

# The Pump Handle



"I had an interview with the Board of Guardians of St. James's parish, on the evening of Thursday, 7th September, and represented the above circumstances to them. In consequence of what I said, the handle of the pump was removed on the following day."

John Snow, 1855

## April 2013 Topics

- Be Food Safe While Barbecuing
- West Nile Virus Season Approaches
- RWII Prevention Week: How Swimmers Contaminate Pools
- Hantavirus Pulmonary Syndrome



### **Be Food Safe While Barbecuing**

Barbecue season is upon us as the weather warms up. The warm weather not only offers us an enjoyable environment to cook and eat with family and friends, but also presents opportunities for bacteria that can cause foodborne illness to thrive. Following some simple guidelines will protect yourself, family and friends during the warm-weather months from foodborne illness while barbecuing.

- Thaw safely
  - Completely thaw meat and poultry before grilling so it cooks more evenly. Use the refrigerator or thaw sealed packages in cold water. For quicker thawing, microwave on defrost if the food will be placed immediately on the grill.
- Marinating
  - Marinate food in the refrigerator, not on the counter. Poultry and cubed meat or stew meat can be marinated up to two days. Beef, veal, pork and lamb roasts, chops and steaks may be marinated up to five days. If the marinade used on raw meat or poultry is to be reused, make sure to let it come to a boil first to destroy any harmful bacteria.

- Keep Everything Clean
  - Do not use the same platter and utensils for raw and cooked meat and poultry. If you are eating away from home, find out if there is a source of clean water. If not, bring water for preparation and cleaning or use moist towelettes for cleaning surfaces and hands.
- Cook Thoroughly
  - Cook food to a safe minimum internal temperature to destroy harmful bacteria. Use a food thermometer to be sure the food has reached a safe minimum internal temperature.
    - Cook all raw beef, pork, lamb and veal steaks, chops and roasts to a minimum internal temperature of 145°F.
    - Cook all raw ground beef, pork, lamb and veal to an internal temperature of 160°F.
    - Cook all poultry to a safe minimum internal temperature of 165°F.
- Leftovers
  - Refrigerate any leftovers promptly in shallow containers. Discard any food left out more than two hours (one hour if temperatures are above 90°F).

Visit [www.foodsafety.gov/keep/events/summervacations](http://www.foodsafety.gov/keep/events/summervacations) for more information on how to keep food safe this summer. For more information or to report a possible foodborne illness, call the North Dakota Department of Health at 701.328.2378 or 800.472.2180, or visit [www.ndhealth.gov/disease/GI](http://www.ndhealth.gov/disease/GI).



### **West Nile Virus Season Approaches**

West Nile virus season is approaching. As the temperatures warm up, mosquitoes grow, reproduce and are able to transmit the disease. People should take precautions to avoid mosquitoes that may carry West Nile virus (WNV) and other mosquito-borne diseases by using insect repellent containing DEET, picaridin, IR3535, oil of lemon eucalyptus or permethrin. Eliminating standing water where mosquitoes can lay eggs and installing or repairing screens on windows and doors are also actions that people can take to help prevent WNV.

The North Dakota Department of Health (NDDoH) will begin dead bird and mosquito surveillance June 1, 2013. The birds that are tested for WNV are corvids and raptors, which include crows, magpies, blue jays, ravens, hawks, eagles, owls and falcons. Birds that are not a corvid or raptor, or are too decomposed for testing, are encouraged to be reported to the NDDoH through either the online dead bird reporting form found at [www.ndhealth.gov/wnv](http://www.ndhealth.gov/wnv), by calling your local public health unit or by calling the NDDoH at 800.472.2180. Additional surveillance activities that the NDDoH uses for monitoring WNV activity in the state include reporting and testing sick horses and other veterinary animals and monitoring illness in humans.

Free human WNV testing will be offered by the NDDoH Division of Laboratory Services June 1, 2013, through September 30, 2013, on serum samples from patients meeting any of the following criteria and in the absence of a more likely clinical explanation.

- Criteria 1 – Neuroinvasive Disease
  - The presence of documented fever is required with at least one of the following:

- Signs of brain dysfunction (e.g., altered mental status, confusion, coma, disorientation and stupor).
- Signs of other neurologic dysfunction (e.g., stiff neck, sensory deficits, abnormal reflexes or movements, paralysis and pleocytosis in cerebrospinal fluid).
- Criteria 2 – Non-neuroinvasive Disease
  - The presence of documented fever is required and should include an additional symptom, such as:
    - Headache, myalgia, arthralgia, malaise, skin rash, photo-phobia, lymphadenopathy, etc.

Questions regarding laboratory testing may be directed to the Division of Laboratory Services at 701.328.6272. More information about WNV reporting and surveillance and weekly updates beginning in June can be found at [www.ndhealth.gov/wnv](http://www.ndhealth.gov/wnv).



### **RWII Prevention Week: How Swimmers Contaminate Pools**

May 20 through May 26, 2013, is Recreational Water Illness and Injury (RWII) Prevention Week. Every year thousands of people get sick with recreational water illnesses, which are caused by germs found in places where we swim. The goal of RWII Prevention week is to raise awareness about healthy and safe swimming.

