

Surgical Site Infections

A guide for people having surgery



**Ontario
Health**

Ontario Health is committed to improving the quality of health care in the province in partnership with patients, health care professionals, and other organizations.

To do that, Ontario Health develops quality standards. These are documents that outline what high-quality care looks like for conditions or processes where there are large differences in how care is delivered, or where there are gaps between the care provided in Ontario and the care patients should receive. These quality standards set out important steps to improve care. They are based on current evidence and input from an expert committee that includes patients, health care professionals, and researchers.

This patient guide accompanies the [quality standard on surgical site infections](#). It outlines the top seven areas where providers can take steps to improve infection prevention, identification, and care coordination for people of all ages who have surgery involving an incision (a cut through the skin). The patient guide also includes suggestions on what to discuss with your health care providers, as well as links to helpful resources.

You (and your family and caregivers, if you wish) are part of the health care team.



Below is a summary of the top seven areas to improve care for people of all ages who are having surgery.



Quality Statement 1: Risk Assessment

What the standard says

People having surgery receive a routine preoperative health assessment that includes general health evaluations and an assessment of their risk for developing a surgical site infection. These assessments are documented using a standardized approach.

What this means for you

- Before your surgery, your health care providers should assess your overall health, including your risk of getting a surgical site infection
- If you have had a surgical site infection before, or if you have a complex health condition, you may be at higher risk
- You are at high risk of a surgical site infection if you smoke, are overweight, or use substances, such as alcohol or drugs
- Your health care providers will talk to you about how to reduce your risk of getting a surgical site infection

An **incision** is a cut made during surgery. The size and location of your incision depends on the type of surgery you have. Taking care of your incision(s) after surgery reduces your risk of infection and promotes healing.



A **surgical site infection** is an infection that happens after surgery in the part of the body where the surgery took place, or in another area that was accessed during the surgery. Some surgical site infections can involve just the skin where the incision was made. Some are more serious and can involve tissues under the skin, or organs.



Quality Statement 2: Preoperative Patient Care

What the standard says

People having surgery are advised to have (or are helped to have) a shower, bath, or bed bath on the day before or the day of surgery. If hair removal is required, it is performed immediately before surgery. Nasal decolonization may be performed if indicated.

What this means for you

- Your health care providers should encourage you to have a bath or shower on the day of your surgery, or the day before. Showering or bathing will help reduce the number of bacteria on your skin. If you can't do this by yourself, ask a close friend or family member to help you
- Don't shave the area where you are having surgery. If body hair needs to be removed, a health care provider will do it for you. If you can't have body hair removed from the surgical area for religious, cultural, or other reasons, speak with your health care professional
- If you are at high risk of getting a surgical site infection, or if you have tested positive for a type of bacteria called *Staphylococcus aureus*, your health care providers may ask you to use an ointment or cream inside your nose to remove bacteria (a process called "nasal decolonization")

Most surgical site infections are caused by **bacteria**. Bacteria are tiny organisms that can only be seen with a microscope. Everyone has bacteria living on their skin. Some of those bacteria are healthy, and some are unhealthy. Having fewer unhealthy bacteria on your skin before your surgery can help lower your risk of a surgical site infection.





Quality Statement 3: Antibiotic Prophylaxis

What the standard says

If antibiotic prophylaxis is indicated prior to surgery, people receive appropriate medication based on the type of surgery—at the appropriate time, dose, and postoperative duration. This includes repeat intraoperative doses when indicated.

What this means for you

- Depending on the type of surgery you are going to have, your health care providers may give you antibiotics before your surgery. They will give them to you intravenously (that is, through a thin plastic tube into a vein in your arm). These antibiotics will help prevent a surgical site infection
- If your surgery will take a long time, your health care providers may give you more antibiotics during the surgery



Quality Statement 4: Perioperative Monitoring

What the standard says

People having surgery have their body temperature and oxygen levels optimized during the perioperative period.

