

MICRO-ORGANISMS AND FOOD

1- The foods that we eat are rarely if ever sterile.

2- They carry microbial associations whose composition depends upon which organisms gain access and how they grow, survive and interact in the food over time.

3- The micro-organisms present will originate from the natural micro-flora of the raw material .



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4- And those organisms introduced in the course of harvesting, processing, storage and distribution .

5-The numerical balance between the various types will be determined by the properties of the food, its storage environment, properties of the organisms themselves and the effects of processing.



Micro-organisms manifest their presence in one of several ways.

(i) They can cause spoilage.



(iii) They can transform a food's properties in a beneficial way – food fermentation.



(ii) They can cause foodborne illness.



History of Microorganisms in Food

1- The Chinese , Greeks and Egyptians were used salted fish in their diet as early as 3000 BC.



2- Fermented sausages were prepared and consumed by the ancient Babylonians and the people of ancient China as far back as 1500 BC.



History of Microorganisms in Food

3- The Romans excelled in the preservation of meats other than beef by around 1000 BC and are known to have used snow.



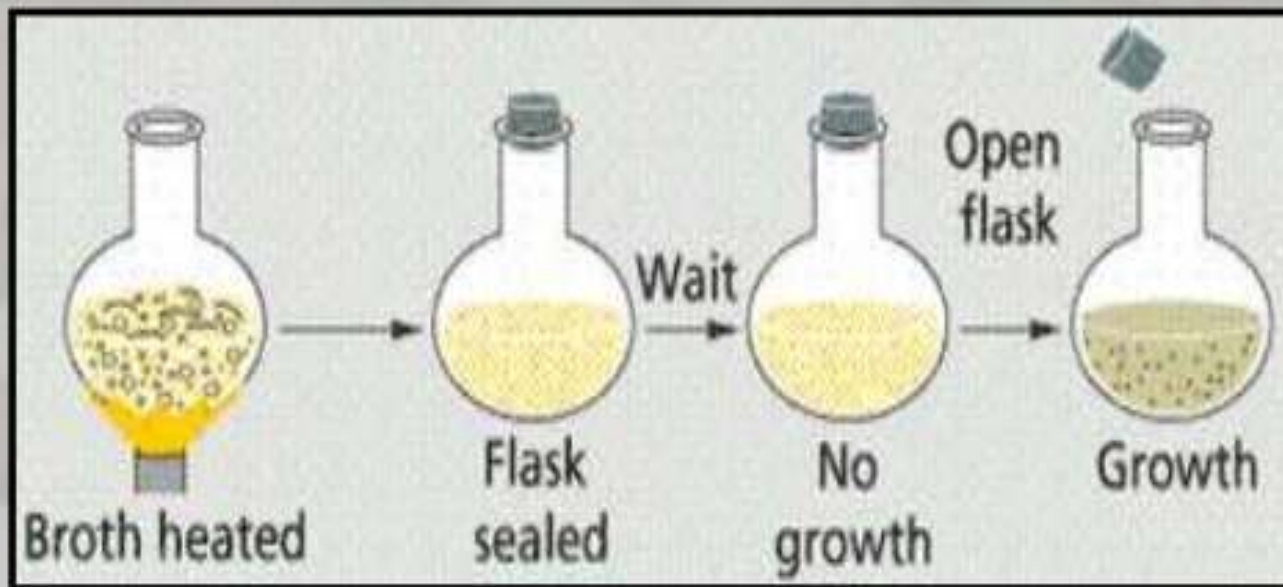
4- in 1658 Kircher was the first person suggest the role of microorganisms in spoiling foods examined decaying bodies, meat, milk, and other substances and saw what he referred to as "worms" invisible to the naked eye.



History of Microorganisms in Food

5- In 1765, Spallanzani showed that beef broth that had been boiled for an hour and sealed remained sterile and did not spoil.

6- The event that led to the discovery of canning had its beginnings in 1795, when the French government offered a prize of 12,000 francs for the discovery of a practical method of food preservation.



History of Microorganisms in Food

7- In 1809, a Parisian confectioner, succeeded in preserving meats in glass bottles that had been kept in boiling water for varying periods of time.



8- Leeuwenhoek in the Netherlands had examined bacteria through a microscope and described them in 1683.

History of Microorganisms in Food

9- The first person to appreciate and understand the presence and role of microorganisms in food was Pasteur. In 1837, he showed that the souring of milk was caused by microorganisms.

10- In about 1860 he used heat for the first time to destroy undesirable organisms in wine and beer (pasteurization).