Di- or tri-chloramines form when chlorine in swimming pools combines with what comes out of (e.g., urine) or washes off of (e.g., sweat and personal care products) swimmer's bodies. Di- and tri-chloramines irritate the eyes and respiratory tract and can even aggravate asthma. The mixing of chlorine with urine not only creates chloramines, it also uses up the chlorine in the pool, which would otherwise kill germs. Chlorine and other pool water treatments do not kill germs instantly. Just one diarrheal incident can release enough germs into the water that swallowing a mouthful can cause diarrhea lasting up to two to three weeks.

Follow these steps to keep yourself and other swimmers from germs:

- Don't swim when you have diarrhea.
- Shower with soap before you start swimming.
- Take bathroom breaks every 60 minutes. Take children on bathroom breaks every 60 minutes or check diapers every 30 to 60 minutes.
  - Change diapers in the bathroom or diaper-changing area and not at poolside where germs can rinse into the water.
- Wash your hands after using the toilet or changing diapers.
- Don't swallow the water you swim in.
- Check the chlorine and pH levels before getting into the water. Proper chlorine (1-3 mg/L or parts per million [ppm]) and pH (7.2-7.8) levels maximize germ-killing power.

For more information about healthy swimming, visit [www.ndhealth.gov/disease/GI/HealthySwimming.aspx](http://www.ndhealth.gov/disease/GI/HealthySwimming.aspx).



### **Hantavirus Pulmonary Syndrome**

Hantavirus Pulmonary Syndrome (HPS) is a severe, sometimes fatal, respiratory disease in humans caused by infection with hantavirus. Anyone who comes into contact with rodents that

carry hantavirus is at risk of HPS. The deer mouse is the host for Sin Nombre virus, which is the hantavirus strain that is the primary causative agent of HPS in the United States. Deer mice are common and widespread in rural areas throughout the United States. The virus is shed in the urine, droppings and saliva of infected rodents. The virus is mainly transmitted to people when they breathe in air contaminated with the virus.

Any activity that puts you in contact with rodent droppings, urine, saliva or nesting materials can place you at risk for infection. Certain activities can put you at an increased potential risk for HPS, such as opening and cleaning unused buildings (e.g., cabins or barns that have been closed during the winter); housecleaning activities; work-related exposures where individuals work in crawl spaces, under houses or in vacant buildings that have a rodent population; and camping and hiking when using infested trail shelters or camps in rodent habitats.

The North Dakota Department of Health offers the following tips for preventing rodent infestation from occurring and for properly disinfecting areas contaminated by rodents:

- For severe or persistent infestations, contact a pest-control professional for rodent eradication or a building contractor for rodent exclusion (rodent proofing).
- Seal all entry holes through which a rodent can enter.
- Clear clutter and tall grass away from buildings to eliminate sources of nesting materials.
- Do not sweep or vacuum areas with evidence of rodent infestation, such as nests or fecal droppings. This action may stir up and aerosolize the viral particles. Wear rubber, latex, vinyl or nitrile gloves.
- Thoroughly wet contaminated area with disinfectant or bleach solution before wiping up with a paper towel. Soiled cleaning materials may be double bagged and discarded in the trash or disinfected before reuse.

Early symptoms of HPS include flu-like symptoms with fever, headache, muscle ache and malaise. Nausea, diarrhea and vomiting may also occur. Four to 10 days after the initial phase, the late symptoms appear including coughing and shortness of breath. HPS can be fatal. The North Dakota Department of Health Division of Laboratory Services offers hantavirus testing when other testing to rule out other potential diagnoses has been exhausted (e.g., influenza). Testing criteria include patient's that are hospitalized, acutely ill (<1-1 ½ weeks) with a respiratory infection. Each sample is assessed on a case-by-case basis by looking at the following: (1) Does the patient have a low platelet count (97% of patients with HPS will have thrombocytopenia)?; (2) Is the patient requiring oxygen and/or intubated?; (3) Is there an accumulation of fluid seen on chest X-rays; and (4) Did the patient have a history of exposure to rodents and/or their droppings? Treatment is supportive with attention to fluids, electrolytes and blood pressure management. Additional information regarding the clinical management of HPS can be found at [www.cdc.gov/hantavirus/technical/hps/treatment.html](http://www.cdc.gov/hantavirus/technical/hps/treatment.html).

For more information on laboratory testing for hantavirus, please call the NDDoH Division of Laboratory Services at 701.328.6272. For more information on HPS, please call the NDDoH Division of Disease Control at 701.328.2378 or 800.472.2180 or visit [www.ndhealth.gov/disease](http://www.ndhealth.gov/disease).

*Contributing authors of The Pump Handle include Alicia Lepp, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Sarah Weninger of the Division of Disease Control, at 701.328.2366 or by e-mail at [sweninger@nd.gov](mailto:sweninger@nd.gov).*

*The pump handle picture in the title was obtained from the website [www.ph.ucla.edu/epi/snow.html](http://www.ph.ucla.edu/epi/snow.html).*



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