sneeze into  
your upper sleeve,  
not your hands.



Put your used tissue in  
the waste basket.



You may be asked to  
put on a surgical mask  
to protect others.

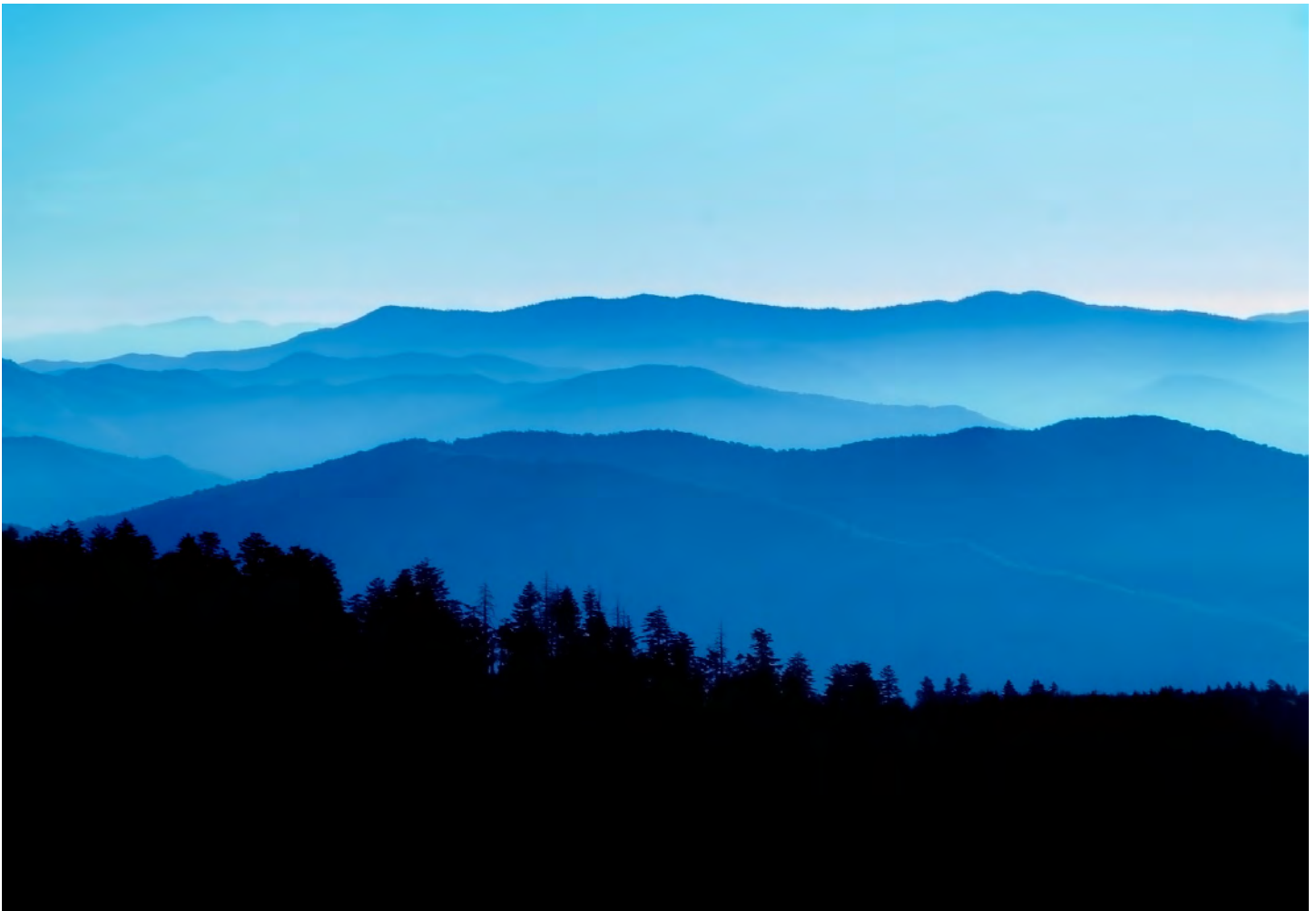
Clean  
your  
Hands  
after coughing or sneezing.



Wash with  
soap and water

or  
clean with  
alcohol-based  
hand cleaner.





## HELPFUL CONTACTS:

**Questions, concerns or to report communicable disease in Buncombe County:**

**Communicable Disease Control:**

(828) 250-5109

**Animal Control:**

Buncombe County: (828) 250-6670

City of Asheville: (828) 252-1110

**Buncombe County Immunization Clinic:**

(828) 250-5096

**NC Wildlife Interaction Helpline:**

(866) 318-2401



**BUNCOMBE COUNTY**  
HEALTH & HUMAN SERVICES

[www.buncombenc.gov](http://www.buncombenc.gov)

(828) 250-5000

# Measles

## What is measles?

Measles is an illness caused by a virus. It spreads very easily and can cause serious health issues.

## What are the symptoms of measles?

Measles symptoms begin about 7 – 14 days after a person is infected.

