Match the action described with the muscle given below: extends and medially rotates the humerus.

A. Serratus posterior superior
B. Pectoralis major
C. Pectoralis minor
D. Latissimus dorsi
E. Rhomboids
Answer = D

Three weeks after a shoulder (glenohumeral) joint dislocation the following symptoms were observed: weakness in abduction of the arm and loss of the normal rounded contour of the shoulder. The most likely diagnosis is a lesion of the

a. upper and lower subscapular nerves.
b. radial nerve.
c. musculocutaneous nerve.
d. axillary nerve.
e. suprascapular nerve.
Answer = D

The palmar digital arteries of the hand are usually direct branches of the:

a. deep palmar arch
b. superficial palmar arch
c. deep radial artery
d. palmar carpal network
e. none of the above
Answer = D

Which structure (s) passes (pass) deep to the flexor retinaculum of the upper limb?

a. ulnar nerve
b. flexor carpi ulnaris
c. median nerve
d. only b and c
e. a, b, and c
Answer = c

Upon examination of a butcher who has a deep cut in the palm of his hand, you find that he is unable to adduct his thumb. Whichof the following nerves has most likely been severed?

a. recurrent motor branch of the median N
b. superficial branch of the ulnar
c. deep branch of the ulnar
d. superficial branch of the radial
e. deep branch of the radial
Answer = C

The synovial sheath of the flexor pollicis longus forms the:

a. dorsal bursa of the wrist
b. bursa of the second, third and fourth digits
c. radial bursa of the wrist
d. ulnar bursa of the wrist
e. mid palmar space
Answer = C

Injury to the median nerve in the mid-arm will result in COMPLETE loss of

A. flexion of the arm.
B. flexion of the forearm.
C. flexion of the hand at the wrist.
C. pronation ofthe forearm.
E. flexion of the metacarpophalangeal joints.
Answer = D

Select the muscle which will compensate in part for paralysis of the supinator muscle:

a. brachialis muscle
b. biceps brachii muscle
c. triceps brachii muscle
d. pronator teres muscle
e. pronator quandratus muscle
Answer = B

Of the muscles that act on the shoulder joint, the one that is usually considered to initiate abduction of the arm is the:

a. biceps brachii
b. deltoid
c. pectoralis major
d. supraspinatus
e. infraspinatus
Answer = D

The three muscles attached to the coracoid process of the scapula are the:

a. pectoralis major, long head of the biceps brachii and coracobrachialis
b. pectoralis minor, short head of the biceps brachii and coracobrachialis
c. teres minor, supraspinatus and latissimus dorsi
d. teres major, teres minor and anterior scalene
e. pectoralis minor, long head of the biceps brachii and coracobrachialis
Answer = B

Which of the following specific movements of the fingers will definitely distinguish between the actions of the flexor digitorum superficialis and flexor digitorum profundus muscles?

a. flexion at the metacarpo-phalangeal joints and extension of the interphalangeal joints
b. abduction and adduction of the fingers
c. flexion at the proximal and distal interphalangeal joints
d. flexion at the proximal interphalangeal joints and at metacarpophalangeal joints
e. none of the above
Answer = C

Atrophy of the muscles of the thenar eminence of the hand can indicate injury to the

a. deep branch of ulnar nerve.
b. musculocutaneous nerve.
c. palmar branch of median nerve.
d. recurrent branch of median nerve.
e. dorsal branch of ulnar nerve.
Answer = D

Arteries that contribute to the collateral circulation of the elbow include all of the following EXCEPT the:

a. superior ulnar collateral
b. interosseous recurrent
c. middle collateral
d. anterior interosseous
e. radial collateral
Answer = D

Forceful depression of the shoulder coupled with extreme and forceful flexion of the head and neck as might occur in a fall from some height, can result in a loss of abduction, lateral rotation, and flexion at the shoulder and pupination due to:

a. injury to the medial cord of the brachial plexus
b. interruption of C7 or the midle trunk of the brachial plexus
c. avulsion-separation of C5-C6 or upper trunk of the brachial plexus
d. injury to the posterior cord of the brachial plexus
e. avulsion-separation of C8-T1 or the lower trunk of the brachial plexus
Answer = C

While drawing blood from the median cubital vein, the underlying neurovascular structures are protected by the

A. brachioradialis muscle.
B. bicipital aponeurosis.
C. tendon of the biceps brachii muscle.
D. pronator teres muscle.
E. tendon of the brachalis muscle.
Answer = B

Loss of abduction and adduction of the fingers may be observed following injury of this nerve:

a. median
b. ulnar
c. radial
d. anterior interosseous
e. posterior interosseous
Answer = b

Which of the following is an extrinsci muscle of the thumb?

a. opponens pollicis
b. extensor pollicis brevis
c. adductor pollicis
d. flexor pollicis brevis
e. abductor pollicis
Answer = B

The nail bed of the index finger receives its nerve supply from:

