

Chapter 15 - Aids to Health

1. Immunity:

Immunity is the body's ability to resist infections or diseases. It is of two types:

- **Active Immunity:** Developed when the body produces antibodies in response to an infection or vaccination. It is long-lasting.
 - **Passive Immunity:** Acquired when ready-made antibodies are introduced into the body (e.g., through mother's milk or antibody injections). It is short-term.
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2. Methods to Aid Immunity:

- **Vaccination:** The introduction of a weakened or dead pathogen to stimulate antibody production without causing the disease. It provides **active immunity**.
 - **Immunization:** The process of making a person immune or resistant to an infectious disease, often through vaccination.
 - **Antitoxin:** A substance that neutralizes toxins produced by pathogens. It provides **passive immunity**.
 - **Serum:** Contains antibodies and is used for providing immediate protection. It is used in emergencies for passive immunity.
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3. Antiseptics and Disinfectants:

- **Antiseptics:** Chemicals applied to living tissues to kill or inhibit microbes (e.g., Dettol, iodine).
 - **Disinfectants:** Chemicals used on non-living objects to destroy harmful microbes (e.g., phenol, bleach).
 - **Difference:** Antiseptics are safe for human tissues, while disinfectants are not.
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4. Antibiotics:

- Medicines that inhibit the growth of or destroy bacteria. They are effective against bacterial infections but not viral diseases.
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5. Local Defense Systems:

- Includes skin, mucus, cilia, and body secretions that act as barriers to pathogens.
- **Merits:** Provides the first line of defense and prevents pathogens from entering the body.