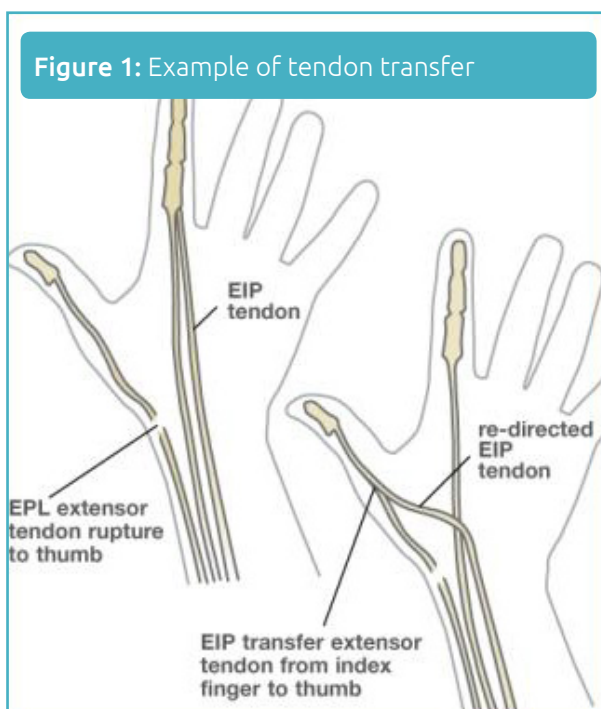


The tendon is the strong cord at either end of a muscle that is attached to bone. Tendons, combined with their muscles, allow you to move your joints.

In the forearm and hand there are over forty different muscles. Many of these muscles perform overlapping functions. After an injury, some of your muscles may not move correctly. A tendon transfer is a surgery that moves a working muscle and tendon to replace a non-working muscle and tendon.

For example, after a broken wrist, the tendon to the thumb (EPL tendon) that allows you to make a “thumbs-up” can break. Often, the two ends of the tendon are very damaged and cannot be sewn back together. There are two tendons that extend the index finger, and this finger can function adequately with just one. A hand surgeon can transfer one of the index finger tendons to the thumb to allow you to give a “thumbs-up” again (Figure 1).



Causes

You may need a tendon transfer to restore function after loss of muscle or tendon function from:

- Nerve injury (cut, stretched or torn nerve)
- Muscle injury (trauma, rheumatoid arthritis)
- Neuromuscular disorder (cerebral palsy, stroke, traumatic brain injuries, and spinal

- muscle atrophy)
- Birth defect (infants born without certain muscle functions)

Treatment

Procedure

The surgery may be performed with you awake, you may have mild sedation, or you may be completely asleep. The type of anesthesia depends on your injury, and it is a decision made between you and your surgeon.

The surgeon makes one or more incisions (cuts) in the skin. After finding the tendon of the extra muscle, the surgeon moves it and sews it to the tendon of the muscle that is not working. Sometimes more than one tendon transfer will need to be done at a time. The surgeon then closes the skin with stitches.

Recovery

After surgery you may have a cast or splint to protect the new tendon transfer until the tendon heals to its new position. This usually takes one to two months. The need for hand therapy and the timing of therapy varies and will be determined in a discussion with your surgeon. It is important to attend your hand therapy if it is prescribed and to follow the therapist's instructions exactly. Too little movement or too much movement can both create problems.

Risks

The early risks are rare but can include bleeding, infection or injury to nearby nerves, tendons or blood vessels. Later risks include hand stiffness, weakness of the transferred muscle, or rupture of the transfer and need for another surgery.

Other Treatment

Your hand surgeon will discuss with you if there are any alternatives for your particular injury. Alternatives may include:

- Repair or transfer of nerves
- Repair of muscle or tendon
- Splinting or fusion of joints

Find a hand surgeon in your area to discuss the best treatment option for you by visiting www.findahandsurgeon.com.