

## Care of Surgical Incisions

In general it is not possible to make wounds heal any faster than is naturally possible however we can exclude potentially harmful factors that may deter healing. These may include physical trauma to the wound, excessive dryness, excessive wetness, and movement of the wound edges, infection, inflammation or malignancy, radiation or gross nutritional deficiencies, advancing age and vascular disease.

Patients heal at different rates. The healing of your wound may appear to take longer than expected. In general wounds are 95% healed by six weeks and 99.9% healed after collagen remodeling and complete resolution takes place at around six months. Please read the following carefully on how to take care of your incision.

### Antibiotics

Occasionally, if the wound area is already infected (not just inhabited by bacteria) antibiotics may be prescribed. It is unusual for antibiotics to be prescribed for a wound that is surgically clean. The correct time to give antibiotics is in theatre, just before the surgery is commenced.

### Hand washing and general cleanliness

Before you handle a dressing or inspect the wound thoroughly wash your hands with soap for at least 15 seconds and then rinse under running water.

### Inspection of the wound

I may ask you to look at your wound to check for any separation of the wound edges, increased swelling, redness, blood or pus. If you see any of these signs or if pain increases you should seek advice. Generally speaking you should seek advice from the surgeon who is familiar with your case. Note that some swelling around the incision is normal and reflects the normal inflammatory process that is required for wound healing. It will take around two weeks to settle.

## Removal of the dressing

Most incisions do not require coverage by dressing after several days. The wound edges are generally sealed to bacteria and contamination by that time. However, with reference to the first paragraph wound dressings can sometimes provide a slightly warm moist environment, which the wound likes in order to heal effectively. You may like to protect the incision by wearing a band-aid, gauze dressing with self adhesive tape etc. These may stop the wounds rubbing on your clothes and may protect delicate healing skin from physical trauma. *It is certainly important to remove dressings once they become contaminated, dirty or start to detach themselves from the skin, as they are no longer any use.*

*Please take you dressing off in the shower the morning of your suture removal appointment.*

## Showering and bathing

If your dressings are dry and intact avoid wetting the wound for the first 24 hours. After that you can generally cleanse the wound with a mild soap and running water. Don't use a public pool or spa until you have seen me for suture removal.

## Minor bleeding from the incision

If bleeding occurs try applying gentle pressure to the incision for several minutes. A small amount of red bleeding may occur due to trivial physical trauma or disruption of the wound in the early stages. Sometimes a small pocket of blood may escape through the suture line.

## Sun exposure

Healing tissue burns easily so you should avoid direct sunlight for several months after surgery. The wound is best covered with cloth or sunscreen.

## Nutrition

A balanced diet is important for wound healing. It is unlikely that specific vitamin supplementation will result in the wound healing any faster if you are not already deficient.

## Smoking

It is important to quit smoking at least several weeks before surgery. Smoking is one of the single most important factors in poor wound healing. It leads to reduced blood supply to skin edges and increases the chance of infection.

## Removal of stitches

Times for removal of stitches varies greatly depending on the type of wound, it's size, and whether the wound is closed in multiple layers for example an abdominal incision or a single layer such as skin incision for laparoscopies. Normally speaking stitches will need to be removed at five to seven days after laparoscopies, around five days for a transverse abdominal incision, seven to ten days for a vertical abdominal incision.

## Skin tape

After stitches have been removed, or during the initial phase if you have a beneath the skin dissolving suture, I may apply self adhesive tape or Steri Strips to the wound. It has been scientifically proven that the use of tapes and Steri Strips results in a finer scar due to immobilization of the skin edges, which results in less fibroblast proliferation, and a flatter scar. You may persist with the use of Steri Strips or self adhesive tapes, provided that they don't irritate the skin, for a period of around three months. This will ensure that the scar is flat and inconspicuous as possible.

## Scar formation

During healing scar tissue always forms. The amount of scarring depends on the amount of new tissue produced. It varies from person to person and may be more prominent in those with dark skin or of Southeast Asian descent.

The scar of a newly healed wound is red and raised by necessity. With time and with the application of surgical tapes, the wound will become flatter, pinker and more inconspicuous however you can expect that the scar will be present in some way permanently.

## Possible complications during wound healing

Despite the high standards of medical care wounds may heal poorly. I will make every attempt to minimize risks, complications and inconveniences that are associated with wound care.

Generally speaking the rate of infection of wounds, with preventive antibiotics is around 2-4%, and without preventive antibiotics it is 4-6%. This varies greatly depending on the kind of wound, the site, the presence of bacterial contamination or other bacterial flora native to the patient's skin.

In many cases, if evidence for benefit exists, the anaesthetist administers antibiotics whilst you are asleep in order to minimize infection. However, this can never hope to completely eliminate wound infections.

Similarly, the skin is cleansed usually with an alcohol and Chlorhexidine based antiseptic before surgery. This cleans the skin but cannot sterilize it as some bacteria invariably remain within the very depths of the skin. These bacteria climb out of the skin onto the skin surface after around four hours.

Antiseptics may have a residual antiseptic activity on the skin after this time, which may inhibit bacterial proliferation. However they cannot eliminate it. It should be noted that most wound infections arise from the patient's own skin or body.

Infections may also arise from the hospital environment i.e. hand to skin contact or from germs living in the environment in dust, sheets, towels etc however direct transmission of infection in the operating theatre is rare.

### Key points

- Leave wounds undisturbed if possible.
- A grossly soiled or detaching dressing should be removed.
- Topical antiseptics and irritants such as Betadine, Dettol, strong soaps etc do not help and may be harmful.
- Antibiotics are rarely needed after discharge.

