

## Keloids and Hypertrophic Scars

Keloids are raised, reddish nodules that develop at the site of an injury. After a wound has occurred to the skin both skin cells and connective tissue cells (fibroblasts) begin multiplying to repair the damage. A scar is made up of “connective tissue”, gristle-like fibers deposited in the skin by the fibroblasts to hold the wound closed. With keloids, the fibroblasts continue to multiply even after the wound is filled in. Thus keloids project above the surface of the skin and form large mounds of scar tissue.

Keloids may form on any part of the body, although the upper chest, shoulders and upper back are especially prone to keloid formation. Symptoms include pigmentation of the skin, itchiness, redness, unusual sensations and pain.

It is estimated that keloids occur in about 10% of people. While most people never form keloids, others develop them after minor injuries, even insect bites or pimples. Darkly pigmented people seem to be more prone to forming keloids. Men and women are equally affected.

A hypertrophic scar looks similar to a keloid. Hypertrophic scars are more common. They don't get as big as keloids and may fade with time. They occur in all racial groups. Keloids are considered a benign tumor but they are mainly a cosmetic nuisance and never become malignant. Operating on a keloid usually stimulates more scar tissue to form, so people with keloids may have been told that there is nothing that can be done to get rid of them.

Keloids may often be prevented by using a pressure dressing, silicone gel pad or paper tape over the injury site. These are left on for 23 of 24 hours each day. This treatment is after healing of the wound or injury, usually within a month. Once they have formed, there is no completely satisfactory treatment for keloids. Treatments include cryosurgery (freezing), excision, laser, x-rays, and steroid injections.

The best initial treatment is to inject long-acting cortisone (steroid) into the keloid once a month. After several injections with cortisone, the keloid usually becomes less noticeable and flattens in three to six month's time. Hypertrophic scars often respond completely, but keloids are notoriously difficult to treat with recurrences commonly seen. People who have a family history of keloids have a higher rate of recurrence after treatment.

Cryosurgery is an excellent treatment for keloids that are small and occur on lightly pigmented skin. It is often combined with monthly cortisone injections. Earlobe keloids are often surgically excised and followed with several steroid injections. Recently, a new drug called alpha-interferon has been injected into the scar immediately after keloid removal with very promising results. Laser treatment is very good at improving skin texture and color, but doesn't always flatten out the keloid.

For severe cases, the keloid can be surgically excised and given x-ray treatments to the site immediately afterwards, usually on the same day. This works in about 85% of the most severe cases. Electron beam radiation can be used, which will not go deep enough to affect internal organs. Orthovoltage radiation is more penetrating and slightly more effective. There have not been any reports of this causing any form of cancer in many years of use, but it is very expensive. Silicone pads and creams are sold for use on keloids. These do benefit hypertrophic scars but will not cure a true keloid. However, they can reduce pain, swelling and itching from a keloid. They usually take 3 months or more to work.