

ENTITLEMENT ELIGIBILITY GUIDELINES

DE QUERVAIN DISEASE

(also de Quervain's, DeQuervain's, Washerwomen's Sprain)

MPC 01332
ICD-9 727.0

DEFINITION

De Quervain Disease affects the soft tissue in the thumb down to and including the juncture of the thumb with the wrist.

De Quervain Disease is entrapment of the abductor pollicis longus and extensor pollicis brevis tendons as they pass beneath the extensor retinaculum at the radial styloid.

The terms De Quervain Disease and De Quervain tenosynovitis are synonyms for the purposes of this guideline.

Please note: Entitlement should be granted for a chronic condition only. For VAC purposes, "chronic" means that the condition has existed for at least 6 months. Signs and symptoms are generally expected to persist despite medical attention, although they may wax and wane over the 6 month period and thereafter.

DIAGNOSTIC STANDARD

Diagnosis by a qualified medical practitioner is required. For pension purposes, location must be specified as to right or left, and evidence of duration of a disability for at least 6 months should be provided.

Diagnosis of De Quervain Disease is mainly clinical. A positive *Finkelstein's* test will be demonstrated (see CLINICAL FEATURES).

ANATOMY AND PHYSIOLOGY

Six separate compartments of the extensor muscles exist within the forearm and wrist. De Quervain Disease is a disorder of the extensor tendons in the first dorsal compartment of the forearm.

The extensor retinaculum holds the tendons close to the bone as they pass from the forearm to the hand. Normally, the tendons glide smoothly through the fibroosseous

canal. The first dorsal compartment contains the tendons of the abductor pollicis longus and extensor pollicis brevis. Tendon thickening or sheath narrowing from a variety of causes can impede smooth tendon gliding. Tendon pain and swelling can result. The swelling may further impede smooth tendon gliding.

Tenosynovitis, which implies an inflammatory process, has been used to describe De Quervain Disease. It is now generally accepted, however, that there is no evidence of an inflammatory process.

CLINICAL FEATURES

De Quervain Disease affects more women than men. The age of onset is generally between 30 and 60 years of age.

The disorder most commonly occurs after repetitive use, as in the wringing motion of the wrist, which has led to the name "Washerwomen's Sprain".

Painful wrist and thumb movements is the most common complaint. Pain may radiate into the hand and forearm, and be worsened by abduction and/or extension of the thumb. There may be localized swelling.

Physical findings include tenderness, crepitus on palpation along the radial forearm, and a positive *Finklestein's* test.

Finklestein's test consists of flexing the thumb across the palm inside a clenched fist and placing the wrist in ulnar deviation to determine if pain occurs.

PENSION CONSIDERATIONS

A. CAUSES AND/OR AGGRAVATION

THE TIMELINES CITED BELOW ARE NOT BINDING. EACH CASE SHOULD BE ADJUDICATED ON THE EVIDENCE PROVIDED AND ITS OWN MERITS.

1. Overuse prior to clinical onset or aggravation

For overuse to cause or aggravate De Quervain Disease, the following should be evident:*

The overuse activity should be performed for at least 60 days out of 120 consecutive days; *and*

Signs/symptoms should begin during the overuse activity, or within 30 days of cessation of the activity; *and*

Signs/symptoms should be ongoing or recurrent for at least 6 months to be considered “chronic” for pension purposes.

**The definitions and criteria apply to a normal joint. The total time per day or total number of days required to qualify as overuse may be less when the joint is abnormal or where other pertinent circumstances exist. To illustrate:*

1) A combination of relevant factors (where only 1 factor is required for overuse) may reduce the total time per day required to qualify as overuse, e.g. activity involving both high repetition and extreme posture as defined may require performance of the overuse activity less than 2 hours per day, OR activity involving extreme posture as defined and a level of high repetition which is in excess of the definition (e.g. 10 times per minute) may require performance of the overuse activity less than 2 hours per day.

2) A combination of one or more relevant factors performed to excess for more than 2 hours per day may reduce the total number of days required to qualify as overuse, e.g. activity of high repetition in the order of 10 times per minute performed 4 hours per day may require performance of the overuse activity for less than 60 out of 120 consecutive days.

Overuse means high repetition and/or high force and/or extreme posture of the soft tissue in the thumb down to and including the juncture of the thumb with the wrist for a substantial part of the day prior to clinical onset or aggravation.

High repetition means actions performed more than 2 to 4 times a minute, or cycles less than 30 seconds.

High force means hand weights of more than 4 kg.

Extreme posture means over half of range of movement of the wrist/thumb area.

Substantial part of the day means for a total of 2 hours or more per working day.

Determination of a service-relationship for an overuse syndrome will generally depend on whether the overuse factors can be seen to have arisen out of or to be directly connected with the performance of military duties.

The following motions may cause or aggravate De Quervain's:

repetitive, forceful radial or ulnar deviation of the wrist with abduction and extension of thumb;

rapid rotational movements of the forearm

High risk occupations and activities associated with De Quervain's include, but are not limited to, the following:

- switchboard operation
- typing
- sewer/cutter
- packer
- electronic assembly worker
- piano playing
- golfing
- fly casting
- knitting
- peeling vegetables

2. Specific trauma prior to clinical onset or aggravation

For specific trauma to cause or aggravate De Quervain Disease, the following should be evident:

Within 24 hours of the injury, development of tenderness, pain, swelling, discoloration, or altered mobility, or any other pertinent sign or symptom, should occur of the soft tissue in the thumb down to and including the juncture of the thumb with the wrist, *and*

Signs/symptoms should recur, either continuously or intermittently, from the time of the specific trauma to the time of diagnosis.

Specific trauma is physical injury to the soft tissue in the thumb down to and including the juncture of the thumb with the wrist occurring prior to onset or aggravation of De Quervain Disease.

Specific trauma may produce swelling which mechanically restrains tendon gliding. Subsequent thumb and wrist motions perpetuate pain and swelling.

3. Rheumatoid Arthritis prior to clinical onset or aggravation

One of the most common manifestations of Rheumatoid Arthritis of the hands is tenosynovitis in the tendon sheaths.

There must be active Rheumatoid Arthritis in the area of the distal radius for Rheumatoid Arthritis to cause or aggravate De Quervain Disease.

4. Inability to obtain appropriate clinical management

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- B. MEDICAL CONDITIONS WHICH ARE TO BE INCLUDED IN ENTITLEMENT/ASSESSMENT**

 - C. COMMON MEDICAL CONDITIONS WHICH MAY RESULT IN WHOLE OR IN PART FROM DE QUERVAIN DISEASE AND/OR ITS TREATMENT**

REFERENCES FOR DE QUERVAIN DISEASE

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