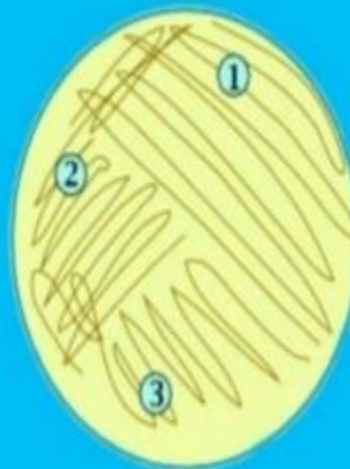


# Types of Streaking



## **Laboratory cultivation of microorganisms**

For the cultivation of bacteria, clinical specimens are inoculated on to various culture media, inoculation is carried out with loop.

The loop is sterilized by holding it vertically in the flame of burner so that the whole length of wire becomes red hot. It is allowed to cool down before it touches any material suspected to be having a bacteria to avoid the heat killing of microorganisms.



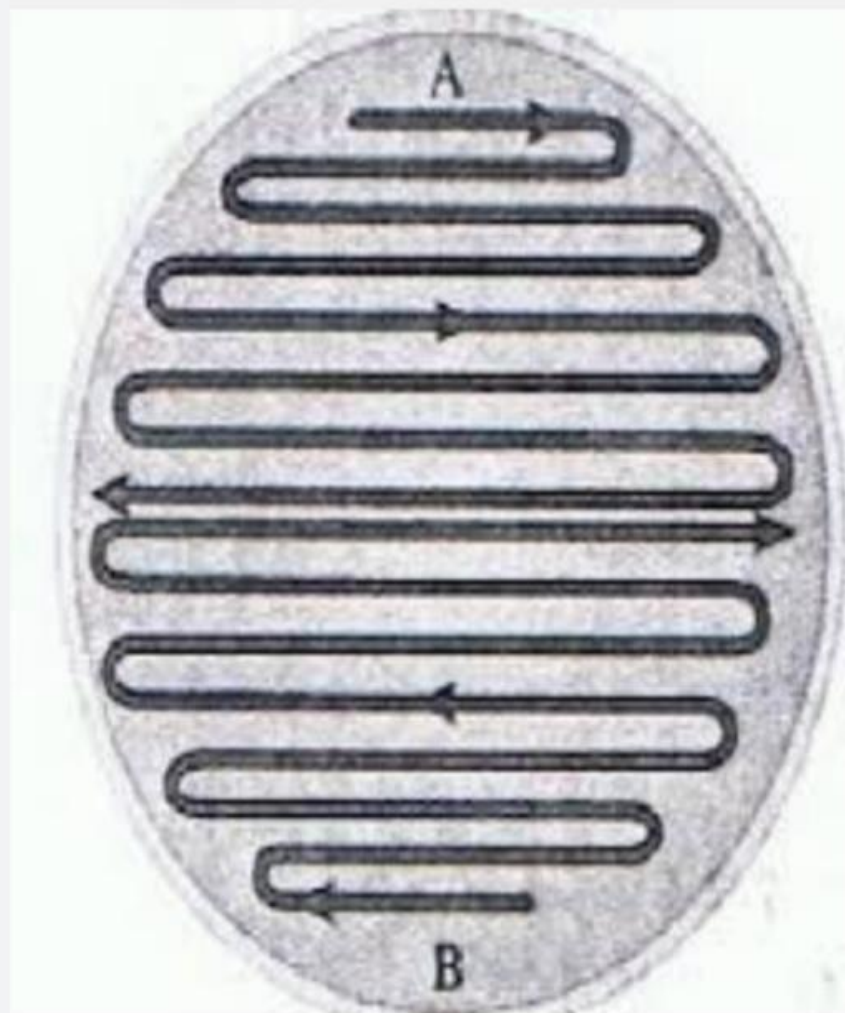
# Cultivation methods:

## 1- streak plate:

The standard method of obtaining a pure culture is the creation of a streak plate.

The following **two methods** are more common in the laboratories.

**A- Continuous streaking method :** Place a loopful of the inoculum near the periphery of the petri dish and starting at the edge of the plate (area A), with the loopful of microorganisms spread the microorganisms in a single continuous movement to the center of the plate, rotate the plate 180 degrees so that the uninoculated portion of the plate is away from you. Without flaming loop, and using the same face of the loop, continue streaking the other half of the plate by starting at area B and working toward the center (avoid previous streaked area).



## **B- Discontinuous streaking method**

In this method the loop is sterilized between streaking, there is a carry over of the inoculum from one zone to the other.