A. digital branches of the ulnar nerve
B. digital branches of the median nerve
C. digital branches of the radial nerve
D. dorsal branches of the superficial radial nerve
E. none of the above
Answer = B

Collateral circulation around the shoulder joint would involve all of the following EXCEPT:

A. transverse cervical artery
B. dorsal scapular artery
C. suprascapular artery
D. circumflex scapular artery
E. lateral thoracic artery
Answer = E

All of these muscles will rotate the arm medially EXCEPT the:

A. infraspinatus
B. latissimus dorsi
C. pectoralis major
D. subscapularis
E. teres major
Answer = A

The primary blood supply to the deep (outcropping) muscles of the posterior compartment of the forearm is the

A. deep brachial artery.
B. radial artery.
C. ulnar artery.
D. anterior interosseus artery.
E. posterior interosseus artery.
Answer = E

In a patient who suffered a stab wound that penetrated the proximal part of the brachioradialis muscle, the physician tested for loss of cutaneous sensation on the

A. palmar surface of the little finger.
B. palmar surface of the index finger.
C. palmar surface of the thumb.
D. medial area of the dorsum of the hand.
E. lateral area of the dorsum of the hand.
Answer = E

The musculocutaneous nerve:

A. arises from the medial cord of the brachial plexus.
B. supplies the elbow joing.
C. is accompanied by the profunda brachii artery.
D. terminates as the posterior antebrachial cutaneous nerve.
E. supplies the brachioradialis muscle.
Answer = B

Which of the following groups of muscles are attached to the greater tubercle of the humerus?

A. supraspinatus, infraspinatus, subscapularis
B. teres major, teres minor and pectoralis minor
C. supraspinatus, teres minor and infraspinatus
D. infraspinatus, subscapularis and teres major
E. deltoid, supraspinatus and teres minor
Answer = C

Muscles innervated by the median nerve are:

A. flexor capri ulnaris, pronator teres, supinator
B. lumbricales one, two and three, and all dorsal interossei
C. palmar interossei, abductor digiti minimi, and adductor pollicis
D. flexor digiti minimi, abductor pollicis and opponens pollicis
E. abductor pollicis brevis, oppens pollicis and flexor pollicis brevis
Answer = E

The ulnar artery

A. is the lateral terminal branch of the brachial artery.
B. passes lateral to the pisiform at the wrist.
C. gives rise to the inferior ulnar collateral artery.
D. is the principal contributor to the deep palmar arch.
E. passes anterior to the pronator teres as it leaves the cubital fossa.
Answer = B

Severing the musculocutaneous nerve results in weakened forearm

A. flexion only.
B. extension only.
C. supination only.
D. flexion and extension.
E. flexion and supination.
Answer = E

Cutting the dorsal scapular nerve would most likely result in paralysis of the:

A. suprasinatus.
B. deltoid.
C. thomboids.
D. trapezius.
E. infraspinatus.
Answer = C

Muscles innervated by the radial nerve include the:

A. brachioradialis and supinator.
B. pronator teres and extensor carpi ulnaris.
C. palmaris longus and pronator quadratus.
D. triceps brachii and coracobrachialis.
E. brachialis and palmaris brevis.
Answer = A

Carpal tunnel syndrome may lead to:

A. loss of sensation on the most medial digit.
B. weakness or paralysis of the muscles in the hypothenar eminence.
C. weakness or paralysis of the dorsal interossei muscles.
D. weakness or paralysis of the palmaris brevis.
E. none of the above.
Answer = E

Your hitch-hiking days would be nummbered if you severed the following nerve:

A. axillary.
B. median.
C. medial pectoral
D. radial
E. ulnar
Answer = D

A severe shoulder separation (which involves the lateral end of the clavicle sliding onto the superior aspect of the acromion process) would most likely damage:

A. the sternoclavicular ligament.
B. the coracoclavicular ligament.
C. the costoclavicular ligsment.
D. the coracoacromial ligament.
E. the glenohumeral ligament.
Answer = B

An artery that travels with the radial nerve in the arm is the

A. circumflex scapular.
B. posterior humeral circumflex.
C. brachial.
D. profunda brachii.
E. superior ulnar collateral.
Answer = D

A muscle that adducts the hand at the wrist is the

A. adductor pollicis.
B. flexor carpi radialis.
C. extensor carpi radialis longus.
D. flexor carpi ulnaris.
E. opponens digiti minimi.
Answer = D

Each of the following muscles has an attachment to the scapula EXCEPT the

A. pectoralis minor.
B. serratus anterior.
C. biceps brachii.
D. triceps brachii.
E. pectoralis major.
Answer = E

What nerve supplies most ot the muscles that attach to the medial epicondyle of the humerus?

