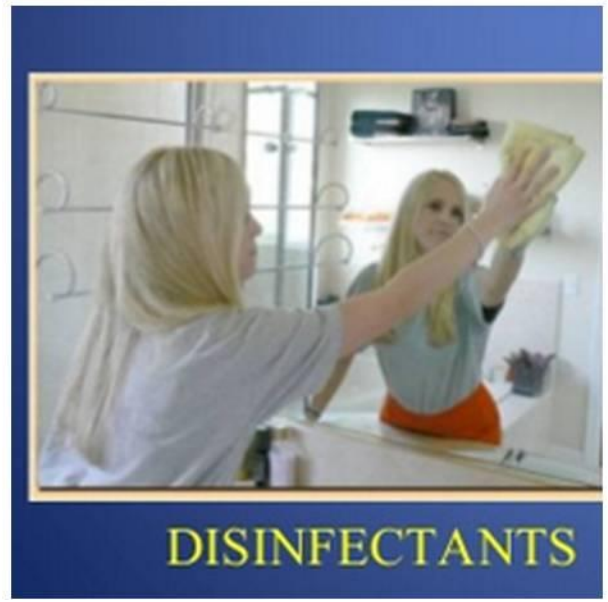
Basic terms used in the control of microorganisms

Sterilization [Latin sterilis, unable to produce offspring or barren] is the process by which all living cells, viable spores, viruses, and Viroids are either destroyed or removed from an object or habitat.

- A sterile object is totally free of viable microorganisms, spores, and other infectious agents.
- When sterilization is achieved by a chemical agent, the chemical is called a sterilant.

Disinfection:

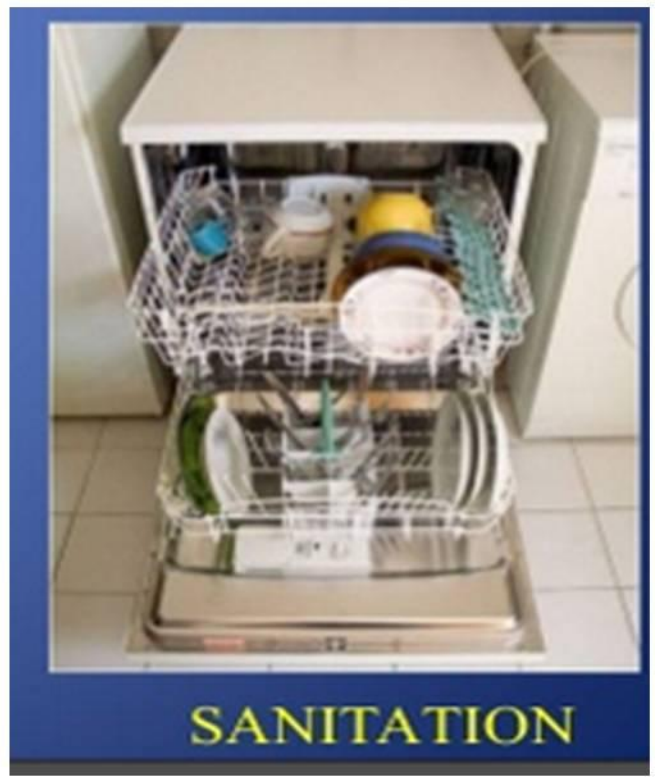
- It is the process of killing, inhibition, or removal of microorganisms that may cause disease.
- The primary goal is to destroy potential pathogens, but disinfection also substantially reduces the total microbial population.
- **Disinfectants** are agents, usually chemical, used to carry out disinfection and are normally used only on inanimate objects.
- A disinfectant does not necessarily sterilize an object because viable spores and a few microorganisms may remain.



Sanitization

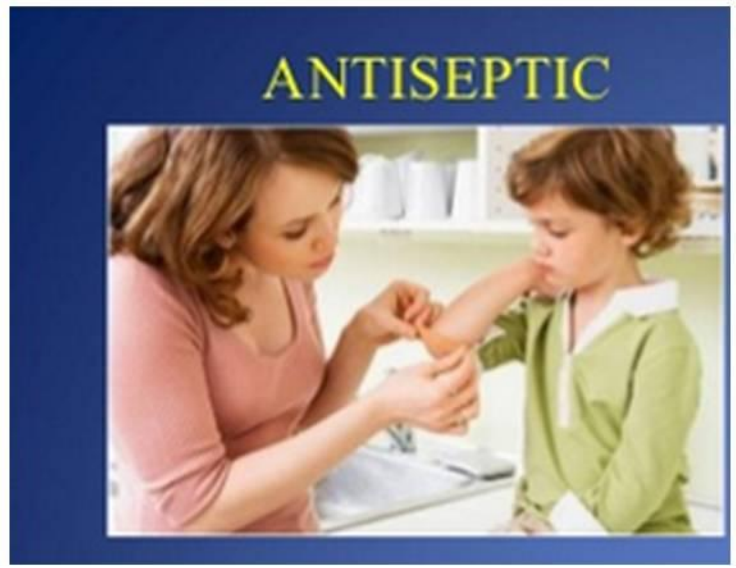
- Sanitization is closely related to disinfection.
- In sanitization, the microbial population is reduced to levels that are considered safe by public health standards.
- The inanimate object is usually cleaned as well as partially disinfected. For example, sanitizers are used to clean eating utensils in restaurants.

Sanitizer is an agent that reduces microbial numbers to a safe level



Antisepsis

- Antisepsis [Greek anti, against, and sepsis, putrefaction] is the prevention of infection and is accomplished with antiseptics.
- **Antiseptics** are **chemical agents** applied to tissue to prevent infection by killing or inhibiting pathogen growth; they also reduce the total microbial population.
- Because they must not destroy too much host tissue, antiseptics are generally not as toxic as disinfectants.



Degerming

Degerming is the physical removal of microorganisms by cleansing process using such things as soaps or detergents

Germicide or germicidal

- Substances that kill organisms often have the suffix –cide [Latin cida, to kill]: a germicide kills pathogens (and many non pathogens) but not necessarily endospores.

- A disinfectant or antiseptic can be particularly effective against a specific group, in which case it may be called a **bactericide, fungicide, algicide, or viricide.**

Germi -static

- **Chemicals that** do not kill, but they do prevent growth. If these agents are removed, growth will resume. Their names end in -static [Greek statikos, causing to stand or stopping]—for example, **bacteriostatic and fungistatic.**

Antibiotic

An antibiotic is a metabolic product produced by one microorganism that inhibits or kills other microorganisms.

Antimicrobial agent

Any agent that kills microorganism or inhibit their growth