This method is used to obtain a single colony in order to get a pure culture

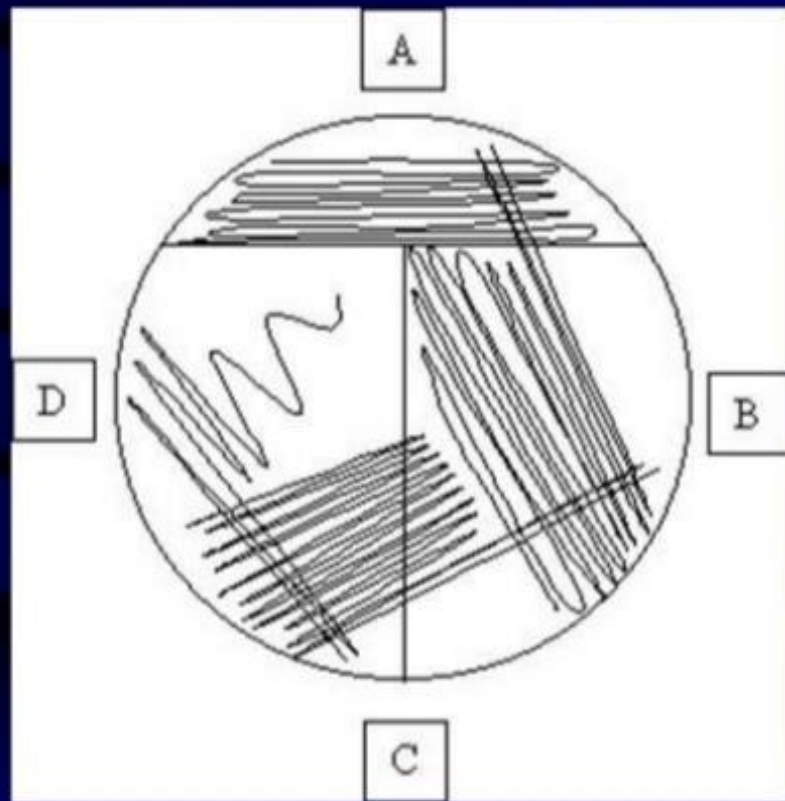
The inoculating loop is cool, Place amount of inoculum such as broth or patient specimen containing many species of bacteria near the periphery of the plate, spread the inoculum over zone (1), turn the plate  $45^{\circ}$  overlap the previous streak at several points and resterilize the loop the streak the zone (2) area.



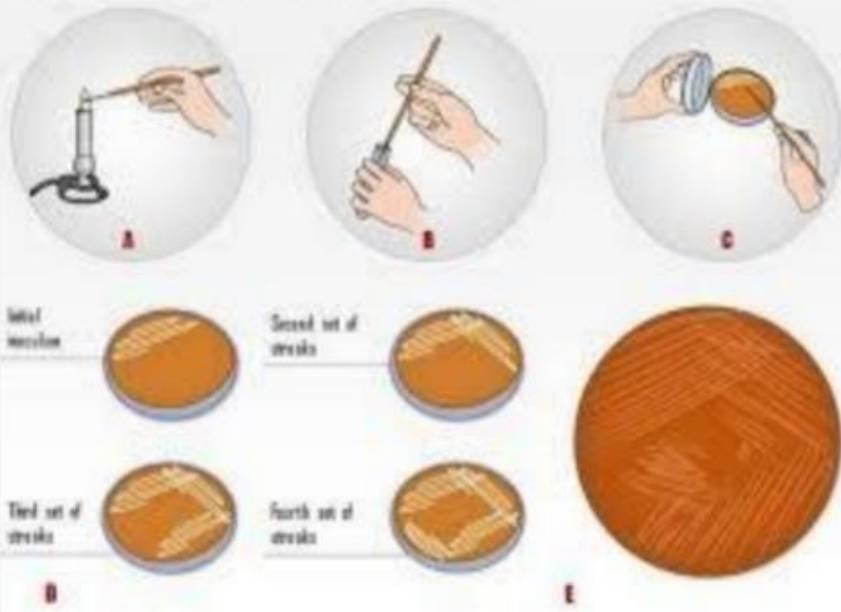
Turn the plate to  $45^{\circ}$ , flame the loop, allow the loop to cool by touching the hot loop on the agar surface at the periphery, start streaking and overlap the previous streak at several points. Finally sterilize the loop and streak the center of the plate with zigzag motion in zone.

Each time the loop gathers fewer and bacteria unit it gathers just single bacterial cells that can grow in to a colony. The plate should show the heaviest growth in the first section. The second will have less growth a few isolated colonies.

# Discontinuous Streaking



## The Streak Plate Isolation Method





*Thank you*

