

## 3.2

# Where do bacteria come from?

Food can become contaminated with bacteria from:

- raw foods
- work surfaces and equipment
- food handlers
- **pests**
- waste food and rubbish.

### Raw foods

Contamination from raw foods comes from:

- Raw meat and poultry – the juices from these are sources of bacteria
- Eggs and shellfish – these foods carry bacteria on the inside and outside of their shells
- Soil on foods, e.g. uncooked rice and root vegetables – can be contaminated by bacteria from the soil

### Work surfaces and equipment

Contamination from work surfaces and equipment comes from:

- Dirty tea towels and dish cloths – the warmth, moisture and traces of food can spread bacteria onto work surfaces and dishes
- Dirty equipment – bacteria from dirty equipment can contaminate clean food
- Using the same chopping board for raw and cooked food – bacteria from raw food can spread onto clean cooked food

Colour-coding chopping boards and other equipment help to prevent cross contamination. It keeps different foods apart, so the bacteria can't spread.

### Food handlers

Contamination from food handlers comes from:

- Unclean hands, not using tongs or gloves – bacteria from your hands spread onto food, surfaces and equipment



#### ▲ Colour-coding can help to reduce bacterial contamination

- Double-dipping when tasting (tasting mixture from the same spoon twice without cleaning the spoon) – this passes the bacteria from your mouth into the food
- Licking fingers or touching the mouth/Picking up cups, mugs and **cutlery** without using the handles – this passes bacteria from you onto food, dishes and equipment

### Pests

Pests include flies, ants, pantry moths and larvae, mice and rats. All of these carry bacteria.

Contamination from pests comes from:

- Leaving food uncovered – pests (e.g. flies) can spread bacteria from their bodies, urine and droppings into the food
- Letting bins overflow – bacteria can multiply in waste food and rubbish
- Allowing crumbs and food waste to remain on the floor or work surfaces – these can provide food for pests



- Not cleaning the kitchen after every practical lesson – bacteria multiply in leftover food and crumbs of food will attract pests



▲ Pests can contaminate food

### Waste foods and rubbish

Contamination from waste foods and rubbish comes from:

- Using bins without lids – bins with no lids attract pests
- Using thin bin bags which split easily – allows food and waste to spill, which attracts pests and contaminates other areas
- Letting rubbish overflow or stay in the bin for more than one day – attracts pests
- Allowing the bin to become dirty by not washing it once a week – provides a moist area with a food source for pests



▲ Make sure the kitchen bin has a lid

### Food poisoning

Food poisoning often causes symptoms such as: **nausea**, **vomiting**, **diarrhoea** and stomach pain. Usually, food poisoning lasts a short time and the symptoms are mild, but for some people these symptoms can become very serious.

#### Activities

Write a timeplan for the raw food practical in the 'In practice' box below. Include three columns:

- 1 time (in five- or ten-minute blocks)
- 2 order of work
- 3 health, safety and hygiene points.

#### Key words

**pests** – insects or animals which may contaminate food

**cutlery** – knives, forks and spoons

**nausea** – feeling sick

**vomiting** – being sick

**diarrhoea** – passing looser or more frequent stools than is normal for you

#### Knowledge check

- 1 What are the five main sources of bacteria which can contaminate food?
- 2 State three ways you could prevent bacteria from raw food contaminating ready-to-eat food.
- 3 Why are colour-coded chopping boards useful when preparing food?
- 4 What does 'double-dipping' mean, and how may this be prevented when tasting food?
- 5 Name three symptoms of food poisoning.

#### Extension

- 6 Find out the names of different food-poisoning bacteria. Write them out several times until you learn how to spell them.

#### Find out more

Find out more about bacteria and how they reproduce at this website:

[www.bbc.com/bitesize/clips/zqt87ty](http://www.bbc.com/bitesize/clips/zqt87ty)

#### In practice

In your next practical lesson, make a dish using some raw foods which could potentially contaminate other food: for example, a chicken curry or vegetable soup.