

Giardia and Cryptosporidium

Food Act 2006

Giardia and *Cryptosporidium* are highly contagious parasites that enter the gastrointestinal tract through person-to-person transmission due to poor personal hygiene, via contaminated surfaces, or through consumption of contaminated water. They can survive in food or water as cysts and can be present in the faeces (poo) of infected humans and domestic, farm or wild animals.

Giardia infection, or giardiasis, is caused by the parasite *G. duodenalis* (also known as *G. lamblia* or *G. intestinalis*).

Cryptosporidium causes the disease cryptosporidiosis. The two most common species causing disease in humans are *C. hominis* and *C. parvum*. Infections with *C. felis*, *C. meleagridis*, *C. canis* and *C. muris* have also been reported. Cryptosporidiosis is a statewide and nationally notifiable condition. Occurrences must be notified by medical practitioners and pathology services to health authorities so that steps can be taken to control its spread.

How does *Giardia* and *Cryptosporidium* cause foodborne illness?

Giardiasis and Cryptosporidiosis are generally caused by ingesting water or food that is contaminated with *Giardia* or *Cryptosporidium*. Sources can include polluted waters from rivers, streams, springs, ponds, lakes, swimming pools and spas. Fruit and vegetables that have been contaminated (while growing or afterwards) are also potential sources of infection.

Person-to-person transmission occurs via hand-to-mouth transfer of cysts from faeces or via surfaces that have been contaminated with faeces. Giardiasis is detected more frequently in children than adults and is readily transmitted in childcare centres among children who are not toilet trained.

As outbreaks have shown that cryptosporidiosis and giardiasis can be transmitted via humans or animals, identifying the source of infection and the transmission route is essential for prevention and control.

Who is at risk?

Anyone can be infected by *Giardia* or *Cryptosporidium* but certain people are at greater risk of contracting the illness, including:

- young children

- close contacts of other people who are infected
- the elderly or those with weakened immune systems
- travellers returned from developing countries
- hikers and campers who drink untreated water
- those who work with animals
- people who swim and swallow water in contaminated recreational swimming pools, spas or water parks.

What are the symptoms of *Giardia* and Cryptosporidiosis foodborne illness?

Most people infected with *Giardia* or *Cryptosporidium* may experience symptoms from one to four weeks after drinking contaminated water or eating contaminated food. Giardiasis and Cryptosporidiosis can be transmitted to others while cysts are present. Some people may have no symptoms, however, can still pass the infection to others. The infection can last for months if left untreated. Common symptoms include:

- abdominal (stomach) cramps
- diarrhoea
- bloating
- nausea
- loss of appetite
- fatigue.

Prevention

Multiplication of *Giardia* or *Cryptosporidium* in food does not occur. The most effective way of preventing foodborne illness is to prevent contamination of food. This can be achieved by:

- cooking food thoroughly and serving it immediately or keeping it hot (60°C or hotter) until serving
- reheating cooked food quickly with a microwave or stovetop (to 60°C or above)
- keeping your kitchen clean and ensuring all food contact surfaces are cleaned and sanitised before preparing food and between preparation of raw foods and ready-to-eat foods
- ensuring infected food handlers do not engage in food handling activities
- always washing your hands thoroughly with soap and running water and drying them before preparing or eating food
- avoid drinking water suspected of contamination (do not swim in natural waters during and for at least three days after heavy rain including rivers, creeks and dams)
- boiling suspected contaminated water for at least one minute, as this destroys *Giardia* and *Cryptosporidium*.

What to do if you suspect foodborne illness

If you suspect you have foodborne illness, seek medical advice. A faecal sample may be required to confirm the presence of *Giardia* or *Cryptosporidium*. Diarrhoea can cause dehydration, so it is important to drink plenty of fluids.

If you have a concern about a food product or a food business, Queensland Health provides an online form to make a food complaint. This is available at <https://phconnect-foodcomplaints.health.qld.gov.au>.

Further information

For health advice, please contact your doctor or nearest health facility, or call 13 HEALTH (13 43 25 84).

For food safety advice and further information relating to *Giardia* or *Cryptosporidium* in food, contact your local Public Health Unit at www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units.

The Food Pantry has advice related to food safety for food businesses and consumers at www.qld.gov.au/foodpantry.