

# Antiseptics: Types and Their Uses

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## Overview

Antiseptics or skin disinfectants are chemicals for cleaning the skin, wounds and mucous membrane. They can kill or prevent the expansion of microorganisms. These are most commonly used in hospitals and other medical procedures to decrease the danger of infection during surgery and other medical procedures. If you saw any type of surgery, you will notice the doctor rubbing their hands and arms with an orange tinted substance which was an antiseptic.

Antisepsis is the utilization of chemicals to kill most pathogenic organisms on animate surfaces. But the primary significance for antiseptics is the selective toxicity which means toxicity to microorganisms but not to human cells.

Antiseptics treat bacterial infections and people can apply both types of the skin and mucous membrane. People use antiseptics such as peroxides to kill microorganisms on the skin and mucous membrane.

Different type of antiseptics varies in cost, effectiveness, uses and potential side effects. Health care workers often use antiseptics before completing medical procedures like drawing blood and performing surgery. Antiseptic drugs are used in:

- The treatment of skin infections
- To kill the microorganisms in infections like cuts and wounds
- Prophylaxis and treatment of infections in mucosal areas like mouth, nose and vagina
- As a scrub for surgeons and the medical personnel sterilant

## Types of antiseptics

There are several types of antiseptics. Some of the antiseptics are safe to use at home where as others are only suitable for use in clinical or hospital procedures. Common types of antiseptics are:

**Chlorhexidine and other bigunides:** Bigunides are mostly used to treat open wounds, bladder irritation and to clean dirty damaged wounds; these agents should not be used on clean healing wounds. Their impact

on the healing wound can additionally cause increased morbidity for the patient. Try not to use it on skin areas that have cuts or scratches. Apply the medication in a well-ventilated place and don't use it while you're smoking.

**Antibacterial dye:** These help to treat wounds and burns.

**Halogenated phenol derivatives:** These are mostly used in medical grade soaps and cleaning solutions.

## Uses of antiseptics

**Hand washing:** If you have ever noticed medical professionals use antiseptics for hand scrubs and rubs in hospitals.

**Disinfecting mucous membranes:** The mucous membranes colonized by high numbers of microorganisms play a significant role as a source of nosocomial infections. According to clinical requirements it appears to be reasonable to distinguish three modes of application of antiseptics: 1. single prophylactic (before mucosa-penetrating interventions), 2. Repeated periodical (wound care, treatment of oral cavity in intubated patients, decontamination of granulocytopenic patients), 3. Therapeutic (local mucosal infections) including treatment of carriers to prevent transmission and spread of microbes. Active agents normally being used are PVP-iodine, cation-active detergents (e.g. chlorhexidine), oxygen-releasing compounds and organic mercury compounds. Presently chlorhexidine and PVP-iodine are the most regularly applied of these antiseptics while the organic mercury compounds are less important because of limited efficacy, toxicological and ecological problems.

**Treating throat and mouth infections:** Some throat lozenges contain antiseptics to help with sore throat due to bacterial infection.

While using strong antiseptics you should not apply directly to skin without diluting it with water otherwise it causes chemical burns or severe irritation. Even diluted antiseptics can cause irritation, if they are left on skin for long periods of time. This kind of irritation is named irritant dermatitis.

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