**Introduction**

Food poisoning is an illness as a result of eating or drinking food that has been contaminated. It is usually caused by germs (bacteria, such as E.coli and salmonella) that are present on food or within drinks, however, food poisoning can also occur due to chemicals (such as lead or mercury), viruses (such as norovirus) or parasites.

**How the infection is spread**

Food can be contaminated during production, processing, storage and cooking. There are a number of factors that result in food poisoning:

- Not cooking food at the right temperature and/or for the right length of time
- Not chilling food at the correct temperature
- The food being handled by someone who has not washed their hands properly
- People eating food after it has passed its ‘use by’ date, and cross-contamination.

Water can be contaminated with bacteria (or other microbes) usually due to human or animal faeces entering the water supply.

It is usually bacteria that cause food poisoning. Campylobacter is the most common type of bacteria causing food poisoning, however other bacteria include: E-colii 0157, salmonella, and listeria.

**Symptoms**

The most common symptoms of food poisoning are:

- Nausea
- Vomiting
- Diarrhoea
- Stomach pains

Most cases develop symptoms between 1 and 3 days after eating the contaminated food.

Other symptoms include:
- Abdominal cramps
- Loss of appetite
- A high temperature (fever)
- Muscle pains
- Chills

**Diagnosis**

Diagnosis for food poisoning is made from the symptoms.

A laboratory diagnosis for food poisoning is usually only needed if:

- Your symptoms are severe
- Your symptoms persist despite treatment
- You are showing signs of dehydration and/or
- There has been an outbreak of similar cases linked to a possible source of contamination.

Further testing is only needed if the symptoms indicate that infection has spread from digestive system to other parts of the body.

You may be asked to have investigations including blood tests (for infection) and examination of stool sample.

**Advice from NHS choices**

Most cases of food poisoning do not require medical attention. But contact your GP or telephone NHS Direct on 0845 46 47 if you have any of the following:

- Vomiting that lasts for more than two days
- You cannot keep liquids down for more than a day
- Diarrhoea that lasts for more than three days
- Blood in your vomit
- Blood in your stools
- Seizures (fits)
- Changes in mental state, such as confusion
- Double vision
- Slurred speech
- Signs that you may be dehydrated, such as a dry mouth, sunken eyes, and being unable to pass urine

Always contact your GP if you suspect you have developed food poisoning during pregnancy, or in the elderly and children.
Treatment

Generally, there is no specific treatment for food poisoning and you don't usually need to visit a doctor. However, it is important to: get plenty of rest, stay at home and drink plenty of fluids to prevent dehydration which is especially important in the very young and elderly.

Symptoms of dehydration

- Dry mouth
- Unable to pass urine
- Dark, concentrated urine
- Extreme thirst
- Tiredness
- Dizziness and headaches

To deal with the symptoms of dehydration you can take rehydration products or drinks. These solutions will replace the sugars, salts and minerals that you have lost from your body and help restore the natural balance of body fluids. These rehydration solutions can be purchased from chemists, but please ask the advice of your pharmacist or GP.

Here are some further ways to cope with your symptoms and speeding up your recovery time:

- Eating smaller, more frequent meals is easier than trying to eat three large meals.
- Stick to easily digested foods, such as toast, crackers, bananas, apple sauce and rice until you begin to feel better.
- Avoid alcohol, cigarettes, caffeine and spicy and fatty foods because these will make you feel worse.
- Take plenty of rest. Food poisoning can have a worse effect on your body than most people realise.

If you are showing the signs and symptoms of dehydration you may need to go into the hospital to be given fluid though your vein (saline drip). If laboratory testing comes back with results indicating the food poisoning source to be bacteria, you may be asked to take a blood sample to determine if you have an infection. If so then antibiotics may be prescribed (oral [tablets] or intravenous [injections] antibiotics).

Protection and prevention

Prevent food poisoning by:

- Cleaning
- Cooking
- Chilling
- Cross-contamination
Cleaning

- Maintain good basic hand hygiene, for example wash hands frequently with soap and water, especially before and after handling food.
- Thoroughly clean all surfaces and objects that come into contact with food.

Cooking

- Cook food (especially meat) thoroughly, to ensure killing of bacteria (e.g. Listeria and salmonella)

Chilling

- Ensure correct storage of food in terms of temperature to prevent bacteria multiplying and growing

Cross-contamination

To prevent cross-contamination:

- Always wash your hands after handling raw food.
- Keep raw and ready-to-eat foods separate.
- Store raw meat in sealable containers at the bottom of your fridge, so that it cannot drip on to other foods.
- Use a different chopping board for raw food and ready-to-eat food, or wash it well in between preparing different foods.
- Clean knives, can openers and other utensils thoroughly after they have been used with raw food.

Useful links:

For further information on food poisoning please visit the links below:

- NHS CHOICES/ NHS direct
- FOOD STANDARDS AGENCY
- PATIENT UK
Acknowledgements:

1. NHS choices website: http://www.nhs.uk/Conditions/Food-poisoning/Pages/Introduction.aspx

2. Patient UK website http://www.patient.co.uk/showdoc/27001627/