

### Dupuytren's Contracture

Dupuytren's contracture is a hereditary condition that involves the fibrous layer of tissue underneath the palm and fingers called the fascia. In this disorder, the fascia becomes thickened and forms nodules (knots) or cords in the hand which cause the fingers to curl (flex) down into the palm. This process occurs gradually and is usually painless.

There is no known cause for Dupuytren's, but some people have greater risk factors for developing this condition. It is usually seen in people with Northern European ancestry (English, Irish, Scottish, German, Dutch, French and/or Scandinavian). Other risk factors include family history, excessive alcohol use, diabetes, seizures, and increased age. Dupuytren's contracture is more common in men than women.

People with Dupuytren's contracture may find it difficult to use their hands because they cannot straighten their fingers. Grasping large objects or putting their hands in their pockets may become impossible. There is no way to stop or cure Dupuytren's contracture. However, it is not dangerous. Dupuytren's contracture usually progresses very slowly and may not become troublesome for years. It may never progress beyond lumps or small cords in the palm.

### Collagenase Injection

Collagenase is an enzyme that breaks down collagen. Some patients with significant contracture in the hand may be eligible for collagenase injection done in the office. The cord in the hand will be injected with the collagenase medication and 48 hours later you will return to the office to extend the finger. Local anesthetic may be offered for comfort with this but is not necessary. After the procedure, instructions of daily exercises will be provided as well as a splint which will need to be worn at bedtime for 4 months. It is important to note that this will not remove the scar tissue but rather break up the scar tissue to allow improved finger motion. Please consult with a hand specialist experienced with this procedure to determine if you are a candidate and if insurance will cover the treatment.

### Surgical Intervention

Surgical intervention is pursued if the contractures significantly affect the patient's ability to perform daily activities. Doctors often use the table top test to determine if surgery is warranted. The patient is asked to lay his hand flat on a table; if he is unable to do so then surgery may be an option for the patient. Other treatment options include steroid injections and splints. A steroid injection may be helpful for nodules that are painful or tender. It does not eliminate the contracture. Splinting does not prevent worsening of the contracture. Forceful stretching will not help either and may speed the progression of contracture. A new, less invasive procedure called needle aponeurotomy is being performed by some hand surgeons. Recovery is much faster, but long-term outcome is unknown. The procedure requires special technical expertise and has greater risk of nerve and/or vessel damage.

### Explanation of Procedure

Surgery for Dupuytren's contracture divides or removes the thickened bands to help restore finger motion. Careful surgical dissection is needed as these cords often wrap around the nerves and blood vessels to the finger. For this reason, this surgery is usually performed under a general anesthetic. Because the skin also contracts as the finger curls down, the skin surrounding the incisions is often rearranged to close the wounds. Sometimes the wound is left open and allowed to heal gradually. Skin grafting may be needed occasionally as well.

### **Preparing for Surgery**

Once the patient decides to have surgery, the physician and his staff will schedule the procedure at the local hospital or surgery center. Blood tests are usually obtained to make sure the patient is safe for surgery. If the patient has multiple or severe medical conditions, he/she may see her primary care doctor for a physical exam prior to surgery. Patients are instructed to have nothing to eat after midnight the day before their surgery. All blood thinning medications, including anti-inflammatories such as ibuprofen and aspirin, should be stopped 7 days prior to surgery. In addition, certain medications for rheumatoid arthritis will need to be stopped as well. Your surgeon will go over your medication list and let you know which medications will need to be stopped.

### **What to Expect at Surgery**

Expect to arrive at the hospital or surgery center at least 1-2 hours prior to your actual surgery time. This gives the staff time to meet you, get all your paperwork in order, and make sure you are safe and ready for surgery. You will meet many different people on the day of surgery. A preoperative nurse will get you dressed and ready for surgery. The anesthesiologist will discuss the different options available to help you sleep comfortably and pain-free during the actual surgery. The circulating nurse and scrub tech assist the surgeon during the procedure. Finally, the postoperative nurse will help you recover from the anesthesia after the surgery. Depending on the type of anesthesia you receive, you may be in the postoperative care area from anywhere from a half hour to three hours after your procedure. A friend or relative will need to drive you home after you are released from the postoperative care unit.

### **Care After Surgery**

Hand therapy is usually begun 1-5 days after surgery. The hand therapist will take down the surgical dressing, begin range of motion exercises, and teach you how to change your dressing daily. He/she will also make a splint that keeps your fingers straight. This brace is worn only at night for the 1-3 months. You will see your surgeon in the office about one week after surgery for suture removal and wound check. Over the next four to six weeks, you will work on being able to make a full fist and completely straightening out your fingers. Most patients are able to return to full activity with minimal discomfort at 6-8 weeks.

### **Possible Complications and Instructions**

Risks of surgery include injury to nerves and blood vessels, and infection. Permanent stiffness of the fingers may occur, although this is also rare. Temporary numbness in the finger occasionally occurs especially if the nerves to the finger are wrapped around the cords. Because Dupuytren's contracture is a genetic condition, some level of recurrence is common, occurring in about 20% of patients.

### **Questions**

The CORE Institute is dedicated to your outcome. If any questions or concerns arise, please call The CORE Institute at 1.866.974.2673.