

Name:

Lab 9: Food Safety

Learning Objectives:

- To learn about effectiveness of hand washing
- To learn about cleaning produce
- To learn about appropriately storing foods

GI infections occur due to contaminated food and water. Clean drinking water, washed produce, appropriate storage of food and simple personal hygiene habits such as hand washing help tremendously in reducing the incident of GI infections. In this lab, we will test the effectiveness of some of these practices.

Note: Use personal protective equipment (PPE) at all times. Follow instructions at all times. After overnight growth, seal the plates with parafilm. Do not open the plates.

Exercise 1: Personal Hygiene- Importance of Hand washing

Materials:

Nutrient agar, ruler, marker, hand soap, paper towel

Method:

1. Obtain a nutrient agar plate.
2. Use a marker and a ruler to divide the back of the agar plate in half. Mark each half as "Before Washing" and "After Washing".
3. Slightly open the "Before Washing" section of the plate and without washing your hands, gently touch your index finger on the agar plate for approximately 3 seconds.
 - a. Do not press too hard to disturb the agar
 - b. Gently touch your finger to agar, there is no need to press
4. Wash your hands thoroughly with soap and water.
5. Gently blot dry your hands using paper towel.
6. Slightly open the "After Washing" section of the plate and gently touch your index finger on the agar plate for approximately 3 seconds.
7. Keep the plates in incubator at 37°C for 24 hours.
8. During the next lab meeting, count the colonies grown in each of the sections of your plate. If it is more than 100 colonies, write TNTC (Too numerous to count) in the report.
9. Write your observations in Lab report.
10. Once observation is completed, immediately put the plates in appropriate waste container for autoclaving.

Exercise 2: Food safety- Effectiveness of washing produce

Materials:

Nutrient agar, sterile swab, marker, celery or lettuce or any other leafy greens, paper towel

Method: