G25: Brachium
Brachial Plexus

Randy
Travis
Drinks
Cold
Beer
What muscle(s) enable her to do the following exercise?
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A 77 year old male patient fell off a ladder and sustained muscle damage. What of the following actions would he have the most difficulty doing if he lost the ability of the muscle outlined in green in this MRI?
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B.
If each muscle outlined in the following MRI were effected by the fall, identify which spinal nerves were damaged?

A) C4, C5  
B) C5, C6  
C) C6, C7  
D) C7, C8  
E) C8, T1
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B) C5, C6
C) C6, C7
D) C7, C8
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Jane Doe wakes up the morning after a hard work-out at the gym. Her muscles are very sore. She goes to her medicine cabinet and takes an aspirin in the hopes that it will relieve some of the inflammation. Trace the route of the aspirin from her mouth to the following muscles:
Jane Doe wakes up the morning after a hard work-out at the gym. Her muscles are very sore. She goes to her medicine cabinet and takes an aspirin in the hopes that it will relieve some of the inflammation. Trace the route of the aspirin from her mouth to the following muscles:

- Trapezius muscle
- Latissimus dorsi muscle
- Deltoid muscle
- Triceps brachii muscle
Trapezius m.

1. Thyrocervical trunk
2. Inferior thyroid a.
3. Transverse cervical a.

Superficial transverse cervical a.

Dorsal scapular a.
(Deep transverse cervical a.)

Anterior scalene m.

Subclavian a.

Aorta

Rib 1

External occipital protuberance

Superior nuchal line

Mastoid process

Ligamentum nuchae

Levator scapulae

Accessory nerve [X]

Clavicle

Line of attachment of trapezius

Acromion

Line of attachment of deltoid

Spine of scapula

Axillary nerve

Posterior circumflex humeral artery

Deltoid tuberosity

of humerus

Rhomboid minor

Rhomboid major

Spinous processes and interspinous ligaments to T11

GAFS Fig. 7.35
Axillary a. (2)

Subclavian a.

Thoracoacromial a.
- Acromial branch
- Clavicular branch
- Deltoid branch
- Pectoral branch

Brachial a.

Lateral thoracic a.
Deltoid m.
Latissimus dorsi m.
Deltoid m.
Latissimus dorsi m.

Posterior humeral circumflex a.
Deltoid m. (cut)
Axillary n.
Lateral head of triceps brachii m.
Teres minor and major mm.
Long head of triceps brachii m.
Deltoid m.
Latissimus dorsi m.

Circumflex scapular a.
Subscapular a.
Lateral head of triceps brachii m.
Teres minor and major mm.
Latissimus dorsi m.
Long head of triceps brachii m.
A 16 year old male injured his right shoulder in a motorbike accident. Upon initial examination, pulses in the radial and ulnar arteries were palpable. Two days later he began to feel weakness and numbness in part of his right arm. Angiography showed a nearly complete occlusion of the axillary artery and an MRI showed a 4cm x 5cm hematoma compressing the brachial plexus. Which two muscles directly bordered this hematoma? (J Brachial Plex Peripher Nerve Inj. 2008 Mar 28;3:9.)

A. infraspinatus and pectoralis major
B. pectoralis minor and subscapularis
C. supraspinatus and trapezius
D. teres major and teres minor
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The hematoma was evacuated surgically. Obviously this evacuation would necessitate extreme caution. If the posterior cord of the brachial plexus were damaged during surgery, identify an area of the upper limb where motor innervation would be affected?

A. anterior compartment of the forearm
B. anterior compartment of the upper arm
C. intrinsic muscles of the hand
D. muscles of the shoulder
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C. intrinsic muscles of the hand  
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Glenohumeral Joint

- **Glenoid cavity**
- **Humeral head**
Glenohumeral Joint

Humeral head

Glenoid cavity

Glenoid labrum
Glenohumeral Joint

- Humeral head
- Glenoid cavity
- Glenoid labrum

Glenohumeral ligaments
Upper Limb Compartmentalization

Arm

Forearm
Upper Limb Compartmentalization

Arm

- A: Flexion
- N: Musculocutaneous

Forearm

- A: Extension
- N: Radial
Upper Limb Compartmentalization

Arm
- A: Flexion
- N: Musculocutaneous
- A: Extension
- N: Radial

Forearm
- A: Flexion
- N: Median and Ulnar
- A: Extension
- N: Radial
THANK-YOU