- Measles starts with a high fever (101° F or higher), cough, runny nose, and red, watery eyes.
- 2 – 3 days after symptoms start, tiny white spots may appear inside the mouth.
- 3 – 5 days after symptoms start, a rash of flat red spots appears on the face at the hairline. It spreads down to the neck, chest, back, stomach, arms, legs, hands and feet. Small raised bumps may appear on top of the spots. When the rash appears, the fever may climb to 104° F or higher.

## How is measles spread?

- Measles spreads through the air when someone who has it coughs or sneezes.
- The measles virus can live for up to 2 hours in the airspace where an infected person coughed or sneezed. If another person breathes the same air, or touches an infected surface and then touches their eyes, nose or mouth, they can become sick with measles.
- **Measles spreads so easily that if one person has it, 9 out of 10 non-immune people close to them also will become sick.**
- A person with measles can spread it to others as early as 4 days before they have the rash and for up to 4 days after the rash starts.
- **If you think you have measles, stay home from work, school, or other activities. Call your healthcare provider or urgent care BEFORE you show up at the clinic.**

## How serious is measles?

Measles can be serious in all age groups. However, it can be most dangerous for children < 5 years old, adults > 20 years old, pregnant women and people with weak immune systems.

- 1 out of 4 people with measles will be hospitalized
- 1 in 20 children with measles gets pneumonia, which is the most common cause of death from measles in young children
- 1 in 1,000 children with measles will develop encephalitis (swelling of the brain) that can lead to seizures, hearing loss or intellectual disability.
- 1 or 2 out of 1,000 children who get measles will die from it, even with the best care.
- Measles can also make a pregnant person give birth too early or have a low-birthweight baby.

## How is measles treated?

There is no specific treatment for measles. Medicine may be used to treat fever or other symptoms.

**IMPORTANT:** Do not give aspirin to children because of the risk of Reye's syndrome, which can cause brain damage and death.

## Can measles be prevented?

**The best way to protect yourself and your family from measles is to get the MMR vaccine.** This vaccine also prevents mumps and rubella. Getting the MMR vaccine is safer than getting measles. **Make sure you and your family members are up-to-date on your immunizations.**

## Immunizations are a shield of protection for you, your family and our community.

Measles is common in many parts of the world. Every year, measles is brought into the US by unvaccinated travelers (mostly Americans and sometimes visitors from other countries) who get measles while they are outside the US. Anyone who is not protected against measles is at risk.

5/2019

### For more information

Disease Control ~ 828.250.5109

Located at 40 Coxe Ave, downtown Asheville, NC 28801



[www.buncombenc.gov](http://www.buncombenc.gov)

## Pertussis (Whooping Cough)

### What is pertussis?

Pertussis is an illness of the airways and lungs that spreads very easily. It is also known as whooping cough.

### Who gets pertussis?

While most pertussis infections are seen in children less than five years of age, anyone can get sick with it.

Pertussis vaccines are effective, but not perfect. People who have been vaccinated against pertussis may still get infected, but usually have milder symptoms.

Many babies who get sick with pertussis are infected by older siblings, parents, or caregivers who do not know they have it.

### How is it spread?

The germ that causes pertussis can be spread from person to person through the air when someone who has pertussis coughs or sneezes.

### How serious is pertussis?

Pertussis can cause serious illness in people of all ages, but it is especially dangerous for infants and young children who are not fully vaccinated.

- About 1 in 3 babies younger than 1 year old who get whooping cough need care in the hospital, and 1 in 100 babies who get treatment in the hospital die.

### When do symptoms begin?

Symptoms of pertussis usually start within 5 – 10 days after being around someone with the infection, but sometimes symptoms do not start until 3 weeks later.

### What are the symptoms?

Early symptoms of pertussis usually include:

- Runny or stuffed-up nose
- Mild, occasional cough (babies do not have this symptom)
- Low-grade fever (less than 100.4 °F)
- Apnea (life-threatening pauses in breathing) and cyanosis (turning blue or purple) in babies and young children

After 1 - 2 weeks, violent, uncontrolled coughing fits may start. They usually last 1 – 6 weeks and can cause people to:

- Make a high-pitched “whoop” sound when they are finally able to inhale at the end of a coughing fit
- Vomit during or after coughing fits
- Feel very tired after the fit, but usually seem well between fits
- Struggle to breathe

Older children and adults, especially those who have been vaccinated, may have milder symptoms.

### How do you prevent pertussis?

**The best way to prevent pertussis is to get vaccinated.**

- Babies and children younger than 7 years old should get the DTaP vaccine on the recommended vaccination schedule.
- Older children and adults should get the Tdap vaccine.
- Pregnant people should get the Tdap vaccine in the 3<sup>rd</sup> trimester of each pregnancy to help protect their babies.

### Other ways to prevent the spread of pertussis:

- Cover nose and mouth when coughing or sneezing.
- Wash hands often with soap and water or use an alcohol-based hand sanitizer.

### For more information

Communicable Disease ~ 828.250.5109  
40 Coxe Ave, Asheville, NC 28801



[www.buncombenc.gov](http://www.buncombenc.gov)