

New user interface – preview

ANATOMY OF THE SHOULDER

3D Views

Shoulder

Biceps brachii: short head

Proximally, **biceps brachii** has two heads, **long** and **short**. The two heads unite in the lower part of the arm.

Proximal Attachment
The tip of the coracoid process.

Nerve Supply
Musculocutaneous nerve (C5,6).

Actions
Biceps is a **powerful supinator**, as well as being a **flexor of the elbow**, particularly if the forearm is supinated. In addition, it **acts to some extent as a flexor of the shoulder**.

Pathology

Biceps Tenosynovitis and Related Pathology
Biceps tenosynovitis, or inflammation of the biceps tendon, is most frequently a degenerative process, with inflammation occurring in the bicipital groove. When located in the intraarticular or extraarticular portions of the tendon, it may be a result of trauma. MR images frequently display increased fluid, nonspecific for inflammation, in the bicipital synovial sheath. Since communication between the joint capsule and the biceps tendon synovial sheath is normal, intrinsic hyperintensity or tendon thickening may be a more specific finding for biceps tendon inflammation. The Yergason test, in which forced supination produces pain in the biceps groove, is helpful in distinguishing biceps tendinitis from rotator cuff impingements. The biceps tendon lies within its groove, which makes it difficult to palpate; in fact, it is impossible to palpate the tendon in its intracapsular, intraarticular portion.

Biceps tenodesis in the bicipital groove is the treatment of choice in biceps tendinitis. Because the long head of the biceps tendon (through the biceps labral complex) is known to contribute to both superior and anterior stability of the glenohumeral, there is some concern that this fixation may

Structures in view

New user interface – quick start guide

The screenshot displays the 'ANATOMY OF THE SHOULDER' interface. On the left is a sidebar with navigation options: 'Browse 3D Gallery', 'Relate the 3D anatomy to MRI scans', 'Browse slides', 'View movies and animations', 'Browse text articles and their associated visuals', 'Browse all content alphabetically', 'Adjust the settings', 'Save favorite views', 'Share content', and 'Save images, text and movies'. The main area shows a 3D model of the shoulder with callouts: 'Move back and forward' (horizontal arrows), 'Swipe to rotate' (hand and mouse icons), and 'Select a structure to highlight and display text' (pointing to a muscle). The right panel shows text for 'Biceps brachii: short head', including 'Proximal Attachment', 'Nerve Supply', 'Actions', and 'Pathology'. The bottom control bar includes: 'Layer up or down through the anatomy' (stack icon), 'Rotate the 3D model' (rotation arrows), 'Zoom in and out' (magnifying glass), 'Flip the image' (flip icon), and 'List 3D view/image contents' (list icon).

New user interface – comparison

Left Interface (Traditional Desktop):

- 3D View:** Shows a 3D model of the shoulder and upper arm.
- Text Panel:** Contains text for "Biceps brachii: short head", "Proximal Attachment", "Nerve Supply", "Actions", "Pathology", and "Biceps Tenosynovitis and Related Pathology".
- 3D anatomy view list:** A hierarchical list of anatomical structures including "Thorax and arm", "Thorax and shoulder", "Shoulder", "Rotator cuff", "Shoulder girdle", "Shoulder joint: coronal section", "Shoulder joint: sagittal section", "Axilla", "Arm and elbow", "Surface features", "Bone regions", and "Nervous system".

Right Interface (Modern Web-based):

- Navigation Sidebar:** A vertical sidebar with icons for "3D Views", "Thorax and arm", "Thorax and shoulder", "Shoulder", "Rotator cuff", "Shoulder girdle", "Shoulder joint: coronal section", "Shoulder joint: sagittal section", "Axilla", "Arm and elbow", "Surface features", "Bone regions", and "Nervous system".
- 3D View:** Shows a 3D model of the shoulder and upper arm, similar to the left interface.
- Text Panel:** Contains text for "Biceps brachii: short head", "Proximal Attachment", "Nerve Supply", "Actions", "Pathology", and "Biceps Tenosynovitis and Related Pathology".

New user interface – flexible work space