A. median
B. anterior interosseus
C. superficial radial
D. deep radial
E. ulnar
Answer = A

The serratus anterior muscle is innervated by the

A. lateral pectoral nerve.
B. upper and lower subscapular nerves.
C. suprascapular nerve.
D. long thoracic nerve.
E. thoracodorsal nerve.
Answer = D

A butcher sustained a superficial wound to the thenar eminence which impaired

A. spreading his fingers.
B. flexing his index finger.
C. adducting his thumb.
D. touching his little finger with the tumb.
E. extending his thumb.
Answer = D

The superficial palmar arch

A. is usually a direct continuation of the radial artery.
B. lies deep to the digital flexor tendons in the hand.
C. is more proximally located than the deep palmar arch.
D. has branches named common palmar digitals arteries.
E. gives rise to the princeps pollicis artery.
Answer = D

Injury to the deep ulnar nerve may cause paralysis of all of the following muscles EXCEPT the

A. dorsal interossei.
B. palmar interossei.
C. adductor pollicis.
D. abductor pollicis.
E. lumbricals 3 and 4.
Answer = D

You suspect a patient has a problem with the rotator cuff of the shoulder. What nerves supply the muscles that are affected?

A. radial, axillary, suprascapular, and upper subscapular
B. axillary, suprascapular, and upper and lower subscapulars
C. suprascapular, upper and lower subscapulars and radial
D. upper and lower subscapulars, radial, and axillary
E. axillary, dorsal scapular, and upper and lower subscapulars
Answer = B

The musculocutaneous nerve

A. contains fibers from ventral rami of C5-C8 and T1 of the brachial plexus.
B. is a terminal branch of the medial cord of the brachial plexus.
C. pierces the biceps brachii muscle of the arm.
D. innervates the coracobrachialis, biceps brachii, and part of the brachialis muscles of the arm.
E. has a sensory component to the medial part of the forearm.
Answer = D

A patient presents with cutaneous loss over distal part of the deltoid muscle. What nerve has been injured?

A. radial
B. median
C. axillary
D. musculocutaneous
E. lower supscapular
Answer = C

The extensor expansions receive fibers from all of the following EXCEPT the

A. dorsal interosseus muscles.
B. palmar interosseus muscles.
C. lumbrical muscles.
D. tendons of the flexor digitorum profunda.
E. tendons of the extensor digitorum.
Answer = D

A structure that passes through the carpal tunnel is the

A. ulnar nerve.
B. ulnar artery.
C. tendon of the palmaris longus muscle.
D. tendon of the flexor pollicis longus muscle.
E. tendon of the extensor pollicis longus muscle.
Answer = D

One function of the biceps brachii muscle is

A. extension.
B. adduction.
C. supination.
D. pronation.
E. circumduction.
Answer = C

The lesser tubercle of the humerus serves as an attachment for the

A. short head of biceps brachii muscle.
B. supraspinatus muscle.
C. teres major muscle.
D. subscapularis muscle.
E. coracobrachialis muscle.
Answer = D

The deep branch of the ulnar nerve is usually accompanied, for part of its course, by the

A. superficial palmar arterial arch.
B. deep palmar arterial arch.
C. dorsal carpal arterial arch.
D. dorsal venous arch.
E. palmar carpal arterial arch.
Answer = B

What is the arterial supply to the deep flexor muscles of the forearm?

A. radial
B. ulnar
C. anterior interosseus
D. posterior interosseus
E. brachial
Answer = C

The best test to distinguish an isolated injury to the deep branch of the ulnar nerve is

A. pricking the tip of the middle finger to test for loss of pain.
B. asking the patient to flex the index finger.
C. asking the patient to extend the index finger.
D. asking the patient to spread the fingers.
E. asking the patient to touch the tip of the little finger with the thumb.
Answer = D

Following injury to a nerve at the wrist, the thumb is laterally rotated and adducted. The hand has a flattened appearance and is "apelike." Which of the following nerves is damaged?

A. ulnar nerve
B. anterior interosseous nerve
C. deep radial nerve
D. musculocutaneous nerve
E. median nerve
Answer = E

All of the following statements about the interosseus membrane are correct EXCEPT that it

A. stabilizes the radioulnar articulations.
B. provides partial origin of the flexor pollicis longus.
C. is pierced by a branch of the radial nerve.
D. provides partial origin of the flexor digitorum profundus.
E. assists waiters in carrying heavy trays at shoulder height.
Answer = C

Muscles connecting the upper limb to the axial skeleton include each of the following EXCEPT the

A. teres major.
B. trapezius.
C. rhomboids.
D. levator scapulae.
E. latissimus dorsi.
Answer = A

Common palmar digital arteries are direct branches of the

A. superficial palmar arch.
B. deep palmar arch.
C. deep ulnar artery.
D. radial artery.
E. palmar carpal network.
Answer = A

Following extensive surgery involving the axilla, the medial border of the scapula moved away from the chest wall when pushing movements were performed. This indicates paralysis of the

A. rhomboideus major muscle.
B. serratus anterior muscle.
C. levator scapulae muscle.
D. subscapularis muscle.
E. teres major muscle.
Answer = B

The tendon of which of the following muscles is commonly damaged in older people and causes pain on abduction of the arm?

