

The Update: Huron County

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Frequently asked Questions about E. Coli (Escherichia Coli 0157:H7)

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What is Escherichia coli? Escherichia coli (abbreviated as E. Coli) are a large and diverse group of bacteria. Although most strains of E. coli are harmless, others can make you sick. Some kinds of E. coli can cause diarrhea, while others cause urinary tract infections, respiratory illness and pneumonia, and other illnesses.

What are Shiga toxin-producing E. coli? Some kinds of E. coli cause disease by making a toxin called Shiga toxin. The bacteria that make these toxins are called "Shiga toxin-producing" E. coli , or STEC for short. The most commonly identified STEC in North America is E. coli O 157:H7 (often shortened to E. coli O157 or even just "O157"). When you hear news reports about outbreaks of "E. coli" infections, they are usually talking about E. coli O157.

In addition to E. coli O157, many other kinds (called serogroups) of STEC cause disease. These other kinds are sometimes called "non-O157 STEC."

Who gets STEC infections? People of any age can become infected. Very young children and the elderly are more likely to develop severe illness and hemolytic uremic syndrome (HUS) than others, but even healthy older children and young adults can become seriously ill.

What are some symptoms of STEC infections? The symptoms of STEC infections vary for each person but often include severe stomach cramps, diarrhea (often bloody) , and vomiting. If there is fever, it usually is not very high (less than 101 degrees F). Most people get better within 5-7 days. Some infections are very mild, but others are severe or even life-threatening.

What are the complications of STEC infections? Around 5-10% of those who are diagnosed with STEC infection develop a potentially life-threatening complication known as hemolytic uremic syndrome (HUS). Clues that a person is developing HUS include decreased frequency of urination, feeling very tired, and losing pink color in cheeks and inside the lower eyelids. Persons with HUS should be hospitalized because their kidneys may stop working and they may develop other serious problems. Most persons with HUS recover within a few weeks, but some suffer permanent damage or die. (Continued on page 2)

Source: fda.gov 10/16/09

A monthly newsletter providing local health department reports and information about communicable diseases and community health issues. Our resources include publications by the Centers for Disease Control and Prevention (CDC), such as the Morbidity and Mortality Weekly Report (MMWR);

the Michigan Department of Community Health (MDCH) and other sources. If you would like more information, or have questions about the above topics or other public health issues, please contact Peggy Miller at 989-269-9721, ext 141.

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Our Mission Statement

"We are dedicated to promoting and protecting the health of individuals and families in our service jurisdiction by providing a wide range of quality health and human services"

(continued from page 1)

How soon do symptoms appear after exposure? The time between ingesting the STEC bacteria and feeling sick is called the “incubation period.” The incubation period is usually 3-4 days after the exposure, but may be as short as 1 day or as long as 10 days. The symptoms often begin slowly with mild belly pain or non-bloody diarrhea that worsens over several days. HUS, if it occurs, develops an average 7 days after the first symptoms, when the diarrhea is improving.

Where did *my* infection come from? Because there are so many possible sources, for most people we can only guess. If your infection happens to be part of the about 20 % of cases that are part of a recognized outbreak, the health department might identify the source.

How are STEC infections diagnosed? STEC infections are usually diagnosed through lab testing of stool specimens (feces). Identifying the specific strain of STEC involved is very important for public health purposes, such as finding outbreaks. Most labs can determine if a STEC is present and can identify *E. coli* O157. To determine the O group of non-O157 STEC, strains must be sent to State Public Health laboratory.

What is the best treatment for STEC infection? Non-specific supportive therapy, including hydration, is important. **Antibiotics should not be used to treat this infection.** There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of HUS. Antidiarrheal agents like Imodium may also increase that risk.

How can STEC infections be prevented? WASH YOUR HANDS thoroughly after using the bathroom or changing diapers and before preparing or eating food. WASH YOUR HANDS after contact with animals or their environments (at farms, petting zoos, fairs, even your own back yard).

