FCS FOOD CONSULTING SERVICES

NEWSLETTER




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COMMON CAUSES OF FOOD POISONING - Part 1.

Millions of people fall ill every year and many die as a result of eating unsafe food. Diarrhoeal diseases alone kill an estimated 1.5 million children annually, mostly attributed to food and drinking unsafe water. Proper food preparation can prevent most food borne diseases.

Food borne Illness (food poisoning) is caused by consuming food that is contaminated with harmful (pathogenic) bacteria, viruses or parasites or the toxic products of a microorganism's growth. Generally, a foodborne illness often involves a disturbance of the gastrointestinal tract, abdominal pain, diarrhoea, fever and vomiting. However, different foodborne pathogens may cause different bodily reactions. Incubation periods (the time delay between the consumption of the contaminated food and the onset of first symptoms) can also vary, depending on the amount of contaminated food consumed, and what the food was contaminated with.

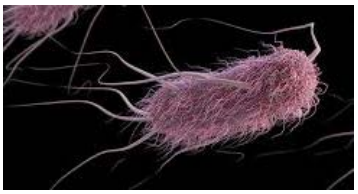
During the incubation period, microbes pass through the stomach into the intestine and attach to the intestinal wall cell lining and begin to multiply. Some types of microbes stay in the intestine, while others with produce a toxin that can be absorbed into the blood stream and invade deeper tissues. Food borne illnesses are usually caused by improper food handling, preparation, storage or a lack of hygiene in food handlers. However, a number of factors can contribute to food being contaminated; often this is a combination of events. Regular handwashing is an excellent defence against the spread of food borne illness.

Food borne illness often occurs as outbreaks. For example: In Limpopo January 2014, a diarrhoeal outbreak which hospitalized 42 people was attributed to Salmonella, and in Pietermaritzburg March 2015, 56 Children were hospitalized after consuming incorrectly prepared foods.

SAFER FOOD SAVES LIVES
WHO Statistics (2010)

1. There were an estimated 582 million cases of 22 different foodborne enteric diseases and 351 000 associated deaths.
2. The most deaths were caused by *Salmonella Typhi* and enteropathogenic *E.coli.*
3. The African region recorded the highest disease burden for enteric foodborne disease.
4. Over 40% of those suffering from enteric diseases caused by contaminated food were under the age of 5 years.

ESCHERICHIA COLI



E. coli is a typically harmless microorganism that is found naturally in healthy human and animal intestines. It plays a vital role in digestion, helps with the absorption of vitamins from foods and prevents the growth of various dangerous bacterial species. In essence, most varieties of *E. coli* are harmless.

However, there are some varieties that can make you very sick. Some kinds of *E. coli* can cause diarrhoea, while others cause urinary tract infections, respiratory illness and pneumonia, and other illnesses. Still other kinds of *E. coli* are used as markers for water contamination—so you might hear about *E. coli* being found in drinking water, which are not themselves harmful, but indicate the water is contaminated.

We test for E.coli on hands and prepared foods, because it is an indicator organism, that tells us that there has been exposure to unhygienic practices and that if E.coli is present, there are potentially other more harmful bacteria present as well.

So what can you do to prevent the growth of and contamination with *E. coli*?

1. Wash and sanitise your hands regularly for at least 30 seconds.
2. Wash raw produce thoroughly.
3. Wash and sanitise all utensils, high risk equipment and processing tables correctly following each use.
4. Avoid cross-contamination of foods during preparation and storage, including in the fridges and freezers.
5. Make sure food is kept at appropriate temperature.
6. Avoid eating raw meat and poultry.

E. COLI 0157:H7

One harmful strain is *E. coli* 0157:H7. It produces a powerful toxin that damages the lining of the small intestine which can cause severe abdominal cramps, bloody diarrhoea, vomiting and sometimes fever. In rare cases, this bacterium can cause long-term illness or even death.

Unlike most disease causing bacteria, even if only a small amount of *E. coli* enters your system you can become ill. You can become exposed to *E. coli* by consuming contaminated water or food, such as undercooked meat and raw vegetables. Healthy adults usually recover from infection with *E. coli* O157:H7 within a week, but young children and older adults have a greater risk of developing a life-threatening form of illness and kidney failure.

Signs and symptoms of *E. coli* O157:H7 infection typically begins three or four days after exposure to the bacteria, although illness may set in as soon as one day after to over a week following exposure.

There are no current medicines or vaccines for *E. coli* infection, but a number of treatments, such as rest and intake of fluids to prevent dehydration can help relieve the symptoms. In severe cases, hospitalization may be required. In the case of *E. coli* O157:H7, prevention is better than cure.

FOOD POISONING COMPLAINTS

In any instance prevention is better than cure, which is why FCS offers the Hygiene Survey (audit) as a pro-active measure to prevent such complaints from occurring.

The complainant is likely to lodge a complaint with the Consumer Goods and Services Ombud, which also involves the process of reporting the complaint to the local Environmental Health Officer, who may launch an investigation. Since food poisoning complaints are a reality, there are thus a few procedures that need to be followed in order to ensure that you are able to prove due diligence, over and above the hygiene audit.

1. Food samples of any mass-produced foods must be kept from each serving for at least 72 hours. This means that any banqueting function or buffet must be sampled and these foods kept in the fridge for the required period.

2. Contact one of our Hygiene Consultants as soon as you are made aware of the complaint, so that we may make arrangements to collect the samples in question.

3. Our laboratory will test these foods for all the common food pathogens that are most likely to have caused the complaint. These results will serve as evidence either supporting (or much more often) refuting the complaint.

4. It is best to make these results available to the client; this often resolves the dispute. These results, in conjunction with your daily, weekly and monthly records-keeping, and well as the hygiene audit results, are excellent tools for proving due diligence in such cases.

5. You should politely insist that the complainant see a medical doctor to obtain a faeces or vomitus sample that will need to be tested for the presence of microbes that are the same as those we found in the food sample we tested. Only this is definitive proof of food-poisoning.

These procedures do of course assume that there is a good food safety management system in place.

Even if the food samples are found to have been contaminated and have caused the food poisoning, the above is sufficient to prove a lack of negligence (that is the food poisoning was a true freak event that could not have been predicted or prevented).

However, should the case be that there is no active management system in place (usually gauged as a minimum 75% Composite Walkthrough visual score) and the samples tested produce a concerning result, you may be liable for damages and could face litigation