Protect the quality and safety of your food

The Importance of Food Safety

Fresh and clean foods are important to good nutrition. Preventing food from becoming mouldy or otherwise spoiled reduces waste. Taking steps to see that food does not become contaminated with food poisoning bacteria also reduces losses and illness. Spoilage organisms such as bacteria and moulds in food can both reduce the food's nutrient value and cause disease.

Disease causing (or pathogenic) bacteria can contaminate food and water and cause food poisoning. This can take the form of diseases such as typhoid, cholera and hepatitis. In some circumstances, mould growing on food can form poisons known as mycotoxins, which can cause illness and sometimes even death. Internal parasites can be transmitted through foods that have been contaminated with parasite eggs or cysts, and in some cases the infective stage of a parasite can be transmitted in foods such as meat and fish.

Bacteria, moulds and parasites can contaminate food in different ways, including the following:

- from the soil or water where it is grown;

- from handling at harvest, during processing or marketing, or during storage; and

- by human or animal sewage from hands, flies, rats or other pests, or by contaminated air or water.

In many countries serious diseases such as cholera and typhoid are rare, though food poisoning of other types remains a common problem. Losses from food spoilage and contamination are also very common.

The symptoms of food poisoning commonly include nausea, vomiting, abdominal pain, diarrhoea and fever, though not all of these may occur in every case. Symptoms vary depending upon the cause. They usually start between one and 36 hours after eating the contaminated food, and may last for a number of days. Food poisoning may be fatal, depending upon the cause and the overall fitness of the sick person.

Some bacteria, for example most salmonella bacteria, can increase in numbers in food very rapidly under some circumstances. Food that is contaminated with large numbers of bacteria can be a source of contamination of other foods. This cross contamination of foods can happen when food contaminated by hands, flies or other insects or pests touches a clean food or when clean foods touch a contaminated surface or implement.

Cross contamination of foods is a common cause of outbreaks of food poisoning. It is important to remember that bacteria in foods can increase in number very rapidly in certain circumstances. Under conditions that favour their rapid growth, such as the right temperature, one bacterium can increase to 100

million bacteria within 9 hours. Even with such large numbers, they cannot be seen without the use of a microscope.

The risk of food poisoning and of losses through spoilage can be greatly reduced if some basic rules are followed. These rules are designed to kill bacteria and moulds where possible, stop them increasing in numbers, and stop them being transferred or spread. They should be followed at all times and at all stages in food production, preparation, storage, marketing and serving. These rules will prevent food related illnesses and reduce the wastage of food.

Proper Storage and Handling of Foods

To keep food safe to eat it is important to follow these rules:

- Keep cupboards and storage areas clean. cool and dry.

- Do not store food in containers that are used for other purposes. It is important not to store food in containers that have previously been used for chemicals.

- Keep food covered while it is being stored. and keep it away from chemicals such as insecticides and household cleaners.

- Make sure that areas where food is prepared. and all pots, pans and implements such as knives, forks and spoons are clean before food is prepared. These should be cleaned again afterwards.

- If fruits and vegetables appear dirty. wash them in clean water before preparation for cooking. Fruits and vegetables that are to be eaten without being cooked should always be washed first in clean water.

- When washing pots, pans and implements such as knives, forks and spoons. use hot water with soap or detergent, then rinse in clean water. Change washing and rinsing water often.

- Try and make sure the water used for cooking and washing is fresh and from a safe source.

It is important to remember that people. insects and other items can make clean things dirty again. even though they still look clean. Therefore it is important for everyone to:

- Wash their hands with soap and clean water before preparing or eating food.

- Avoid coughing or sneezing near food. or touching their nose, mouth. hair or anything likely to be dirty while preparing food.

• Avoid preparing food if they are sick or if they have wounds or sores on their hands. Anyone who is sick or has wounds and cannot avoid preparing food, should take extra care to work cleanly.

• Keep insects, pests. animals. birds. dust and fumes away from food.

Even in clean surroundings food will go bad over time. Food always has some bacteria on it. and these will increase in number over time and cause spoilage or even illness. The following is therefore important:

• For food with labels. carefully follow any storage instructions.

• Do not keep food too long. Throw it away if it looks or smells bad or spoiled.

• Do not leave scraps of food around so that bacteria can spread to the next lot of food to be prepared.

Raw meat, poultry and fish require special care as they always have bacteria on their surface. Proper cooking will kill these bacteria and make the food safe. But it is important not to let raw meat, poultry or fish contaminate food that is already cooked or that is to be eaten raw. To protect against this, the following is important:

• People handling raw food should properly wash their hands and everything else they use, including contact surfaces, before handling cooked food or food that is to be eaten raw.

• Raw food should be kept separate from cooked food or food that is to be eaten raw.

Keeping Food at the Right Temperature

Keeping food cold slows bacterial growth. All perishable food. especially meat, poultry and fish, should be stored in a cold place while awaiting cooking, or being eaten.

Cooking food properly kills all or most bacteria, and keeping foods sufficiently hot after cooking prevents most dangerous bacteria from growing. Meat and dishes containing meat should always be thoroughly cooked. If meat or poultry is still red inside. or if the juices still look bloody, it is undercooked and could still contain harmful germs. Eggs should also be well cooked. Foods that are cooked in water should be cooked in boiling water. and kept in that water long enough for it all to reach a temperature high enough to kill bacteria.

As far as possible, food should be eaten as soon as it is cooked. If food is uncooked or cold, it should be eaten as soon as it is taken out of its cold storage place. If it is not to be eaten straight away, food that is cooked or heated should either be kept hot until eaten or cooled right down and then stored in a cold place.

Food should not be kept just warm or at room temperature, as these temperatures are ideal for the rapid growth of bacteria.

The best place to store most fresh food is in a refrigerator or freezer. If this is not possible. it should be stored in the coolest possible place. But remember. food will spoil more quickly in a cool place than in a cold place.

Because bacteria need moisture to increase in numbers, dried food such as pulses. nuts. bread and uncooked grains are less of a risk and can be kept at room temperature.

Food that is sealed in cans can be kept at room temperature so long as the cans are not opened. Once cans are opened. the food should be eaten straight away or put in a clean covered container and stored in a cold place. Food should not be left in the can once the can is opened.

Caring for Children

Children that are healthy and well nourished are usually not affected by most bacteria they come into contact with in the course of their lives. However. eating contaminated. unsafe food can quickly cause serious illness. If children are undernourished or weakened by other causes, their resistance is lessened and there is an increased risk that they will become sick from disease-causing bacteria. Eating unsafe food can quickly cause serious illness. For this reason extra precaution should be taken with the food of young, undernourished or sick children.

Young children like to put things in their mouth. They should be discouraged from doing this with harmful things. taught how to handle food safely. and encouraged to adopt good personal hygiene habits. These lessons need frequent reinforcement.

It is essential that clean water is used for the preparation of breast milk substitutes and weaning food. Boiling the water used for these purposes and ensuring all utensils are clean reduces the risk of sickness.

Cooking for Others

Extra care needs to be taken when cooking food in large quantities to give or sell to others. Large outbreaks of food poisoning can occur if the basic rules above are broken.

Though it is harder to keep to the rules for food being sold on the street or from temporary stalls, they are just as important. All the rules should be obeyed, particularly the following:

• Keep all pots, pans, containers and implements such as knives and spoons clean.

• Keep all food preparation areas clean, and avoid contact, even indirect contact, between cooked food and raw food.

• If cooked food is not to be eaten straight away or kept very hot, cool it quickly and store it at a cold temperature.