

# Amputation and Prosthetics

## What is amputation?

Amputation is the removal of an injured or diseased body part. An amputation may be the result of a traumatic injury, or it may be a planned operation to prevent the spread of the disease in an infected finger or hand. Some traumatically amputated fingers may be replanted or reattached. In many cases, reattachment of the amputated finger is not possible or advisable because the patient will be more comfortable and have better function if the part is not reattached.

## How is an amputation done?

When an amputation is necessary, the surgeon removes the injured body part. Prior to surgery, the surgeon will do a careful examination of your hand. Often the surgeon will obtain x-rays or other imaging studies to assess the damage to your finger/hand. The area removed is based on the extent of the injury and the health of the remaining body part. In many cases, the surgeon is able to close the amputation site by rearranging skin and shortening bone or tendon. Sometimes, the surgeon may have to use skin, muscle or tendons from another part of your body to close the amputation site. In most finger tip injuries, the surgeon is able to close the amputation directly. In more extensive injuries, the surgeon may shape the finger or the hand to be able fit a prosthesis later.

## What can I expect after surgery?

For the first couple of weeks, you should expect some pain. Pain will be controlled with pain medications. While you are healing, your doctor will tell you how to bandage and care for the surgical site and when to return to the office for follow-up care. You may be given exercises to build your strength and flexibility. You may be asked to touch and move your skin to desensitize it and keep it mobile.

## What type of prosthesis will I get?

The type of prosthesis depends on the location and length of your residual finger or hand and your functional and lifestyle needs. The prosthesis replaces some of the function and appearance of the missing body part. It is important to share the activities that you feel are most important with your surgeon and prosthetist, so an appropriate prosthesis can be provided for you. Prostheses

can restore length to a partially amputated finger, enable opposition between the thumb and a finger or, in the case of a prosthetic hand, stabilize and hold objects with bendable fingers. If your hand is amputated through or above the wrist, you may be given a full-arm prosthesis with an electric or mechanical hand. Some patients may decide not to use a prosthesis.

## How is a prosthesis made?

A prosthesis is made from an impression cast taken from the residual finger or limb and the corresponding part on the undamaged hand. This process can create an exact match to the details of the entire hand. The prosthetic finger or hand is made from of a flexible, transparent silicone rubber. The colors in the silicone are carefully matched to your skin tones to give the prosthesis the life-like look and texture of real skin. The prosthetic is usually held on by suction, and the flexibility of the silicone permits good range of motion of the remaining body parts. Fingernails can be individually colored to match almost perfectly. The nails can be polished with any nail polish, and the polish can be removed with a gentle-action nail polish remover. Silicones are resistant to staining, so inks wash off easily with alcohol or soap and warm water. With proper care, silicone prosthesis may last 3-5 years. Usually, three months after you are completely healed from surgery and all swelling has subsided, creation of your prosthesis can begin. You may need therapy to learn to use your new prosthesis.

## What kinds of feelings are common following an amputation?

The loss of a body part, especially one as visible as a finger or hand, can be emotionally upsetting. It may take time to adapt to changes in your appearance and your ability to function. Talking about these feelings with your doctor or other patients who have had amputations often helps you come to terms with your amputation. You may ask your doctor to recommend a counselor to assist with this process. It is important to remember that with time, you will adapt to your situation by finding new ways of doing your daily activities. The Amputee Coalition of America [www.amputee-coalition.org/index.html](http://www.amputee-coalition.org/index.html) is another helpful resource. These resources can help you to be strong during the course of recovery. Remember that quality of life is directly related to attitude and expectations – not just obtaining and using a prosthesis.

