The Medical Minute: Doctor, why are my fingers curling up?

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Dupuytren's (pronounced DOO-pwee-trens) disease or contracture is an abnormal, progressive thickening of the fascia of the hand (the layer underneath the skin). The disease is inherited, and a patient's children have at least a 50 percent chance of carrying the abnormal gene. The severity of the disease, however, may vary greatly (new patients are often unaware of any family members having the disease). It is much more common in people of Scandinavian, British or eastern European descent.

The typical patient is more than 40 years old, with men affected more often than women. Diagnosis is typically made based on physical examination alone. Characteristic findings include nodules (lumps) in the palm, pitting of the skin, thick cords under the skin, and contractures (curling of the fingers). The pinkie and ring fingers are most commonly affected. Your doctor will rule out other conditions that may present in a similar manner, such as trigger fingers (a much more common condition), nerve or tendon injuries and skin tumors.

Does a diagnosis of Dupuytren's disease mean that surgery is necessary? Well, it depends. Surgery is recommended if and when significant curling of the fingers is present. An easy way to evaluate this is the so-called table-top test. If the patient is able to place the involved hand(s) flat on a table (palm-down), then observation alone is recommended. Indicators that significant progression is likely to occur include a strong family history, early presentation, involvement of both hands and involvement of the feet (tender lumps in the arch).

If surgery is necessary, several options are available. Over the past few decades, the mainstay of treatment has been partial fasciectomy, which consists of removing the diseased tissue, while taking care to avoid injury to the nerves and vessels. Other possible complications include wound healing problems, pain, stiffness and recurrence. Rehabilitation may be extensive, and includes wound care, occupational therapy and use of a nighttime splint for three to six months.

Appropriately selected patients can be treated with less invasive procedures that aim to disrupt the abnormal tissue enough to restore motion, without actual excision of the diseased tissue. This can be done mechanically (percutaneous fasciotomy/aponeurotomy) with a small needle or chemically (chemical fasciotomy) with injections of enzymes (proteins that break down the diseased tissue). Both procedures are done in clinic under local anesthesia. They are relatively painless, and rehabilitation is simpler. The main disadvantages are earlier recurrence and risk of injury to nerves, vessels and tendons. These procedures should therefore be performed by specialists, who will determine whether you are a suitable candidate.

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