Preventing Surgical Site Infections
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One risk of having surgery is an infection at the surgical site (any cut the surgeon makes in the skin to do the operation). Surgical site infections can range from minor to severe or even fatal. This sheet tells you more about surgical site infections, what hospitals are doing to prevent them, and how they are treated if they do occur. It also tells you what you can do to prevent these infections.

What causes surgical site infections?
Germs are everywhere. They’re on your skin, in the air, and on things you touch. Many germs are good. Some are harmful. Surgical site infections occur when harmful germs enter your body through the incision in your skin. Some infections are caused by germs that are in the air or on objects. But most are caused by germs found on and in your own body.

What are the risk factors for surgical site infections?
- Anyone can have a surgical site infection. Your risk is greater if you:
- Are an older adult
- Have a weakened immune system or other serious health problem such as diabetes
- Are a smoker
- Have certain types of operations, such as abdominal surgery
- Are malnourished (don’t eat enough healthy foods)
- Are very overweight

What are the symptoms of a surgical site infection?
The infection usually begins with increased skin redness, pain, and swelling around the incision. Later, you may notice a cloudy or greenish-yellow discharge from the incision. You are also likely to have a fever and may feel very ill. Symptoms can appear any time from hours to weeks after surgery. Implants such as an artificial knee or hip can become infected a year or more after the operation.

How are surgical site infections treated?
Most infections are treated with antibiotics. The type of medication you receive will depend on the germ causing the infection. An infected skin wound may be reopened and cleaned. Deep wounds may need to be packed with gauze that is changed frequently until the wound begins to heal from the inside out.
If an infection occurs where an implant is placed, the implant may be removed.
If you have an infection deeper in your body, you may need another operation to treat it.

**What hospitals do to prevent surgical site infections?**
Many hospitals take these steps to help prevent surgical site infections:

- **Handwashing.** Before the operation, your surgeon and all operating room staff scrub their hands and arms with an antiseptic soap.
- **Clean skin.** The site where your incision is made is carefully cleaned with an antiseptic solution.
- **Sterile clothing and drapes.** Members of your surgical team wear medical uniforms (scrub suits), long-sleeved surgical gowns, masks, caps, shoe covers, and sterile gloves. Your body is fully covered with a sterile drape (a large sterile sheet) except for the spot where the incision is made.
- **Clean air.** Operating rooms have special air filters and positive pressure airflow to prevent unfiltered air from entering the room.
- **Careful use of antibiotics.** Antibiotics are given no more than 60 minutes before the incision is made and stopped within 24 hours after surgery. This helps kill germs but avoids problems that can occur when antibiotics are taken longer.
- **Controlled blood sugar levels.** A patient’s blood sugar level may rise due to the stress of the surgery. Your blood sugar level is watched closely to make sure it stays within a normal range. High blood sugar delays wound healing and increases the chances for infection.
- **Controlled body temperature.** A lower-than-normal temperature during or after surgery prevents oxygen from reaching the wound and makes it harder for your body to fight infection. Hospitals may warm IV fluids, increase the temperature in the operating room, and provide warm-air blankets.
- **Proper hair removal.** Any hair that must be removed is clipped, not shaved with a razor. This prevents tiny nicks and cuts through which germs can enter.
- **Wound care.** After surgery, a closed wound is covered with a sterile dressing for a day or two. Open wounds are packed with sterile gauze and covered with a sterile dressing.

**What patients can do to prevent surgical site infections?**

- Ask questions. Learn what your hospital is doing to prevent infection.
- If your doctor instructs, shower or bathe with antiseptic soap the night before and the day of your operation. Follow the instructions you are given. You may be asked to use a special antibiotic cleanser that you don’t rinse off.
- If you smoke, stop or cut down. Ask your doctor about ways to quit.
- Take antibiotics only when your health care provider tells you to. Using antibiotics when they’re not needed can create germs that are harder to kill. Also, finish all your antibiotics, even if you feel better.
• Be sure health care workers clean their hands with soap and water or with an alcohol-based hand cleaner before and after caring for you. Don’t be afraid to remind them.
• After surgery, eat healthy foods.
• When you return home, care for your incision as directed by your doctor or nurse.

When to seek medical care
• Call your doctor if you have any of the following:
• Increased soreness, pain, or tenderness at the surgical site
• A red streak, increased redness, or puffiness near the incision
• Yellowish, cloudy, or bad-smelling discharge from the incision
• Stitches that dissolve before the wound heals
• Fever of 101.5°F (38.6°C), or higher
• A tired feeling that doesn’t go away

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