This leaflet has been written to help you understand what a skin flap is. It will also explain some of the risks and complications.

**What is a skin flap?**

Sometimes after a piece of skin has been removed, either surgically or traumatically, a wound can result. If the wound edges are unable to be brought together (direct closure) then skin from another area has to be used, either as a graft or flap. The area that the skin is taken from is called a donor site.

A skin graft uses skin that has been completely removed from the donor area. A flap uses skin close to the wound, or it can stay attached at one end and the other end is moved to cover the wound. It can be completely removed and moved from one part of the body to another. Occasionally when using large flaps a skin graft may be used to cover the donor site or the flap itself.

Flaps differ from skin grafts in that they bring their own blood supply. They usually work better and give a superior appearance, but it is often a bigger procedure and may involve more than one operation. Flaps are very versatile, in that skin, muscle and very occasionally bone can be used to reconstruct wounds.

You will need to discuss with your plastic surgeon which type of flap best suits your needs.

**Types of skin flaps**

**Local flap**

Skin is used from an area that is very close to the wound such as a wound on the side of the nose may be repaired with skin from the cheek. This requires one operation.

**Regional flap**

Skin used is not next to the wound but is from the same area of the body such as a wound on the tip of the nose might be repaired with skin from the forehead.

**Distant flap**

Skin is used from a different part of the body such as a wound on the hand might be repaired with skin from the groin.

Occasionally regional and distant flaps require two or more operations. The second operation is generally when the flap needs to be detached at one
end, when the blood vessels have developed at the other end. This is most common in X-finger flaps or repairs using a pedicled groin flap.

**Free flaps**

This is the same procedure as for a distant flap, but the operation is carried out in one stage. The donor site and the blood vessels are repaired by microsurgery.

**Complications and side effects**

Complications after this surgery are uncommon but they do occasionally occur. Specific complications will be discussed in detail with your surgeon. This is a list of the most common complications.

**Bleeding**

A haematoma is a collection of blood underneath the flap. Drains, which are soft plastic tubes, are put in the wound to try to stop this from happening. If this does happen then a small second operation may be required. The number of drains and the length of time that they stay depends on the type of operation you are having.

**Infection/wound dehiscence (break down)**

Wound infection is a risk of any operation. A short course of antibiotics is usually started at the time of operation for those having surgery under a general anaesthetic, but this is reviewed on an individual patient basis. If an infection happens this can sometimes cause the wound to break down (dehiscence). Dressings may then be required allowing the wound to heal completely.

**Flap necrosis (partial or complete death of the skin)**

This occurs when the blood supply to the flap is compromised. This will cause the flap to die either partially or completely. Depending on how severe the flap loss is, a second operation maybe required. For distant and free flaps, the nurses will be observing the flap very closely in the initial post-operative period.

**Scars/hypertrophic scarring**

All surgery leaves scars. There will be scars from where the flap has been taken as well as from the wound. To begin with all scars are red, itchy and tender. Scars can take up to a year to fully mature and settle down to become fine white scars. In a small number of patients the scars can remain red, raised, itchy and tender. This is called hypertrophic scarring.

**Uneven outline/bulkiness**

If a flap has been used to cover a wound after injury, it is often bulky and has an uneven outline. This is due to the necessity of covering the wound quickly and effectively. A small amount of shrinkage can occur, but the flap needs time to settle. Any further surgery needs to be discussed with your consultant, several months after the initial surgery.

**Stitches**

Surgeons use a mixture of dissolvable stitches and stitches that need to be removed, depending
on the type of flap and its position on the body. As a general guide stitches on the head and neck are normally removed at 7-10 days and all others around 14 -21 days.

**Pain control**

Pain killers can be given in the form of tablets, injection or via a drip. For patients who have local flaps, tablets are usually sufficient. For patients that have distant or free flaps, injections are effective. Local anaesthetic via a tube into a wound can also be used.

**Deep vein thrombosis (Venous thromboembolism - VTE)**

This is caused by a blood clot forming in the leg veins. To help prevent this you will be encouraged to be up and about as soon as possible after the operation. Blood clots are a serious complication and if a clot breaks away from the vein in the leg it can travel to the lungs and cause a pulmonary embolism which can be fatal. To help prevent this happening you may be given a small injection of a blood-thinning medicine every day. This makes your blood take slightly longer than normal to clot which reduces the risk of a blood clot forming.

**Post operative care**

**Bed rest**

If you have had a flap put on to your lower limb, or the donor site is the abdomen or groin, then you will be expected to stay in bed until your surgeon decides you may start to walk. This is normally for a minimum of 48 hours with lower limb flaps.

**Dressings**

Dressings are normally required for a couple of weeks. Sometimes a skin graft is applied directly on to the flap. If this is the case, then the dressings will be required for a few weeks until the wound and skin graft have completely healed. To make sure that your care will continue after you leave the hospital dressings and a letter to your practice/district nurse will be given to you when you are discharged from hospital (if your dressings require changing between discharge and your outpatient appointment). Sometimes if your wounds are well healed you may go home without any dressings.

**Driving**

This is different for each patient. Please discuss it with your consultant and make sure you tell your insurance company.

If you have any worries or questions, please contact the Plastics and Burns Unit 01722 336262 ext 3507 evening and weekend. Monday to Friday during the day please contact Plastic Outpatients 01722 336262 ext 3254.

We wish you a speedy recovery and thank you for taking the time to read this leaflet.