A. subscapularis
B. teres major
C. infraspinatus
D. supraspinatus
E. short head of biceps
Answer = D

Which muscle is a powerful supinator of the forearm?

A. biceps brachii
B. brachialis
C. coracobrachialis
D. triceps brachii
E. anconeus
Answer = A

Which muscle of the hand causes flexion at the distal interphalangeal joints of the medial four digits?

A. dorsal interossei
B. palmar interossei
C. lumbricals
D. flexor digitorum profundus
E. flexor digitorum superficialis
Answer = D

A young man falls on his hand and complains of severe pain in his wrist. He probably has fractured the most lateral carpal bone articulating with the radius. Identify this bone.

A. lunate
B. scaphoid
C. hamate
D. pisiform
E. triquetrum
Answer = B

Lateral (external) rotation at the glenohumeral joint occurs during full abduction of the arm. A blacksmith therefore needs a strong lateral rotator muscle such as the

A. subscapularis.
B. supraspinatus.
C. infraspinatus.
D. teres major.
E. latissimus dorsi.
Answer = C

The fingernail of the index finger requires removal because of an underlying abscess. The nerve that requires blocking by a local anesthetic agent is the

A. dorsal digital branch of the ulnar nerve.
B. dorsal digital branch of the superficial radial nerve.
C. palmar digital branch of the ulnar nerve.
D. palmar digital branch of the median nerve.
Answer = D

A medical student is asked to place an intravenous line in the cubital fossa of a patient. All of the following statements concerning the superficial veins of the upper limb are correct EXCEPT that

A. the median cubital vein links the cephalic and basilic veins in the vicinity of the elbow joint.
B. the basilic vein runs along the medial aspect of the forearm.
C. the cephalic vein originates on the radial side of the dorsum of the hand.
D. at the level of the axilla, the basilic vein is joined by the cephalic vein to form the axillary vein.
E. the median cubital vein is separated from the brachial artery by the bicipital aponeurosis.
Answer = D

In question 20, if the needle is inserted too deeply the patient might experience pain radiating down the anterior surface of the forearm and hand including the thumb, index and middle fingers. The nerve injured is most likely

A. a branch of the musculocutaneous nerve.
B. the medial antebrachial cutaneous nerve.
C. the median nerve.
D. the radial nerve.
E. the ulnar nerve.
Answer = C

Contraction of the palmar interosseous muscle between the fourth and fifth fingers results in

A. abduction of the fourth finger.
B. adduction of the fourth finger.
C. adduction of the fifth finger.
D. flexion of the interphalangeal joints of the fourth finger.
E. flexion of the interphalangeal joints of the fifth finger.
Answer = C

The rhomboid muscles receive motor innervation from the

A. third and fourth cervical nerves.
B. dorsal scapular nerve.
C. upper subscapular nerve.
D. thoracodorsal nerve.
E. axillary nerve.
Answer = B

All of these arteries participate in the anastomosis around the scapula EXCEPT the

A. transverse cervical.
B. suprascapular.
C. supreme thoracic.
D. circumflex scapular.
Answer = C

The pectoralis minor muscle

A. is innervated by the lateral pectoral nerve.
B. is an adductor and medial rotator of the humerus.
C. attaches to the acromion process of the scapula.
D. crosses the cords of the brachial plexus.
E. attaches to the sternum.
Answer = D

A player was struck on the posterior aspect of his arm with a hockey stick fracturing the mid humerus. He was unable to extend his hand and complained of a loss of sensation in a small area on the dorsum of his hand. Which nerve was damaged?

A. Musculocutaneous
B. Median
C. Ulnar
D Radial
E. Axillary
Answer = D

A nerve passing posterior to the medial epicondyle of the humerus was severely damaged in a fracture/dislocation of the elbow joint. Clinical findings would mostlikely include all of the following EXCEPT

A. paralysis of the medial part of the flexor digitorum profundus muscle.
B. loss of sensation of the medial side of the hand and little finger.
C. lateral deviation of the hand when the wrist is flexed.
D. paralysis of the flexor carpi ulnaris muscle.
E. paralysis of the palmaris longus muscle.
Answer = E

While carrying a heavy suitcase, downward displacement of the humerus at the glenohumeral joint is prevented by the

A. inferior glenohumeral ligament.
B. coracohumeral ligament.
C. latssimus dorsi muscle.
D. supraspinatus muscle.
E. coracoacromial ligament.
Answer = 1,2,3

All of the following structures pass superficial to the carpal tunnel EXCEPT the

A. palmaris longus tendon.
B. palmar brancyh of median nerve.
C. flexor pollicis longus tendon.
D. ulnar artery.
Answer = C

All of the following muscles laterally rotate the humerus EXCEPT the

A. teres major.
B. teres minor.
C. infraspinatus.
D. posterior portion of the deltoid.
Answer = A

A muscle which both flexes and abducts the hand is the

A. flexor carpi ulnaris.
B. flexor carpi radialis.
C. flexor pollicis longus.
D. flexor digitorum superficialis.
E. flexor digitorum profundus.
Answer = B

George Burns enters your office and complains of being unable to grasp a cigar between his 2nd and 3rd digits. Which nerve may be damaged?