What this means for you

- Your health care providers should check your temperature and oxygen levels before, during, and after your surgery to reduce your risk of a surgical site infection
- If your temperature or oxygen levels are not in the best range for you, your doctor will work with you to correct them



Quality Statement 5: Operating Room Procedures

What the standard says

People having surgery receive care from an operating room team that minimizes the transfer of microorganisms during the procedure. Specific safety measures are required for operating room personnel, equipment, and patients, as well as for the management of traffic in and out of the operating room.

What this means for you

- The team of people performing your surgery should take steps to reduce your risk of getting an infection
- These steps include washing their hands, wearing protective clothing, and moving in and out of the operating room as little as possible



Quality Statement 6: Patient, Family, and Caregiver Education

What the standard says

People having surgery, as well as their family members and caregivers, receive information, education, and support for all stages of their care. This includes the results of the risk assessment, how to prevent and recognize an infection, and who to contact if they have concerns about wound healing.

What this means for you

- Your health care providers should offer you information, education, and support for all stages of care. This includes information about your risk of infection, and how to prevent and recognize an infection
- They should provide it in a language you understand, or offer translation or interpretation services if you need them
- They should let you know what to do before and after your surgery. For example, they should tell you about symptoms of infection to watch for (see below) and what these might look like for your skin tone, and who to contact if you have a problem

If you have any of the following symptoms, contact your doctor:

- Pus or liquid coming out of your incision
- Changes to skin colour around the incision
- An area around the incision that is hot to touch
- Pain or soreness around the incision
- A bad smell coming from the incision
- Fever or chills

If you're a caregiver:

If you're supporting someone who is having surgery, you might have your own questions. It can help to let the health care providers know that you are the person's caregiver. This will make sure that they know and respect your questions and concerns.

- Let them know what your role will be in helping the patient manage before and after surgery
- Let them know if you need help



Quality Statement 7: Coordination of Postoperative Care

What the standard says

People who have had surgery are given an appropriate referral for follow-up care and treatment, if required. All members of the care team use regular written, verbal, or electronic communications to share information about the patient's status and treatment regimen.

What this means for you

- If you are at high risk for a surgical site infection or you get a surgical site infection while you are in hospital, your health care team should refer you to home and community care before you leave the hospital
- If you have signs of a surgical site infection after you leave hospital, you can get help from your surgeon, your primary care provider (for example, a family doctor or nurse practitioner), a walk-in clinic, an emergency department, or any other health system location
- If they find that you do have a surgical site infection, they should refer you for follow-up care and treatment with your surgeon, your primary care provider, or a home and community care provider
- Members of your health care team should include you in any communication about your treatment and how you're doing. They can share this information with you in person or over the phone, write it down, or make it available electronically (for example, through an app, website, or patient portal). They should share information in a language you understand, or offer translation or interpretation services if you need them

Suggestions for what to discuss with your health care providers to help you receive high-quality care

Ask the care team:

- What can I do to reduce my risk of a surgical site infection?
- How do I care for my incision?
- How do I care for my sutures or staples?
- Will I need medication (antibiotics or other medications) after my surgery?
- How will I know if I have a surgical site infection?
- Who do I contact if I think I have a surgical site infection?

Share with the care team:

- Your medical history, including whether you have had a surgical site infection before
- Any medications you are taking, including prescription medications, over-the-counter medications, vitamins and minerals, herbal and natural health products, and traditional medicines
- Any concerns you have about caring for your incision



Learn more

Wounds Canada: [Caring for Yourself After Surgery](#) is a simple guide that can be used to help you take care of your wound. It provides information on what to do before and after surgery to help prevent an infection, and how to recognize an infection, if you get one.

You might also want to ask if your hospital has patient resources.

Call 8-1-1 at any time of day to speak with a registered nurse for free, secure, and confidential health advice. You can also chat with a health care navigator or registered nurse on the [Health811 website](#).

Need more information?

If you have any questions or feedback about this guide, please contact us at QualityStandards@OntarioHealth.ca or 1-877-280-8538 (TTY: 1-800-855-0511).