Unit 207: Food safety

# Handout 1: Food poisoning bacteria

Food that is not stored, handled and prepared in the correct way can cause food poisoning. Typical symptoms of illness caused by food poisoning are diarrhoea, vomiting, nausea and stomach pains. Not only is food poisoning an unpleasant experienced it can also be life threatening particularly to vulnerable people. The onset of symptoms may appear after a couple of hours or alternatively after an interval of several days.

Bacterial reproduction is usually referred to as multiplication. Bacteria multiply by dividing in two – a process known as binary fission. Each bacteria needs 10 to 20 minutes to multiply in the right conditions, it is possible for just one bacterium to lead to the production of millions of bacteria within a few hours.

**The chart below provides information about the sources of food poisoning bacteria describing both the symptoms and onset times**

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| **Organism** | **Source** | **Onset period**  | **Symptoms** |
| Bacillus Cereus | Widespread in environment, soil and cereals | Usually 1 - 5 hours | Abdominal pain, vomitingDiarrhoea |
| Campylobacter | Wild animal and mammals | 18 - 36 hours | Abdominal painBloody diarrhoea |
| Clostridium Botulinum | Soil, vegetables and fish | 12 - 36 hours | Difficulty in swallowing and breathingParalysisCan be fatal |
| Clostridium Perfringens | Soil and intestines of mammals | 12 - 18 hours | Abdominal painDiarrhoea |
| E-Coli | Intestines of humans and animalsUnpasteurised milk and unpasteurised milk products | 12 - 24 hours | Abdominal painDiarrhoea |
| Listeria | Widespread in environment, soil and river waterUnpasteurised milk, unpasteurised milk products, processing plants, contaminated meats | Weeks or months | Contraction of meningitis and septicaemiaCan be fatal |
| Salmonella | Animal and humanIntestinesMilk and eggs | 12 - 36 hours | Abdominal painVomitingDiarrhoea |
| Staphylococcus Aureus | Human noseThroat and wounds | 1 - 6 hours | Abdominal painVomitingReduced temperature |