

What You Need to Know About Surgical Site Infections.

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SURGICAL WOUNDS AND INFECTIONS

A surgical wound is an incision made in the skin during surgery with a scalpel or another cutting device.

Surgical wounds can be:

- Clean (uninfected)
- Contaminated
- Infected

Surgical site infections (SSIs) can develop soon after surgery if the wound was contaminated or infected.

Most SSIs result from patient's own bacterial flora.

Microorganisms that live on our skin or in our body can enter the wound and cause inflammation.

Pathogens may originate from infections that you had before the operation (perioperative infections).

External sources such as instruments, cloths and gloves of the surgical team, or environment may also contain pathogens. This, however, happens very rarely because all doctors in the hospital follow strict rules and measures to prevent SSIs.

The most common bacteria causing

- Staphylococcus aureus.
- Coagulase-negative staphylococci.
- Escherichia coli.

The most commonly identified fungal pathogens are:

- Candida spp.
- Cladosporium spp.

Several infections can be present in a wound at the same time.



Clinical presentation of SSIs depends on the severity of the infection.

Simple SSIs are usually accompanied by local signs and symptoms of infection such as:

- Redness.
- Swelling.
- Warmth.
- Tenderness.
- Pain.

An infected wound is not properly healing and can produce a yellowish, bad-smelling fluid called

More complex SSIs present with systemic signs of infection such as:

- Fever.
- Increased heart rate and breathing.
- Tiredness and lack of energy.

SEVERE INFECTIONS MAY REQUIRE HOSPITALISATION



Progression of SSIs and extension to deep tissue can cause complications and be life-threatening.

Chronic diseases such as diabetes increase your chance of getting an infection after surgery. Tell your doctor if you have any health problems.

WHAT YOU CAN DO TO PREVENT INFECTION **AFTER SURGERY**

It is possible to reduce the risk of getting SSIs by following simple rules.

Get enough energy and water:

- Eat properly and maintain good hydration.
- Follow diet recommendations provided by the doctor. You may need nutrient-enhanced nutritional formulas before surgery.

Keep your body clean:

- Shower or bathe with soap one day prior to surgery and on the day of surgery.
- Your doctor will tell you if you need to use an antiseptic wash (for example, chlorhexidine) in addition to soap.
- Do not remove hair on the site of surgery. Medical personnel will do it for you if needed.
- You may need to use nasal mupirocin cream to kill pathogens in your nose.
- Wear a specific clean clothing provided to you before surgery.

Stay warm:

- Bring additional clothing from home to stay warm before surgery.
- Ask medical personnel for a blanket if you are cold.

DO NOT TOUCH THE WOUND FOR UP TO 48 HOURS AFTER SURGERY.

If required, medical personnel will wash your wound with warm sterile saline within 24-48 hours after surgery.

To prevent further wound infection, wound cleansing should be performed regularly.

Look out for the following signs after surgery:

- Fever or other signs of systemic infection.
- Signs of progression: pain, redness, or swelling spreads.
- Pain remains and the wound gets pus, fluid, or crust.
- Inflammation does not go away or even gets worse despite treatment

If you notice any of these, speak to your doctor immediately!

WHAT YOUR DOCTOR WILL DO

The doctor will examine the infected area and order wound swabs and laboratory tests to identify the pathogen. Blood and pus from the wound may also be collected.

Diagnostic imaging may be necessary in some cases. There are several options available and your doctor will decide which one suite you better.

Sometimes, a surgical incision to reopen a wound for exploration may be required.

Your doctor may discuss your symptoms and laboratory findings with an infectious disease specialist, dermatologist, microbiologist, or surgeon.



You can use tap water to clean your wound after 48 hours post-surgery.

Avoid excessive cleansing of the wound.

TREATMENT OPTIONS

Most SSIs can be treated with antibiotics.

The aim of treatment is to eliminate the existing infection and prevent development of other infections at the same time.



♠ ANTIMICROBIAL THERAPY

If infection develops after surgery, your doctor will immediately start empirical anti-microbial treatment with broad-spectrum antibiotics. You may need to change the medication later once your culture results become ready.

The duration of treatment depends on the pathogen and severity of your symptoms. It may last up to 3 weeks.

Take your medications as prescribed by the doctor.

IMPORTANT NOTE:

ANTIBIOTICS MUST BE PRESCRIBED BY A HEALTHCARE SPECIALIST.

TAKING ANTIBIOTICS OR GIVING THEM TO YOUR CHILD ON YOUR OWN DECISION CAN BE DANGEROUS.

DEBRIDEMENT

Sometimes, wound debridement is required to help a wound heal. It involves thoroughly cleaning the wound by removing dead, damaged, or infected tissue in the wound. There are several debridement options available:

- Autolytic debridement.
- Conservative sharp debridement.
- Mechanical debridement.
- Biological debridement.

NOT ALL INFECTED WOUNDS REQUIRE DEBRIDEMENT

Future:

There are no reliable methods to predict the outcome. Some people have successful treatment for SSIs and recover fully, others may develop complications.

Speak to your doctor if you are allergic to antibiotics or taking other medications.

♣ ADDITIONAL INFORMATION

Additional information on the management of surgical site infections can be found in the National Clinical Guideline published by The Ministry of Public Health (MoPH) Qatar.

The Guideline is available to the public from the MoPH website: www.moph.gov.ga