

→ Sterilisation procedure involves the use of heat, radiation or chemicals or physical removal of cells.

→ The common processes used for sterilisation are flaming and autoclaving (steam under pressure) and Tyndallisation (steam not under pressure) and filtration.

Methods of sterilization:-

(A) Dry heat (Flaming, baking) -

Dry heat tends to kill microbes by oxidation of cellular component. This requires more energy than Protein Synthesis hydrolysis so higher Temp. are required for efficient sterilization by dry heat.

For example - Sterilization can normally be achieved in 15 minutes by autoclaving at 121 deg. C. whereas dry heating would generally need a Temp. of 160 deg. C to sterilize in a similar amount of time. Dry heating has one crucial difference from autoclaving. There is no need of water. so protein hydrolysis can't take place.