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Contact: Dr. Murray McQuigge  

(519) 376-9420  

Small Chance of Long-term Effects from the Walkerton Outbreak  

Residents of Walkerton who were sick with gastrointestinal illness as a result of Walkerton water contamination have asked for information on the long-term effects of the bacteria.  

The risk of suffering long-term effects from E. coli 0157:H7 is small. Only 2-10% of those who experienced E. coli symptoms might have long-term problems. Even more rare are long-term complications from campylobacter infection; campylobacter is another, usually less severe, bacterial contaminant associated with the Walkerton outbreak.  

Attached are two fact sheets outlining possible problems that can arise from E. coli 0157:H7 and campylobacter bacteria. People with health concerns should talk to their family physicians. The Grey Bruce Health Unit has provided information to the doctors of Bruce and Grey Counties regarding the potential consequences of E. coli and campylobacter.  

What might occur after E. coli 0157:H7?  

Most children and adults who develop diarrhea due to E. coli O157:H7 infection recover completely. This means that 90-98% of people who have been ill with E. coli O157:H7 will recover from their diarrheal illness and remain well.  

Some people may experience post-infectious irritable bowel syndrome, a condition that can occur after a variety of gastrointestinal infections and that resolves with time. Symptoms such as bloating, gas, stomach discomfort, loose stool or constipation may develop as the bowel returns to normal. Increased awareness of bowel function may also have a role. A few people report that foods containing lactose (e.g., milk and other dairy products) or fructose (e.g., fruits, juices), or other foods upset their stomach leading to a temporary food intolerance. These consequences are usually not severe and resolve with time.  

Long-term consequences of E. coli O157:H7 infection may occur in people who developed "hemolytic uremic syndrome" (HUS). HUS is a serious complication of E. coli infection that can lead to kidney failure. The syndrome occurs in less than 10% of individuals infected with E. coli O157:H7. Symptoms of HUS include a decrease in the amount of urine produced, swelling in the face, hands, and feet, paleness of the skin, irritability and fatigue. Young children, especially those under 5 years of age, and the elderly are most at risk for HUS. Anyone with these symptoms should see their doctor immediately.  

For people who have developed HUS, long-term consequences depend on how severe their illness was. While some people with HUS recover fully, about one third of people with HUS will continue to have abnormal kidney function, and a few will require long-term dialysis. Other
complications for people who have had HUS include high blood pressure, gallstones, seizures, blindness, paralysis and the effects of having part of the bowel removed.

A rare consequence that may occur weeks after illness is the development of "strictures" or narrowing of the bowel. This occurs mostly in people with HUS, but has been observed in at least one person without HUS. Bowel strictures can lead to a change in bowel pattern - concerned individuals should be assessed by a doctor.

Family physicians, general practitioners and pediatricians in Bruce and Grey Counties have received information on potential consequences of E. coli 0157:H7 infections as well as Campylobacter infections. See your doctor if you are concerned about your health.

If you have questions, call the Grey Bruce Health Unit.

What might occur after Campylobacter?

Although there are many different strains of Campylobacter, this fact sheet provides information on the Campylobacter species linked to the Walkerton outbreak.

Virtually all children and adults who develop diarrhea due to Campylobacter infection recover completely and without specific treatment. The diarrhea, which may be bloody, usually resolves within 10 days. Some people don't have any symptoms at all. However, some adults will have prolonged illness and diarrhea can reoccur. If this is the case, you should see your doctor.

One rare condition that has been associated with Campylobacter infection is called Guillane-Barre syndrome (GBS). This very rare syndrome has been shown to occur in about 1-2 per 2,000 cases of Campylobacter infection. Symptoms typically develop within 2-3 weeks of infection. The syndrome leads to paralysis of arm and leg that can progress to respiratory muscles over 2-3 weeks. Recovery can take weeks to months with a minority of people having permanent effects of the paralysis. Death from GBS can also occur. GBS following Campylobacter infection tends to be more severe than GBS that occurs without prior infection. Fortunately, GBS after Campylobacter infection is rare.

A second potential consequence of Campylobacter is the development of joint pain called "reactive arthritis" (also called Reiter's Syndrome). This form of arthritis has also been linked to other gastrointestinal infections. Leg and lower back joints are most commonly affected. Reactive arthritis usually occurs within 7-30 days after the onset of diarrhea. About 1% of people with Campylobacter diarrhea develop reactive arthritis, especially if they carry a specific genetic marker called HLA B27.

Campylobacter can sometimes cause illness in other body parts including the gall bladder, pancreas, liver, urinary tract, blood stream, skin, bone or joints. People who develop these illnesses often have other significant health problems. Symptoms from these body sites usually occur at the same time as the diarrhea and usually make people quite ill. Infection of these sites does not usually occur after Campylobacter symptoms have resolved. Although Campylobacter
infection might increase the risk of miscarriage slightly, the developing baby is not thought to be affected. Anyone concerned should follow up with his/her doctor.

Fortunately, almost everyone with Campylobacter diarrhea recovers fully within 2-10 days.

Family physicians, general practitioners and pediatricians in Bruce and Grey Counties have received information on potential consequences of Campylobacter infections as well as E. coli 0157:H7 infections. See your doctor if you are concerned about your health.

If you have questions, call the Grey Bruce Health Unit.