HEALTH BASICS

Food poisoning prevention

Food poisoning prevention means handling, cooking, and storing food in ways that reduce harmful germs and toxins.

WHAT IT IS
Practical steps that reduce food contamination and germ growth

WHERE IT COMES UP
Food preparation, storage, shopping, recalls, and eating away

WHY IT MATTERS
Lowers the chance of foodborne infection or toxin exposure

WHAT IT IS NOT
Not a disease or diagnosis

WHO TO ASK
Local public health or food-safety service

HOW IT IS CHECKED
Food thermometer and refrigerator thermometer readings

Overview

Food poisoning prevention is a set of food-safety practices. It is not a disease or diagnosis.

"Food poisoning" is a general term for illness caused by contaminated food or drink. Causes include bacteria, viruses, parasites, and toxins made by some germs. Contamination can happen during farming, processing, transport, cooking, or storage.

You cannot remove every risk. However, clean hands, separate preparation areas, correct cooking temperatures, and prompt refrigeration can reduce many common risks.

Extra care is important for people more likely to become seriously ill from contaminated food. This includes pregnant people, adults aged 65 or older, children younger than 5, and people with weakened immune systems.

How it works

Food-safety advice is often grouped into four actions: clean, separate, cook, and chill.

Clean: Wash your hands with soap and running water for at least 20 seconds before preparing

food and after handling raw meat, poultry, seafood, or eggs. Clean utensils, cutting boards, and work surfaces after use.

Rinse fresh fruit and vegetables under running water. Do not use soap, detergent, or household bleach on food. Do not wash raw poultry or meat, because splashing water can spread germs around the sink and nearby surfaces.

Separate: Keep raw meat, poultry, seafood, and eggs away from ready-to-eat foods. Use separate plates and utensils, or wash them thoroughly between uses. At the shop and in the refrigerator, place raw animal products in bags or containers that will catch leaks.

Cook: A food thermometer is the reliable way to check whether food has reached a safe internal temperature. Colour, texture, smell, and clear juices are not dependable checks.

Common safe minimum temperatures include:

Insert the thermometer into the thickest part without touching bone. Check more than one place in large or uneven foods.

Chill: Keep the refrigerator at 40°F or 4°C or below. Refrigerate perishable food within two hours, or within one hour when the surrounding temperature is above 90°F or 32°C.

Divide large amounts of leftovers into shallow containers so they cool more quickly. Thaw food in the refrigerator, in cold water that is changed regularly, or in the microwave. Do not thaw it on the counter. Food thawed in cold water or the microwave should be cooked promptly.

Freezing slows or stops the growth of many germs, but it does not reliably kill all of them.

- Whole cuts of beef, pork, veal, and lamb: 145°F or 63°C, followed by a three-minute rest
- Ground beef, pork, veal, and lamb: 160°F or 71°C
- Poultry, including ground poultry: 165°F or 74°C
- Fish: 145°F or 63°C
- Leftovers and casseroles: 165°F or 74°C

Why it matters for your health

Good food handling lowers the chance that harmful germs will reach food or multiply to unsafe levels. It also reduces cross-contamination, which means germs moving from one food, hand, utensil, or surface to another.

Some foodborne infections are more likely to cause serious complications in higher-risk groups. Safer choices may include pasteurized milk and juice, fully cooked eggs and animal products, and cooked rather than raw sprouts. People at higher risk are also advised to avoid

unheated deli meats and hot dogs unless they are reheated until steaming hot.

Food recalls are another part of prevention. A recall does not mean everyone who ate the food will become ill. It means the product may present a safety risk and should be handled according to the recall notice.

What can go wrong

Undercooked meat, poultry, eggs, or seafood can carry germs such as Salmonella , Campylobacter , or Shiga toxin-producing E. coli . Raw food can also contaminate salads, fruit, bread, or other foods that will not be cooked.

Food left warm for too long can allow bacteria to multiply. Clostridium perfringens and Bacillus cereus are linked with foods cooked in large batches or cooled too slowly. Some bacteria can produce toxins that reheating may not remove.

Listeria monocytogenes can grow slowly at refrigerator temperatures. Keeping the refrigerator cold, cleaning spills, and following storage instructions can reduce this risk.

Norovirus can spread when an infected person prepares food. If you have vomiting or diarrhoea, do not prepare food for other people while ill and for at least 48 hours after symptoms stop.

Incorrect home canning can allow the toxin that causes botulism to develop. Use a tested canning method from a reliable food-safety authority. Do not taste food from a container that is leaking, bulging, spurting, badly damaged, or otherwise suspicious.

Food may contain dangerous germs even when it looks and smells normal. Tasting questionable food is not a safe way to test it.

What you can do

Use a refrigerator thermometer and keep the temperature at 40°F or 4°C or below. A separate food thermometer lets you check cooked food rather than relying on appearance.

When preparing food:

Check official recall notices if you hear that a food may be contaminated. Compare the product name, package size, date, and lot or batch code. Follow instructions to discard or return the food, and clean surfaces it may have touched.

There is no routine medical test to confirm that food in your home is safe. Home test kits are not a substitute for temperature control, recall information, or public health testing. If several

people become ill after eating the same food, keep the packaging and purchase details and contact your local public health service.

Most prevention questions are not urgent. You can ask a local public health department, food-safety service, or clinician if you need advice for pregnancy, a weakened immune system, or another higher-risk situation.

If illness occurs, seek medical advice for bloody diarrhoea, diarrhoea lasting more than three days, fever above 102°F or 39°C, repeated vomiting that prevents drinking, or signs of dehydration such as very little urination, a dry mouth, or dizziness when standing.

Call emergency services for confusion, collapse, severe breathing difficulty, or possible botulism signs such as double vision, drooping eyelids, slurred speech, trouble swallowing, or muscle weakness after eating preserved or canned food.

- Wash your hands and clean work surfaces
- Keep raw animal products separate from ready-to-eat foods
- Cook food to its safe internal temperature
- Refrigerate perishable food promptly
- Reheat leftovers to 165°F or 74°C
- Follow package storage and cooking instructions

Common questions

Can I tell whether food is safe by smelling it?

No. Spoilage may change a food's smell or appearance, but many harmful germs do not. When food has been stored incorrectly or is part of a recall, do not taste it to check.

Should I wash raw chicken?

No. Washing raw chicken can splash germs onto your hands, sink, counters, and nearby food. Proper cooking destroys harmful germs more effectively.

Is food safe if I reheat it?

Reheating leftovers to 165°F or 74°C kills many germs. It may not remove every toxin produced while food was kept at an unsafe temperature. When in doubt about storage time or temperature, discard the food.

Are raw or lightly cooked foods always unsafe?

Not every serving is contaminated, but raw animal products, raw sprouts, and unpasteurized

foods carry more risk. Pregnant people and others at higher risk of serious illness should choose safer alternatives.

Does freezing make contaminated food safe?

No. Freezing prevents many germs from multiplying, but some survive and can begin growing again after thawing. Cook and handle thawed food safely.

Sources

- Centers for Disease Control and Prevention: About Four Steps to Food Safety
- Centers for Disease Control and Prevention: Signs and Symptoms of Food Poisoning
- Centers for Disease Control and Prevention: Safer Food Choices
- US Food and Drug Administration: Safe Food Handling
- US Department of Agriculture Food Safety and Inspection Service: Safe Minimum Internal Temperature Chart
- National Center for Home Food Preservation: Ensuring Safe Canned Foods