A. The dorasl branch of the ulnar nerve.
B. The palmar digital branches of the median nerve.
C. The superficial branch of the ulnar nerve.
D. The deep branch of the ulnar nerve.
E. The recurrent branch of the median nerve.
Answer = D

The lumbrical muscles

A. arise from the tendons of the flexor digitorum superficialis.
B. flex the interphalangeal joints.
C. are all innervated by the ulnar nerve.
D. extend the metacarpophalangeal joints.
E. inserts into the extensor expansions.
Answer = E

At the shoulder joint

A. dislocation of the humerus usually occurs superiorly.
B. a synovial membrane covers the cartilage of the head of the humerus.
C. there is a thickening of the capsule called the coracoacromial ligament.
D. there is frequently an outpocketing of synovial membrane that extends under subscapularis muscle.
E. the glenohumeral ligaments strengthen the posterior portion of the capsule.
Answer = D

Upon examination of a butcher who has a deep cut in the palm of his hand, you find that he is unable to adduct his thumb. The nerve which has been severed is the

A. recurrent motor branch of the median nerve.
B. superficial ulnar.
C. deep ulnar.
D. superficial radial.
E. deep radial.
Answer = C

The medial cord of the brachial plexus

A. usually contains fibers from the ventral rami of cervical nerves C5-C6.
B. has a branch that supplies the coracobrachialis muscle.
C. contains fibers that supply the skin of the medial side of the forearm.
D. is formed by the junction of the anterior divisions of the upper and middle trunks.
E. has a branch that passes through the quadrangular space.
Answer = C

All of the following muscles rotate the arm medially EXCEPT the

A. subscapularis.
B. infraspinatus.
C. pectoralis major.
D. latissimus dorsi.
E. teres major.
Answer = B

Sensory fibers that supply receptors in the skin on the dorsum of the thumb traverse the

A. recurrent branch of the median nerve.
B. ventral primary ramus of spinal nerve C8.
C. ventral root of spinal nerve C8.
D. superior (upper) trunk of the brachial plexus.
E. medial cord of the brachial plexus.
Answer = D

If the median nerve is severed in the upper cubital fossa, all of the following functions are lost or weakened EXCEPT

A. pronation of the forearm.
B. opposition of the thumb.
C. adduction of the hand.
D. sensation over the lateral three and one half digits on the palmar side.
E. flexion at the wrist.
Answer = C

A patient suffered an arm laceration that appeared to injure the nerve supply to a portion of the flexor digitorum profundus muscle. Which of the of the following movements can be used to specifically test for the function of this muscle?

A. flexion at the metacarpophalangeal joint
B. abduction of a finger
C. flexion at the distal interphalangeal joint
D. flexion at the proximal interphlangeal joint
E. adduction of a finger
Answer = C

In the upper extremity, a pulse may be palpated in all of the following locations EXCEPT the

A. medial side of the tendon of the biceps brachii.
B. radial side of the tendon of the flexor carpi radialis muscle.
C. space between the tendons of the extensor pollicis longus and brevis muscles.
D. radial side of the tendon of the flexor carpi ulnaris.
E. space between the tendons of the palmaris longus and the flexor carpi radialis muscles.
Answer = E

Which of the following specific movements of the fingers will definitely distinguish between the actions of the flexor digitorum superficialis and flexor digitorum profundus muscles?

A. Flexion at the metacarpophalangeal joints
B. Abduction and adduction of the fingers
C. Flexion at the distal interphalangeal joints
D. Flexion at the proximal interphalangeal joints and at the metacarpophalangeal joints
E. There is no action which distinguishes between these two muscles
Answer = C

Branches of the axillary artery include all of the following EXCEPT the

A. subscapular artery.
B. thoracoacromial artery.
C. supreme (highest) thoracic artery.
D. lateral thoracic artery.
E. internal thoracic artery.
Answer = E

If a patient has difficulty abducting the arm AND extending the elbow and wrist joints, the most likely damage is to the

A. suprascapular nerve.
B. radial nerve.
C. posterior cord of the brachial plexus.
D. axillary nerve.
E. lateral cord of the brachial plexus.
Answer = C

The deep palmar arterial arch lies between

A. the tendons of the flexor digitorum superficialis and the flexor digitorum profundus muscles.
B. the dorsal and palmar interossei muscles.
C. the long flexor tendons and the interossei muscles.
D. the long flexor tendons and the palmar aponeurosis.
E. the lumbricales and the long flexor tendons.
Answer = C

The subacromial bursa separates the acromion from the tendon of the

A. teres major muscle.
B. teres minor muscle.
C. subscapularis muscle.
D. supraspinatus muscle.
E. infraspinatus muscle.
Answer = D

