

# Joint Anatomy and Actions

A Short Lesson in the Kinesiology of Exercise

## The Radio-Ulnar Joint

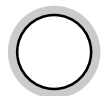
The radio-ulnar joint is the combination of three joints: The proximal (elbow), middle, and distal (wrist) radio-ulnar joints. The proximal radio-ulnar joint is a pivot joint between the head of the radius and the radial notch of the ulna. The middle radio-ulnar joint is a slightly movable ligamentous joint. The forearm bones are connected by a ligamentous sheath, the interosseous membrane. This membrane prevents undo separation of the two bones, and it acts to transmit and cushion the longitudinal forces of weight bearing. For example, when the arm is in a supporting position, the body weight is transferred from the humerus primarily to the ulna, and the force of resistance from the hand is transferred primarily to the radius at the wrist joint. The distal radio-ulnar joint is a pivot joint between the distal head of the ulna and the ulna notch of the radius. In pronation and supination, the end of the radius around the head of the ulna and rotates on its long axis.

### Basic Movements in the Radio-Ulnar Joint



#### Pronation

Rotating the forearm so that the hand is turned palm down.



#### Supination

Rotating the forearm so that the hand is turned palm up.

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