

Lecture 14

I. Terminology

- A. _____ is the removal of all living _____.
1. We use an _____ to sterilize all the media and supplies needed for lab.
 2. Sterilization is different than _____, which means to reduce the microbial populations to levels considered safe by _____.
- B. _____ kill, inhibit growth, or remove microorganisms present on _____, like the lab bench. Disinfectants are used to sanitize objects, but they do not necessarily _____ those objects.
- C. _____ are chemical substances applied to body surfaces in an effort to prevent infection.
- D. Antiseptics, on average, are _____ than disinfectants, as they are manufactured with living tissue in mind.
- E. A disinfectant or antiseptic that is particularly effective (strong enough to kill _____) against a certain group of microorganisms may be called a _____, fungicide, algicide, **viricide**, etc.



II. Mechanisms of action of some agents commonly used as disinfectants and antiseptics

- A. _____ compounds (e.g. _____)
1. _____ proteins and perturb the _____.
- B. _____
1. Disrupt microbial _____ and denature proteins
- C. _____ (e.g. iodine and chlorine)
1. Iodine _____ cell constituents and iodinate proteins. Reactions involving chlorine result in the oxidation of cellular materials.
 2. Betadine is an iodophor. Household _____ is sodium hypochlorite.
- D. _____ (e.g. isopropanol)
1. Denature proteins and exact membrane _____.
- E. _____
1. Causes _____ of cellular materials.

