Wrist curls using both the pronated and supinated grips are very common exercises performed as a part of many strength training programs where wrist and forearm development is needed specifically.

The wrist joint consists of the articulations between the distal end of the radius, navicular, and triangular carpal bones. From a bone standpoint, the wrist is a very stable structure. The three carpal bones are received into the radius in a deep ovoid structure. This articulation allows flexion, extension, radial flexion and ulnar flexion. The latter two movements can be considered abduction and adduction types of movements. Circumduction is thus possible when considering the wrist joint.

Ligaments surrounding the joint make the wrist very stable. The anterior, posterior, lateral and medial ligaments provide this support for the wrist. Anterior ligament support is obtained via the volar radio-carpal ligament. Posterior support is maintained by the dorsal radio-carpal ligament. The ulnar collateral ligament supports medially and the radio-carpal ligament takes care of lateral support.

There is plenty of muscular support in the wrist joint. There are fifteen extrinsic muscles of the hand located on the various aspects of the wrist joint. The tendons of the muscles are included where they cross the joint on the way to their distal attachments.

When examining the supinated wrist curl where flexion takes place the proximal attachments of the wrist flexor are located on or near the medial epicondyle of the humerus. These muscles form the contour of the anterior medial aspect of the forearm. The wrist flexors against resistance are the flexor carpi ulnaris, palmaris longus, flexor digitorum superficialis, flexor digitorum profundus, flexor pollicis longus, and flexor carpi radialis. The contralateral muscles are posterior.

The guiding muscles for flexion and extension at the wrist are located medially and laterally. They eliminate ulnar and radial flexions during wrist flexion. The medial guiders are the flexor carpi ulnaris.
and extensor carpi ulnaris. Laterally the guiders are the flexor carpi radialis, abductor pollicis longus, extensor pollicis brevis, extensor carpi radialis longus, and extensor carpi radialis brevis.

The pronated flexion style of the wrist curl has its proximal attachments of many of the wrist extensors located on or near the lateral epicondyle of the humerus. These muscles form the contour of the posterior, lateral aspect of the forearm. The posterior muscle most involved with wrist extension against resistance are extensor carpi ulnaris, extensor digiti minimi, extensor digitorum, extensor indicis, extensor pollicis longus, extensor carpi radialis brevis, and extensor carpi radialis longus.

Development of all of these muscles is relative to the style and type of weight program being used (i.e. sets, reps, weight). The two types of wrist curls described could be an important part of many strength training programs.

---

**How to put muscle into your weight lifting program without straining your budget.**

When it comes time to decide on which weight equipment to buy for your school, look to Olympic. We have the most complete line of weight equipment available. Everything from dumbbells to a full line of selectorized and plate loaded equipment. All at prices that won't cost you an arm and a leg.

Send for our free catalog.

**OLYMPIC**

OLYMPIC ENTERPRISES
1333 N. 22nd Ave. Phoenix, Arizona 85009