The axillary nerve leaves the axilla by passing through the quadrangular space accompanied by the

A. radial nerve.
B. profunda brachii artery.
C. posterior humeral circumflex artery.
D. axillary artery.
E. circumflex scapular artery.
Answer = C

An adductor of the hand at the wrist is the

A. brachioradialis muscle.
B. flexor carpi radialis muscle.
C. flexor carpi ulnaris muscle.
D. flexor digitorum superficialis muscle.
E. extensor carpi radialis brevis muscle.
Answer = C

An inability to adduct the fingers can be caused by injury to the

A. median nerve.
B. musculocutaneous nerve.
C. radial nerve.
D. ulnar nerve.
E. anterior interosseous nerve.
Answer = D

Damage to the lateral cord of the brachial plexus can affect the function of all of the following muscles EXCEPT the

A. coracobrachialis.
B. pectoralis major.
C. brachialis.
D. subscapularis.
E. pronator teres.
Answer = D

A lesion of the median nerve in the hand will result in

A. a loss of the cutaneous sensation on the palmar aspect of the little finger.
B. a loss of the ability to abduct the digits.
C. a loss of opposition of the thumb.
D. claw hand.
E. Dupuytren's contracture.
Answer = C

A structure lying directly medial to the biceps brachii tendon in the cubital fossa is the

A. median nerve.
B. radial nerve.
C. ulnar nerve.
D. brachial artery.
E. basilic vein.
Answer = D

The musculocutaneous nerve

A. gives rise to the medial antebrachial cutaneous nerve.
B. innervates the brachialis muscle.
C. pierces the biceps brachii muscle.
D. descends in the arm in close association with the brachial artery.
E. innervates the brachioradialis muscle.
Answer = B

All of the following muscles contribute to the extensor expansion (hood) of the digits EXCEPT

A. the extensor indicis muscle.
B. the extensor digitorum muscle.
C. the abductor digiti minimi.
D. an interosseous muscle.
E. a lumbrical muscle.
Answer = C

The median nerve has been severed just proximal to the flexor retinaculum. The movement of the thumb most seriously affected would be

A. flexion.
B. extension.
C. abduction.
D. adduction.
E. opposition.
Answer = E

The dermatome at the ball of the thumb is

A. C5
B. C6
D. C8
E. T1
Answer = B

Two (2) muscles that contribute to the musculotendinous (rotator) cuff of the shoulder joint posteriorly are the

A. subcapularis and teres minor muscles.
B. supraspinatus and subscapularis muscles.
C. infraspinatus and teres minor muscles.
D. subscapularis and infraspinatus muscles.
Answer = C

A deep knife wound caused a complete severance of the median nerve in the arm near the axilla. The most affected movement will be

A. flexion of elbow joint.
B. abduction of digits.
C. adduction of the thumb.
D. flexion of the interphalangeal joint of the thumb.
E. supination of the hand.
Answer = D

The final drainage of the axillary lymph nodes is through the

A. pectoral group.
B. central group.
C. apical group.
D. lateral group.
E. subscapular (posterior) group.
Answer = C

Fracture of the humerus at the surgical neck can damage all the following structures EXCEPT the

A. posterior circumflex humeral artery.
B. anterior circumflex humeral artery.
C. axillary nerve.
D. radial nerve.
Answer = D

Complete inability to abduct the arm results from

A. the atrophy of the deltoid muscle.
B. a rupture of the tendon of the long head of the biceps.
C. a paralysis of the supraspinatus muscle.
D. the severing of the suprascapular and axillary nerves.
E. the severing of the long thoracic and spinal accessory nerves.
Answer = D

Branches of the ulnar nerve usually innervate all of the following EXCEPT

A. the skin on the palmar side of the fifth finger and adjacent half of the fourth finger.
B. all the interossei muscles.
C. the flexor digiti minimi muscle.
D. the abductor pollicis muscle.
E. adductor poollicis muscle.
Answer = D

If the median nerve is severed in the cubital fossa, all of the following movements would be lost of weakened EXCEPT

A. pronation of the forearm.
B. opposition of the thumb.
C. abduction of the thumb.
D. flexion of the index finger.
E. adduction of the hand.
Answer = E

When asked to maximally abduct the left upper limb you observe that the patient leans and dips her shoulder slightly to the left when initiating this action but does not repeat this action when abducting the right limb. Which of the following muscles do you suspect is most likely impaired?