1. COOK meats thoroughly. Ground beef and meat that has been needle-tenderized should be cooked to a temperature of at least 160 degrees F / 70 degrees C. It’s best to use a thermometer, as color is not a very reliable indicator of “doneness.”
2. AVOID raw milk, unpasteurized dairy products, and unpasteurized juices (like fresh apple cider).
3. AVOID swallowing water when swimming or playing in lakes, ponds, streams, swimming pools, and backyard “kiddie” pools.
4. PREVENT cross contamination in food preparation areas by thoroughly washing hands, counters, cutting boards, and utensils after they touch raw meat.

To prevent the development of hemolytic syndrome, it is important that a person suspected of having an *E. coli* enteric illness not be given antibiotics or antidiarrheal agents.

Source: CDC website/ *Escherichia coli* O157:H7 (www.cdc.gov).

IMPORTANT RECOMMENDATIONS CONCERNING STEC FOR LABORATORIES AND HEALTHCARE PROVIDERS:

All stools submitted for testing from patients with acute community-acquired diarrhea (i.e. for detection of the enteric pathogens *Salmonella*, *Shigella*, and *Campylobacter*) should be cultured for O157 STEC on selective and differential agar. These stools should be simultaneously assayed for non O-157 STEC with a test that detects the Shiga toxins or the genes encoding these toxins. All O157 STEC isolates should be forwarded as soon as possible to a state or local public health laboratory for confirmation and additional molecular characterization (i.e., PFGE analysis and virulence gene characterization). Detection of STEC or Shiga toxin should be reported promptly to the treating physician, to the public health laboratory for confirmation, isolation, and subsequent testing of the organism, and to the appropriate public health authorities for case investigation. Specimens or enrichment broths in which Shiga toxin or STEC are detected but from which O157 STEC are not recovered should be forwarded as soon as possible to a state or local public health laboratory.

Source: MMWR, October 16th,2009/58(RR12). For the complete MMWR article, go to <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5812a1.htm>

Influenza Vaccine Frequently Asked Questions (FAQ)

Q. What is the flu shot?

A. The seasonal flu vaccine provides protection against three influenza viruses including the A/H1N1 (pandemic) influenza, influenza A/H3N2, and influenza B viruses.

Q. Why are there three strains of virus in the flu shot this year, not just one like last year?

A. Traditionally the seasonal flu vaccine protects against three viruses. Flu viruses are always changing. Scientists try to match the viruses in the vaccine to those most likely to cause flu that year. Last year the H1N1 virus began circulating after the seasonal flu vaccine had begun production. Therefore a single vaccine with just H1N1 vaccine was developed to protect people from H1N1 virus.

Q. Why can't I just get only one H1N1 vaccine?

A. There is no single dose (monovalent) H1N1 vaccine available as all doses have expired. Because seasonal flu vaccine protects against the three viruses most likely to cause flu this year, (including H1N1), it is recommended that you are protected against all three viruses.

Q. Why do I need to get a flu shot every year?

A. Influenza viruses are always changing so the flu strains in the vaccine are changed annually to best protect you for that year.

Q. Who should get a flu shot?

A. All people 6 months of age and older should get a flu vaccine. Vaccination is especially important for people at higher risk of severe influenza and their close contacts, including healthcare personnel and close contact of children younger than 6 months.

Q. I got an H1N1 shot last year, should I get the seasonal vaccine this year?

A. Yes. Remember there are always three strains of flu virus protection in the seasonal flu shot, and at least one strain changes every year. Therefore, even if you did receive the seasonal flu vaccine, just the H1N1 vaccine, or both, to be fully protected from this year's seasonal flu viruses, you need a flu vaccine every year.

Q. Why are there so many different kinds of flu vaccines?

A. There are several formulations of flu vaccine; including pediatric doses, specific doses for persons age 3 years and older, a shot is now available for persons age 65 and older, as well as the nasal vaccine. Your health care provider can help you determine what type of flu vaccine is recommended for you.

Source: Vaccine Information Statements for flu vaccine, 2010.



