

BSSH

The British Society for
Surgery of the Hand

What is a nailbed injury?

The nail bed is the tissue underneath the fingernail which includes the underlying bone and the surrounding skin. Nailbed injuries range from bleeding under the fingernail (causing dark discoloration), the fingernail being torn off fully or partially from the fingertip, cuts through the fingernail which may include a break in the underlying bone, to near amputation of the fingertip. The usual causes are catching the fingertip in a door, this is particularly common in children, and accidental cutting or crushing injuries from using tools.

How is it treated?

The aim of treatment is to wash out the wound to prevent subsequent infection, restoration of the normal anatomy of the soft tissues and/or bone to return normal function and appearance and closure of the wound to allow rapid healing. The wound should be washed under a tap immediately. Painkillers should be taken as soon as possible so that subsequent treatment, for example putting on a dressing, is less uncomfortable. Gentle sustained pressure on the wound with elevation of the hand will stop the bleeding. A minor injury in adult may not necessarily need medical attention. For example, a simple crush injury to the fingertip will gradually heal by itself over a couple of weeks or so. A more serious injury, particularly in a child, is best assessed by a health professional.

They will wash out the wound and apply a dressing. The wound may require stitching or rarely the broken bone may need repairing. In an adult or mature child this can be performed by injecting the finger with local anaesthetic. In younger children a general anaesthetic will be required to undertake surgery. It is best to keep the child nil by mouth, with the exception of painkillers, until they have been seen by a health professional. This is because an empty stomach is required for a general anaesthetic and if the finger is very badly damaged, surgery may be required the same day. If there is a suspicion the bone is broken, an x-ray will be taken. In the vast majority of cases the broken bone does not require anything more than the wound being stitched, but in more severe breaks, a pin or wire, may need to be put into the bone. Painkillers should be taken regularly after surgery, at least for the first few days.

A change of dressing is usual at about a week after injury. Antibiotics are not routinely required for nailbed injuries but they may be prescribed for more severe cases. Further appointments may not be needed after the first dressing change but more severe injuries may need several. X-rays may be required if the bone has been broken. A second operation may be required to remove a wire from the bone. Often the wire is left protruding from the skin in which case it can be removed simply in clinic. It is important to keep the remaining joints in the finger fully mobile to prevent stiffness. Occasionally a course of physiotherapy is required.

What is the outcome?

In most cases the outcome from a nailbed injury is very good, particularly in children. Often the fingernail is removed during surgery. You can expect a new fingernail to grow over the next three months. The new fingernail can be quite thick and ugly to begin with but as time passes it regains a normal appearance. It is very rare that a fingernail regrows with a permanent deformity. Pain usually subsides after the first two weeks although it is possible to have some persistent mild discomfort particularly in the winter. The finger may have some stiffness initially which will settle with normal use.

Infection is rare but if it happens the finger will become hot, red and painful. It's important to seek medical attention if this occurs. This can usually be treated with a course of oral antibiotics. Rarely in severe injuries the damaged part of the fingertip doesn't survive and the affected area either develops infection or gradually turns black. Further surgery may be required to remove the dead tissue.