A. The left serratus anterior
B. The left deltoid
C. The left trapezius
D. The left supraspinatus
E. The left lavtor scapulae
Answer = D

You are examining a patient who exhibits pain and significant weakness when attempting to medially rotate the arm. You suspect an injury to the

A. supraspinatus muscle.
B. infraspinatus muscle.
C. subscapularis muscle.
D. teres minor muscle.
E. coracobrachialis muscle.
Answer = C

You are examining a patient who complains of pain in the region of the lateral epicondyle of the humerus when extending the wrist against resistance. The muscle that you suspect to be the least likely cause of his pain is the

A. extensor digitorum muscle.
B. extensor carpi radialis brevis muscle.
C. extensor carpi ulnaris muscle.
D. extensor digiti minimi muscle.
E. extensor indicis muscle.
Answer = E

The carpal tunnel syndrome is the result of compression of structures within the carpal tunner at the wrist. Consequently, the examination of an affected patient often reveals

A. atrophy of the interosseus muscles of the hand.
B. loss of sensation on the skin of the base of the thumb.
C. loss of sensation of the skin of the little finger.
D. weakness of the muscles of the thenar eminence.
E. loss of the ability to adduct the thumb.
Answer = D

A patient suffered an arm laceration that appeared to injure the nerve supply to a portion of the flexor digitorum profundus muscle. A movement used to specifically test for the function of this muscle is

A. flexion at the metacarpophalangeal joint.
B. abduction of a finger.
C. flexion at the distal interphalangeal joint.
D. flexion at the proximal interphalangeal joint.
E. adduction of a finger.
Answer = C

An infection in the synovial sheath of the flexor tendons of the little finger often spreads to the bursa of the

A. middle finger.
B. index finger.
C. ring finger.
D. thumb.
Answer = D

Following an injury to the radial nerve in the mid-humerus, a muscle which will compensate for paralysis of the supinator muscle is the

A. brachialis.
B. biceps brachii.
C. triceps brachii.
D. pronator teres.
E. pronator quadratus.
Answer = B

A young man falls on his hand. In the emergency room, he complains of severe pain in his wrist. An x-ray reveals a fracture of the most lateral carpal bone that articulates with the radius, which is the

A. scaphoid.
B. pisiform.
C. triquetrum.
D. hamate.
E. lunate.
Answer = A

During surgery for breast cancer, a surgeon found that cells within an axillary lymph node invaded a muscle of the axillary wall, which could have been any of the following muscles EXCEPT the

A. pectoralis major.
B. biceps brachii.
C. latissimus dorsi.
D. pectoralis minor.
E. serratus anterior.
Answer = B

During the removal of a cyst located between the flexor digitorum superficialis and the flexor digitorum profundus muscles, a structure observed between these two muscles was the

A. median nerve.
B. redial artery.
C. anterior interosseus nerve.
D. posterior interosseus nerve.
E. superficial radial nerve.
Answer = A

A 61-year-old male postman had a fracture of the surgical neck of the humerus following a fall during a confrontation with a neighborhood dog. Of the following, the structure LEAST likely to be injured is the

A. posterior circumflex humeral artery.
B. anterior circumflex humeral artery.
C. axillary nerve.
D. radial nerve.
Answer = D

A recent President suffered from Dupyren's contracture. A characteristic observation of his upper extremity would reveal

A. an inability to fully extend his elbos.
B. a chronically pronated forearm.
C. an inability to fully extend some digits.
D. an inability to oppose his thumb to his index finger.
E. a hyperextended wrist.
Answer = C

A hunter recently returned from a two-week trip into the Sierra Mountains. He complained of redness, inflammation and soreness in the middle of his wrist (carpal tunnel). He reported that a rusty nail had pierced the tip of one of his digits at the beginning of the trip. The digit that was most likely pierced was the

A. 2nd.
B. 3rd.
C. 4th.
D. 5th.
Answer = D

A 67-year-old male suffered ankylosing spondylitis with calcification and narrowing of the intervertebral foramen between C8 and T1. This condition eroded and severed the dorsal root of C8. The resulting anesthesia could be demonstrated

A. at the upper surface of the shoulder.
B. at the tip of the little finger.
C. in the axilla.
D. at the tip of the tumb.
E. in the middle of the palm.
Answer = B

A 93-year-old male has a tumor of the left coracoid process that completely compressed the axillary artery. During an examination of this patient, you observe a normal left radial arterial pulse. you assume that in this patient blood reaches the radial artery via connections that include those between the

A. thoracoacromial and supreme thoracic arteries.
B. subscapular and posterior humeral circumflex arteries.
C. suprascapular and subscapular arteries.
D. subscapular and deep brachial arteries.
E. anterior and posterior humeral circumflex arteries.
Answer = C

A 16-year-old male is brought to the ER with severe blood loss from a deep hand wound. You suspect that the superficial palmar arterial arch has been severed. To "tie off" (clamp, occlude) the two cut ends of the severed arch, you decrease blood flow to the hand temporarily and then look for the cut vessel in the tissue

A. in the subcutaneous space of the palm.
B. immediately dorsal tothe interosseus muscles.
C. immediately ventral to the interosseus muscles.
D. in the region between the superficial flexor tendons and the palmar aponeurosis.
E. in the cleft between the two heads of the adductor pollicis muscle.
Answer = D

You are preparing to lance an abscess of the tip of the right third digit. In your review of pertinent anatomy, you remember that the blood supply to this area usually comes from digital branches of the