School Reports */**/+

Disease	Apr/May/June 2010
Head Lice	11
Strep Throat	4



*All schools may not have reported

**Diagnosis is not always made by a health care professional

+ Influenza reports will now be found on the quarterly summary reports because MDCH also enters influenza reports that may not be from school-aged children

Source: Huron County Schools Weekly Communicable Disease Reports/MDSS

COMMUNICABLE DISEASE REPORTING	Jan/Feb/Mar 2010
Rabies Investigations Received and Investigated	15
Rabies Number Receiving Rabies Prophylactic Treatment	2
Communicable Disease Reports Received and Investigated	22
TB Tests Given	11
TB Tests Reactors/Converters	0/0
TB Active Cases (newly diagnosed)	0
TB Receiving Treatment	0

Source: Agency Logs



IMMUNIZATION UPDATE	April 2010
Children ages Birth to 18 years How many vaccines were administered	511 people received 1,344 vaccines
Adults 19 years and older How many vaccines were administered	92 people received 112 vaccines

Source: MCIR & Agency Logs



Protect Pre-Teens and Teens From Serious Diseases

Every year pre-teens and teens miss important events in their lives; the first school dance or a big football game; because they are too sick to attend. Children can be protected from some serious diseases by getting immunizations (shots). Getting vaccines and staying protected from serious diseases is a lifelong job.

The state of Michigan has added 3 vaccines that are now mandatory for school entrance: Meningitis, Tdap, and Varicella (or verification of chickenpox disease). Meningitis and Tdap are routinely given at ages 1 and 4-5 years, but may be given at age 11-12 if not given earlier.

Meningitis is an illness that affects the brain and spinal cord. It is spread through sneezing, coughing, kissing, and sharing food or drinks with an infected person. It is easier to spread in places where teens are in close contact, such as classrooms or college dorms. Adolescents only need one shot at age 11-12 years.

Tdap refers to: Tetanus, Diphtheria, and Pertussis (Whooping Cough). Tetanus is usually found in soil and enters the body through a cut or wound. It causes painful tightening of the muscles and is life-threatening. Diphtheria is spread by coughing or sneezing and can make you unable to breathe or move body parts. Pertussis is spread by coughing, sneezing or close contact with an infected person. It causes coughing and choking making it hard to eat or breath. If it is passed onto infants, it may be life-threatening. One vaccine (Tdap) protects against these three diseases.

Varicella (Chickenpox) causes an itchy rash all over your body, fever and tiredness. It can lead to severe skin infections, scars and pneumonia. Children and teens, who have not had chickenpox disease, need two shots of vaccine.

The adolescent vaccination schedule consists of both new vaccinations recommended specifically during adolescence and vaccinations recommended during early childhood that might have been missed. Optimally, adolescent vaccines should be delivered during the age 11-12 year health care visit. Vaccinations not received at that time should be administered at the earliest opportunity.

To make an appointment for immunizations call the Health Department at 989-269-9721, ext 133. The Health Department clinics are currently located behind the hospital in Dr. Pankratz's old office.

Source: MDCH pamphlet "Protect Pre-teens and Teens from Serious Diseases", 05/08; "New Communicable Disease Rules 2010-2011 School Reporting Year", MDCH, 01/09.

Quarterly Summary of Reportable Communicable Diseases in Huron County

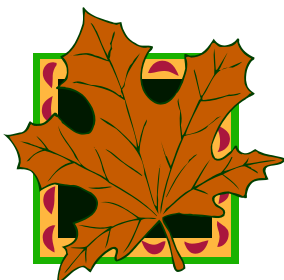
April, May, June 2009 and

April, May, June 2010

DISEASE GROUP	DISEASE	Apr/May/June 2009	Apr/May/June 2010
FOODBORNE	Campylobacter	0	3
	Giardiasis	0	0
	Salmonella	1	1
VIRAL HEPATITIS	Hepatitis A, Acute	0	0
	Hepatitis B, Chronic	0	0
	Hepatitis C, Chronic	2	3
MENINGITIS	Streptococcus	0	0
	Pneumoniae, Invasive		
OTHER	*Flu-like Disease	418	168
	Histoplasmosis	0	0
	Influenza or Novel Influenza	0	0
SEXUALLY-TRANSMITTED INFECTION	Chlamydia (Genital)	5	12
	Gonorrhoea	0	0
VACCINE- PREVENTABLE DISEASE	Varicella (Chicken Pox)	0	0

*NOTE: The discrepancy in number of reported diseases may be due to changes in reporting procedures or the addition or reporting fields.

Source:MDSS



*Have a safe and
happy Autumn!*

