

Canadian Centre for Occupational Health and Safety * Centre canadien d'hygiène et de sécurité au travail

Diseases, Disorders and Injuries

Dupuytren's Contracture

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What is Dupuytren's contracture?

Dupuytren's contracture is a hand disorder in which the fingers bend towards the palm and cannot be straightened. The little or ring fingers are most commonly affected, but any or all fingers can be involved. Dupuytren's contracture is the end result of Dupuytren's disease, the most common heritable disorder affecting connective tissues. Not all people experience the contracture (bent fingers).

Dupuytren's contracture progresses slowly and is usually painless. The disorder develops when the tissues under the skin of the palm thicken, forming knots (collagen nodes or nodules) and cords of tissue. These cords can then shorten, pulling one or more fingers into a bent (contracted) position, which cannot be straightened.

What are the risk factors for Dupuytren's contracture?

The exact cause of Dupuytren's disease has not been identified. Factors that have been associated include:

- Age and sex (more common in males older than 40)
- Family history
- Genetic ancestry (more common in people of Northern European descent)
- Tobacco and alcohol use
- Diabetes mellitus
- Epilepsy (possible association with anticonvulsant medications but this association remains controversial)

- Chronic heavy manual labour and vibration exposure
- Hand injury
- Hypercholesterolemia
- Lower than average body mass index (BMI)

Many studies suggest these factors can be associated with, but do not cause, Dupuytren's disease. Other studies do not show these associations.

How is Dupuytren's Contracture treated?

There is currently no cure for Dupuytren's contracture. Often no treatment is required. Some methods have been investigated for the treatment of Dupuytren's contracture where the disorder is painful or interferes with the use of the hand. These treatments include medications, physical therapy, fasciotomy, enzyme injections, radiation therapy, steroid injection, or collagenolytic agents. Some of these treatments are more effective than others.

Currently, surgery is the widely accepted treatment for an accurately diagnosed case of Dupuytren's contracture. The disease may recur within 10 years of surgery.

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