A. deep palmar arterial arch.
B. superficial palmar arterial arch.
C. dorsal arterial arch.
D. palmar carpal network.
E. dorsal metacarpal arteries.
Answer = B

A 37-year-old female secretary has carpal tunnel syndrome. Her symptoms could include

A. loss of sensation to the skin of the little finger.
B. weakness on attempts to compress a marble between the thumb and little finger.
C. decreased strength during extension of the thumb.
D. atrophy of the interosseus muscles of the hand.
E. loss of sensation to the skin covering the dorsum of the hand.
Answer = B

You wish to cannulate portions of the cephalic vein. All of the following statements about its course are correct EXCEPT that it

A. begins as a dorsal venous network in the hand.
B. empties into the axillary vein.
C. lies in the deltopectoral groove.
D. ascends on the medial side of the arm.
E. communicates with the basilic vein via the median cubital vein.
Answer = D

Chronic traction of the ulnar nerve at the elbow may be relieved by medial condyle osteotomy, where by the condyle is cut without disturbing the muscular attachments. The nerve is then relocated anterior to the humerus and the medial epicondyle is reattached. Which of the following muscles originates from the medial epicondyle and is, therefore, directly involved in medial condyle osteotomy?

A. Brachioradialis
B. Exensor carpi ulnaris
C. Flexor carpi radialis
D. Flexor pollicis longus
E. Supinator
Answer = C

At the wrist, the ulnar pulse is palpable immediately

A. medial to the tendon of the flexor carpi ulnaris.
B. lateral to the tendon of the flexor carpi ulnaris.
C. lateral to the tendon of the flexor digitorum superficialis.
D. lateral to the tendon of the palmaris longus.
Answer = B

Forceful depression of the shoulder coupled with extreme and forceful lateral flexion of the head and neck as might occur in a fall from some height, can result in a loss of abduction, lateral rotation, and flexion at the shoulder due to

A. injury to the medial cord of the brachial plexus.
B. interruption of the C7 spinal nerve or the middle trunk of the brachial plexus.
C. avulsion-separation of the rootsof spinal nerves C5-C6.
D. injury to the posterior cord of the brachial plexus.
E. avulsion-separation of the roots of spinal nerves C8-T1.
Answer = C

Following trauma to the deep branch of the ulnar nerve, you test for the intactness of the interosseous muscles. You know that contraction of the palmar interosseous muscle between the fourth and fifth fingers results in

A. abduction of the fourth finger.
B. adduction of the fourth finger.
C. adduction of the fifth finger.
D. flexion of the interphalangeal joints of the fourth finger.
E. flexion of the interphalangeal jointsof the fifth finger.
Answer = C

A 10-year-old female punctured the palmar surface of the left little finger. Two days later, she had swelling and tenderness of the thumb of the left hand. Of the following, the most likely cause of the thumb swelling is

A. a separate wound that could not be detected on visual inspection.
B. spread of infection from the wound of the little finger via the common synovial sheath at the wrist.
C. spread of infection along connections between dorsal digital nerves of the hand.
D. spread of infection from the wound of the little finger to the thumb via lymphatics.
E. a spread of infection via the vascular compartment.
Answer = B

A tug-of-war in the playground produced severe lacerations in the palmar surface of the hands of a 10-year-old make. You suspect damage to the intrisic muscles of the hands and recal that the lumbrical muscles.

A. arise from the tendons of the flexor digitorum superficialis.
B. flex the interphalangeal joints.
C. are all innervated by the ulnar nerve.
D. extend the metacarpophalangeal joints.
E. insert into the extensor expansions.
Answer = E

A crushing blow by a Pittsburgh Steeler lineman damaged the posterior portion of the musculotendinous (rotator) cuff of the shoulder joint of KiJana Carter. Two (2) muscles that contribute to this portion of the rotator cuff are the

A. subcapularis and teres minor muscles.
B. supraspinatus and subscapularis muscles.
C. infraspinatus and teres minor muscles.
D. subscapularis and infraspinatus muscles.
Answer = C

Examination of a patient reveals paralysis of the abductor pollicis brevis muscle. All of the following nerves can be sites of lesions that resulted in this paralysis EXCEPT the

A. medial root of the median nerve.
B. lower trunk of the brachial plexus.
C. anterior interosseous nerve.
D. median nerve.
E. ventral roots of spinal nerves C8 and T1.
Answer = C

A 22-year-old male college basketball player received a stab wound limited to the posterior axillary fold during a brawl in a bar. Structures that could have been injured include the

A. pectoralis minor muscle.
B. long head of the triceps brachii muscle.
C. axillary artery.
D. medial cord of the brachial plexus.
E. latissimus dorsi muscle.
Answer = E

If a patient has difficulty abducting the arm AND extending the elbow and wrist joints, the most likely damage is to the

A. suprascapular nerve.
B. radial nerve.
C. posterior cord of the brachial plexus.
D. axillary nerve.
E. lateral cord of the brachial plexus.
Answer = C