



## Massage Self-Care Corner

# Spotlight on Palmaris Longus

By **Judith DeLany**

The forearms and hands are the most important tools used in massage therapy. Preventing the development of career-ending conditions, such as Dupuytren's contracture, is a critical, yet often overlooked, step in self-care. When these muscles are neglected, consequences can range from nagging, aching arms, wrists or hands, to debilitating chronic pain.

Palmaris longus (PL) is a great example. This long (extrinsic) muscle courses from the medial epicondyle to attach broadly onto the palmar fascia which, in turn, spans into five directions, each of which projects toward a digit (ray). Its tendon is the only anterior forearm tendon to remain outside the flexor retinaculum at the wrist, making it distinctly visible when the wrist is flexed and the hand is curled upon itself.

Although the muscle belly may be absent on either arm or both, its palmar fascia is always present.<sup>1</sup> Its tendon may be more easily distinguished from the carpal (wrist) flexors by having the person place all five digital pads together, with the metacarpophalangeal joints flexed and the fingers and thumb extended (as if picking up a marble with all five digits). It may be necessary to simultaneously flex the wrist to make the tendon more distinct.

PL may be strained with loaded wrist flexion. The associated palmar fascia may be injured with the use of hand tools that can inflict trauma, such as when pounding on an ice pick, sculpting tool, or kitchen chopper, when twisting with pressure while using trowels in gardening, or when applying pressure with hand-held tools in massage therapy. Associated trauma can result in shortening of the connective tissue of the palm, similar to that seen in Dupuytren's contracture.

### Indicators for Treatment

Indicators for treatment of PL include: diagnosis of Dupuytren's contracture (see below); prickling sensation to the palm and anterior forearm (from trigger points); and tenderness in the palm, especially when working with hand-held tools.

Dupuytren's contracture is a hand deformity in which the palmar fascia contracts and thickens over time. The characteristics of Dupuytren's contracture<sup>2</sup> include:

Stage 1: A nodule of the palmar fascia that does not include the skin, with no change in the fascia.

Stage 2: A nodule in the fascia with involvement of the skin.

Stage 3: Same as stage 2 but with a flexion contracture of one or more fingers.

Stage 4: Same as stage 3, plus tendon and joint contractures.

Due to slow progression, observation and minimal or no treatment are often indicated initially for Dupuytren's contracture. A non-surgical intervention of injection coupled with forceful finger extension may be indicated.<sup>3</sup> Surgical excision of the fascia may be necessary and the hand may lose up to 25 percent of its grip power as a result.

Heredity may be a factor in Dupuytren's contracture, however, it is important to rule out trigger points as part of the problem.<sup>4</sup> Trigger points in this muscle may simulate Dupuytren's contracture and may even produce flexion contracture of the fingers. A distinguishing feature is that while Dupuytren's may cause a painful palm, only trigger points in PL produce the prickling sensation. Simons et al. describe a spray and stretch technique that covers the anterior forearm and hand that is often beneficial to this condition. NMT hand and forearm protocols are also effective. (For hand and forearm treatment protocols and illustrations of the regional anatomy, visit [www.nmtcenter.com/articles](http://www.nmtcenter.com/articles).)

The value of contrast hydrotherapies should not be underestimated, especially

when followed with stretching. Not only is this therapy readily available and very inexpensive, it can easily be self-applied, especially to the forearms and hands.

Prevention of injury is the foremost key to maintaining healthy hands. Particular care should be exercised when using tools that can damage the palmar fascia. Work gloves, alternative tools and employed help should be considered for jobs that might place stress on the tissues of the palm.



### References

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3. Cailliet R. *Hand Pain and Impairment, 4th ed.* Philadelphia: FA Davis, 1994.
4. Simons D, Travell J, Simons L. *Myofascial Pain and Dysfunction: The Trigger Point Manual, Vol 1: The Upper Half of Body, 2nd ed.* Baltimore: Williams & Wilkins, 1999.

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