

FOOD BORNE ILLNESSES

Connection among food, man and diseases

Harmful foods don't always appear adulterated

This means that the presence of pathogenic microbes and/or their toxic substances might not come out until the first symptoms are felt (also after a certain period since the food has been consumed):



Symptoms

- ✓ VOMITING
- ✓ NAUSEA SINGLE CASES OR ASSOCIATED
- ✓ DIARRHOEA
- ✓ FEVER NEUROLOGICAL DISORDERS (lose one's bearing, double vision, facial paralysis)



The damage to human health may show itself in 3 different ways:

FOOD BORNE INTOXICATION

When the illness is caused by the ingestion of foods with toxins and the microbes that produce them.

FOOD INFECTION

When the illness is caused by ingestion of only pathogenic microbes in food

FOOD POISONING

When the illness is due to the ingestion of huge amounts of preformed toxins or toxic substances in food.

The main food borne disease of microbial origin are:

- ✓ Food poisoning caused by Staphylococcus, by Clostridium Botulinum called BOTULISM.
- ✓ Food intoxication caused by Clostridium Perfringens and Bacillus Cereus.
- ✓ Food infection caused by Salmonella.



IF YOU HAVE SYMPTOMS:

You should contact your medical practitioner immediately if you have gastrointestinal or neurological symptoms after having eaten suspected food.

ABOUT VEGETABLES AND FRUIT

- ✓ Vegetables and fruit should be rinsed before eating.
- ✓ **Before eating should be better wash hands.**



BE CAREFUL DOING SHOPPING

At shopping stores: the cleanliness, tidiness of food shops and hygiene of staff are basic elements which guarantee good food conservation. A dirty shop with scruffy staff and poor personal hygiene should be avoided.

HOW THE PRODUCT APPEARS:

Be careful with visible adulterations:

- ✓ The adulterated food may change colour, smell, taste, look.
- ✓ It may change consistency or it shows signs of mould.
- ✓ The packaging may be broken, that can may be rusty, dented or swollen.
- ✓ In these cases it is suggested not to eat the food.



Labelling:

Labels should clearly indicate the ingredients and the expiry date.

If they are marked with:

"Best used by date..." it means that if the food has been properly stored it can still be consumed a few days after the date reported.

"To consume before..." or "Expiry date..." it means that after the indicated date the product can not to be consumed or sold.

DO NOT OVER BUY AND ANTICIPATE WHAT YOU WILL USE IN A CERTAIN PERIOD. BUY LITTLE AND OFTEN.

FOOD MANGEMENT

After the purchase:

The products bought can

- ✓ be consumed immediately;
- ✓ be consumed after conservation and or further handling.

The food may be divides into 2 groups:

- ✓ **STABLE FOODS**, that do not adulterate easily and can be well conserved for a long period and at room temperature.
- ✓ **PERISHABLE FOODS**, that are easily adulterated, they must be consumed within a given time and they must conserved in a refrigerator if possible.

CONSERVATION:

Refrigeration:

Refrigerator, slows the growth of microbes but does not kill them.

Salting: a few microorganisms can not stand high concentrations of salt, salt stops vital activities of microbes reducing water content.

Use of sugar: at low concentration, sugar can stimulate the growth of microbes than can, in their turn, acidify the environment, whereas at high concentration it stops the microbial growth in the same way as salt.

Smoked: the smoke coming from wood contains antimicrobial and flavouring substances. The procedure is often associated with desiccation and salting.

Use of vinegar: vinegar acidifies also the product submerged, as to avoid the microbial proliferation.

Use of oil: oil itself has no action on microbes. It can only isolate the food from air, preventing contamination and the contact with oxygen.

Therefore it is important to carry out heat and or acidifying treatments before putting the food on oil

