



General Post-Operative Patient Advice

REDUCING YOUR RISK OF INFECTION IN SHOULDER SURGERY

Bacteria normally live on the skin and are termed skin flora. Skin flora can gain access to your body through a breach in the skin (ie. an abrasion, cut or surgical incision).

Bacteria that breach the skin can cause an infection. Your body will normally mount a response to a bacterial infection, that manifests as a red, hot, swollen and painful area (the hallmarks of acute inflammation).

Surgery creates changes in your tissue that can sometimes allow bacteria to flourish in areas that are not normally accessible or prone to infection. Some of these include (but are not limited to):

- A skin cut creates the potential for bacteria to access body tissues under the skin, that are not normally accessible to those bacteria
- Skin and deeper tissues are traumatized by surgery
- The local blood flow bringing cells and antibiotics to fight bacteria, can be temporarily compromised
- Haematoma formation (collection of blood) can provide nutrients for bacteria
- Implanted foreign material may not be accessed by normal blood vessels that carry cells or antibiotics to fight bacteria
- Tissues take time to recover from surgery and restore the normal mechanisms your body has to fight bacteria

These changes are greatest in the 1st week following surgery and as your skin heals, the tissues recover and the local blood supply is restored, the risk of infection lowers. Fortunately, despite the changes surgery involves, the incidence of infection is extremely low (less than 1% for most routine, orthopaedic cases).

In preparation for surgical procedures, every attempt is made to minimize the risk of introducing bacteria into an incision site. Skin flora are the most common causes of all surgical infections and every attempt is made to minimize this risk. However, despite all modern sterilization techniques, surgical practices and anti-microbial advancements, bacterial infection remains a risk of any surgery.

One tool surgeons use to minimize the risk of infection, is aimed at decreasing the number of bacteria on the skin prior to surgery. This technique involves preparing the skin using an anti-microbial solution, thereby decreasing the number of bacteria on the skin. This minimizes the risk of bacteria gaining access to the body at the time of surgery.

Dr Brumby-Rendell recommends several, simple steps that you can follow to prepare your skin for surgery.

Prior to all shoulder surgeries, it is recommended:

1. Pre-operative chlorhexidine surgical scrub

When: For 2 days prior to your scheduled surgery

What: Chlorhexidine surgical scrub brush

Where: To your entire operative area

How often: Once a day when showering

2. Pre-operative application of 5% benzoyl peroxide

When: For 5 days prior to your scheduled surgery

What: Apply 5% benzoyl peroxide gel

(NB. Duac Once Daily gel for patients planned for shoulder replacement surgery)

Where: To your entire shoulder & armpit

How often: Twice a day

Chlorhexadine and benzoyl peroxide are commonly-used antimicrobial solution used in surgery and have been shown to be highly effective in decreasing the number of bacteria on the skin (6 bain paper). Used effectively, this can reduce the risk of surgical infection.

Sometimes, your preparation for surgery can differ from the recommendations described in this pamphlet. The recommendations outlined in this pamphlet are aimed at decreasing the number of bacteria on your skin to minimize the risk of infection. Please note, your surgery can be performed safely and with a low risk of infection without strict adherence to these recommendations.

Reference:

[Preventing infection in shoulder surgery.](#)

Jason "J.C." Clark, Jeffrey T. Abildgaard, Jeffrey Backes, Richard J. Hawkins; J Shoulder Elbow Surg (2018) 27, 1333-1341.

For further information, please refer to:

www.asulc.com.au/patient-education/

www.asulc.com.au/FAQs