March 24, 2011

Cryptosporidiosis Fact Sheet

1. **What is cryptosporidiosis?** - Cryptosporidiosis is a diarrheal disease caused by a microscopic parasite, *Cryptosporidium*, which can live in the intestine of humans and animals and is passed in and spread by the stool of an infected person or animal. Both the disease and the parasite are commonly known as "Crypto." Although infection of a healthy person with this parasite usually causes mild or no symptoms, people with severely weakened immune systems may develop fatal disease.

2. **How is cryptosporidiosis spread?**- A person is infected by swallowing microscopic parasite eggs known as oocysts which are passed out in the feces (bowel movement) of the parasite's animal or human host. The oocysts are then spread directly when contaminated objects are placed in the mouth, or indirectly via either contaminated food or water. *Cryptosporidium* may be found in soil, food, water, or surfaces that have been contaminated with the feces from infected humans or animals. Crypto is not spread by contact with blood. Most outbreaks of cryptosporidiosis are caused by exposure to contaminated water, either drinking water, swimming pools, or freshwater lakes, or streams.

3. **What are the symptoms of cryptosporidiosis? -** The most common symptom of cryptosporidiosis is profuse, watery diarrhea. Other symptoms include, nausea, vomiting, fever, abdominal cramps and weight loss

4. **How long will symptoms last?** – Symptoms generally begin 2 to 10 days (average 7 days) after becoming infected with the parasite. In persons with healthy immune systems, symptoms usually last about 1to 2 weeks. The symptoms may go in cycles in which you may seem to get better after a few days, then feel worse again before the illness ends as the parasite population increases and decreases.

5. **Who is at risk of becoming ill with cryptosporidiosis?** - Cryptosporidiosis can cause mild diarrheal disease in healthy adults, serious disease in the elderly and infants, and fatal disease in immunocompromised (HIV/AIDS), or immunosuppressed (cancer chemotherapy or organ transplant) patients. However, healthy people are generally not at risk of serious disease. Such persons can minimize their risk, if they only drink water from properly operated and maintained water systems, practice good personal hygiene, and avoid high risk sexual behaviors.

6. **How infective is cryptosporidiosis?** - Animal studies have shown that swallowing only one oocyst can cause disease.

7. **Can cryptosporidiosis be successfully treated?** - Healthy adults who become infected usually recover in 48 hours to a few weeks without treatment. Infants tend to have more severe illness, so they may need to be hospitalized and have fluid therapy. Immunocompromised or immunosuppressed patients may not be able to recover from the disease even with treatment. They may experience dramatic cholera-like symptoms

(explosive diarrhea and fluid loss) which can result in death. Antimicrobial agents used to combat the disease have had only limited success.

8. **How is cryptosporidiosis diagnosed?** – Laboratory diagnosis is generally through the microscopic identification of oocysts in fecal smears.

9. **How is cryptosporidiosis prevented?** – Department of Environmental Protection (DEP) personnel regularly inspect public water systems within the Commonwealth to ensure that all operators have the knowledge and equipment to optimize the performance of their facilities and, thereby, protect the public health. DEP conducts a special program to monitor and evaluate surface water filtration plants to ensure that oocysts are removed from source water.

10. **What does the Department of Health (DOH) recommend?**

    a. DOH recommends that all immunocompromised or immunosuppressed patients, who wish to reduce their risk of cryptosporidiosis infection do the following:

       (1) Boil all drinking water. Water should be brought to a vigorous, rolling boil for one minute. Use caution so that no one is scalded by the hot water.

       (2) Boil all water intended for washing food (fruits and vegetables), brushing teeth, making ice cubes, and diluting fruit juice.

       (3) Only use "point of use" filters or water treatment devices that remove oocysts: filters that are certified for "cyst reduction" or capable of removing particles down to one micron in size. Individuals may request a list of certified water treatment devices from the *National Sanitation Foundation International*, Phone: (800)-NSF-8010.

       (4) Avoid drinking any tap water including fountain drinks and beverages in restaurants and other public facilities. Ice cubes made from tap water should also be avoided.

       (5) Ensure that all dishes, silverware, pots and pans washed with tap water are dry before they are used for food preparation and/or consumption. Complete drying removes potentially contaminated water; and

       (6) Avoid swallowing water from lakes, pools and rivers while swimming.

    b. DOH further advises that any sexual practice that brings a person into oral contact with feces is a high risk factor for exposure to infective oocysts and should be avoided.

    c. Lastly, DOH recommends good personal hygiene. Since proper hand washing after using the toilet, handling animals, or changing diapers, and before food preparation and consumption remains the most effective means for prevention of numerous bacterial, parasitic, and viral diseases that can cause serious and possibly fatal disease.

11. **For more information about cryptosporidiosis:**
http://www.cdc.gov/parasites/crypto/index.html

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.