



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

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To: Local Environmental Health Staff, Local Health Directors and Summer Camp Directors

From: Zack Moore, MD, MPH, State Epidemiologist

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Subject: **Measles, Rabies and Norovirus – Information for Summer Camps**

North Carolina summer camps provide children from all over the world both physical and educational opportunities. Ensuring a rewarding and safe camp experience is important to parents, staff, and the North Carolina Division of Public Health. North Carolina Public Health encourages camp directors to be aware of the following public health concerns:

Measles

Measles is a highly contagious respiratory viral disease that is preventable by the measles-mumps-rubella (MMR) vaccine. Over 800 hundred cases of measles have been identified in the United States since the beginning of 2019.

Below are tips for camp administrators:

- Review the facts about measles. Measles is extremely contagious and causes a high fever, cough, runny nose and red, watery eyes followed 3–5 days later by a rash that usually starts on the face and spreads downward.
- Know what to do when a camper or staffer falls ill. While only a physician should evaluate a patient for measles, camp staffers and administrators should understand the symptoms and have procedures in place to ensure campers receive proper medical care.
- Be able to access a record of each camper and staff member's immunization status.
- Consider requiring all campers and staff to be vaccinated for measles or have evidence of immunity (e.g. laboratory test). Understand that if a case of measles is identified at your camp isolation of cases and quarantine of non-immune campers and staff would be required by public health.

For additional information about measles, visit the CDC website at <https://www.cdc.gov/measles/about/index.html>.

Rabies

Rabies is a disease that, while rare in humans, is almost invariably fatal. Wild mammals may be infected with rabies, and in North Carolina the virus has been found in bats, raccoons, skunks, foxes, beaver, groundhogs, bobcats, coyotes and other large carnivores. People can get rabies if they are bitten by a rabid animal or if saliva from the animal gets into an open wound or into the eyes, nose or mouth. People

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who are exposed to rabies should promptly receive post-exposure prophylaxis (immune globulin and vaccine series), which are 100% effective in preventing the disease.

Bats are of particular concern because bat bites are small and exposures may go unnoticed. Exposures of concern include any direct contact with a bat and when a bat is found in the same room as a person who may not be aware that contact has occurred (e.g., a sleeping person awakens to find a bat in the room, or an adult witnesses a bat in the room with a previously unattended child or mentally disabled or inebriated person). Finding a bat in a cabin can result in large numbers of campers and staff being referred for rabies post-exposure prophylaxis with extensive risk assessments and investigations conducted by local and state health departments.

Here are some resources that can be used to prevent wildlife and bat exposures in camps:

- **Information on rabies prevention and control in North Carolina:** The NC Rabies Control Manual: <http://epi.publichealth.nc.gov/cd/lhds/manuals/rabies/toc.html>
- **Inspection criteria to ensure summer camp buildings are bat proof:**http://epi.publichealth.nc.gov/cd/rabies/docs/Bat_Proof_Camp_Checklist.pdf.
- **Guidance on bat-proofing buildings at camps:** BATS: Safety and Risk Management at Camp http://www.cdc.gov/rabies/pdf/bats_final_508.pdf
- **Information about medical care after an animal bite or rabies exposure:** CDC: Wound Care and Rabies Post-exposure Prophylaxis http://www.cdc.gov/rabies/medical_care/index.html.
- **List of professional Wildlife Damage Control Agents (professionals that can be hired to exclude bats and wildlife):** See the Wildlife Resources Commission website: <http://www.ncwildlife.org/Trapping/WildlifeDamageControlAgent.aspx>
- **Information on bats and rabies:** CDC: Bats and Rabies <https://www.cdc.gov/rabies/exposure/animals/bats.html>
- **North Carolina rabies statistics:** NC Division of Public Health: Rabies Facts and Figures <http://epi.publichealth.nc.gov/cd/rabies/figures.html>

Norovirus

Norovirus is a very contagious virus that can cause vomiting and/or diarrhea. Fortunately, most people recover without needing medical attention. Reports of norovirus outbreaks in summer camps are not unusual since the virus survives well in the environment and is especially easy to transmit in close quarters. Encouraging campers and staff to wash their hands thoroughly with soap and water, avoiding entry of ill campers/staff, keeping ill individuals away from well individuals, timely and thorough environmental cleaning with the proper product, and prompt reporting of illness are key factors in preventing the spread of norovirus.

Below are additional resources for norovirus prevention and outbreak response in camp settings:

- CDC Healthy Camping: <https://www.cdc.gov/norovirus/infographics/healthy-camping.html>
- CDC Norovirus Prevention and Response in Camps: <https://www.cdc.gov/norovirus/infographics/healthy-camping-factsheet.html>

Who do I call for assistance in North Carolina?

Camp directors should contact their local health department with questions about these conditions. The NC Division of Public Health, Communicable Disease Branch is also available for consultation and can be reached by calling 919-733-3419 (24/7).