

# A Brief Note on Surgical Site Infections

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## Description

A surgical site infection is an infection that occurs after surgery in the part of the body where surgery occurs. Infections in the surgical environment can sometimes be skin-only. Some surgical procedures are very dangerous and may involve subcutaneous tissue, organs, or implants. The CDC provides guidelines and tools to the healthcare community to help end surgical site infections and resources to help the community understand these infections and take steps to protect their health if possible.

### Types of surgical site infections

SSI usually occurs within 30 days after surgery. The CDC describes 3 types of surgical site infections,

- Superficial incisional SSI: This infection occurs only in the area of the skin where the incision was made.
- SSI for deep incision: This infection occurs under the area of cuts on the muscles and tissues around the muscles.
- SSI organ or space: This type of infection can occur in any part of the body except the skin, muscles, and surrounding tissues that were involved in surgery. This involves the body part or the space between the organs.

### Signs and symptoms of surgical site infections

Any SSI may cause redness, delayed healing, fever, pain, sensitivity, warmth, or swelling. These are the other signs and symptoms for specific types of SSI.

- A superficial incisional SSI may produce pus from the wound point. Samples of the pus may be grown in a culture to find out the types of germs that are causing the infection.
- A deep incisional SSI may also produce pus. The wound site may reopen on its own, or a surgeon may reopen the wound and find pus inside the wound.

- An organ or space SSI may show discharge of pus from a canal inserted into the skin into the body area or organ. A collection of pus, called an abscess is a closed area of pus and disintegrating tissue surrounded by inflammation. An abscess may appear when the surgeon reopens the crack or by special X-ray studies.

### Treating surgical site infections

Many SSIs can be treated with antibiotics. Sometimes additional surgery or procedures may be needed to treat SSI. During recovery, make sure friends and family members wash their hands before and after entering your room. Make sure doctors, nurses, and other caregivers wash their hands, too.

### Causes and threat factors of surgical site infections

Infection after surgery is caused by bacteria. The most common of these are the bacteria *Staphylococcus*, *Streptococcus*, and *Pseudomonas*. Bacteria can enter a surgical wound through a variety of means of contact, such as touching an infected caregiver or surgical instrument, airborne parasites, or viruses that already exist in your body and then spread to the wound. The SSI level of risk is linked to the type of surgical wound you have. Surgical wounds can be classified as follows:

- Clean wounds: These aren't inflamed or contaminated and don't involve operating on an internal organ.
- Clean-contaminated wounds: These have no evidence of infection at the time of surgery, but do involve operating on an internal organ.
- Contaminated wounds: These involve operating on an internal organ with a spilling of contents from the organ into the wound.
- Dirty wounds: These are wounds in which a known infection is present at the time of the surgery.

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