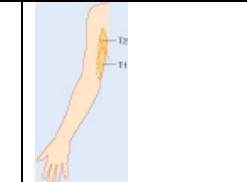
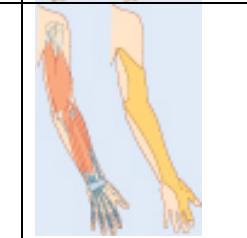
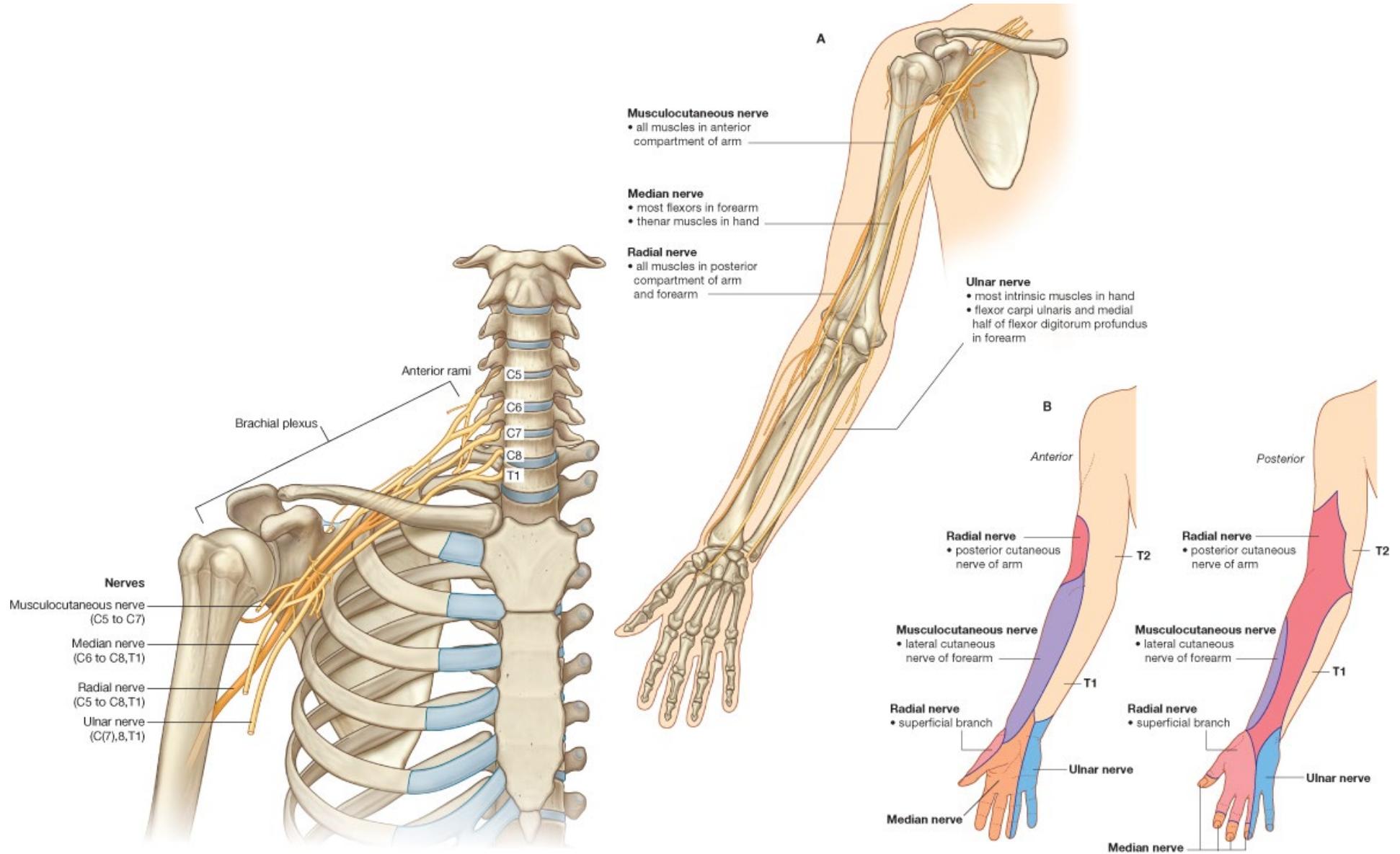


| Nerve   | Root               | Action  | Sensation   |   |
|---|--------------------|---|---|---|
| Musculocutaneous  | C5, C6, C7         | Muscles of anterior upper arm:<br>Coracobrachialis<br>Biceps brachii<br>Brachialis  | Gives the lateral cutaneous nerve of arm: skin on lateral side of arm   |    |
| Medial cutaneous  | Medial cord        |   | Medial side of upper arm  |    |
| Median  | C5, C6, C7, C8, T1 | Muscles of anterior forearm (except flexor carpi ulnaris + medial half of flexor digitorum profundus)<br>Thenar muscles<br>Lumbricals 1 + 2 |   |    |
| Ulnar   | C8 + T1            | Flexor carpi ulnaris<br>Medial half of flexor digitorum profundus<br>All intrinsic muscles of hand (except thenar + lumbricals 1 + 2)       |   |    |
| Radial nerve<br>-posterior interosseous nerve (posterior comp.)<br>-superficial branch (anterior compartment) | C5, C6, C7, C8, T1 | Posterior interosseous nerve<br>All muscles in posterior arm  | Skin on posterior surface of arm<br><br>Superficial branch of radial nerve:<br>Skin of dorsum of hand (see notes) |   |
| Axillary nerve  | C5, C6             | Deltoid<br>Teres minor  | Skin over deltoid   |  |



| MUSCLE                | ORIGIN  | INSERTION  | ACTION  | INNERVATION             |
|-----------------------|---|--|---|-------------------------|
| trapezius             | superior nuchal line<br>of occipital bone<br>nuchal ligament<br>spines of 7th &<br>all thoracic vertebrae | lateral third of clavicle<br>median margin of acromion<br>scapular spine | elevates shoulder<br>laterally rotates scapula<br>retracts scapula on thoracic wall | spinal accessory n.     |
| latissimus dorsi      | spinous processes of lower thoracic<br>vertebrae<br>lumbodorsal fascia<br>crest of ilium                  | floor of intertubercular<br>groove of humerus                            | adducts, extends, medially rotates arm  | thoracodorsal n.        |
| rhomboid major        | spinous processes of 2nd thru<br>5th thoracic vertebrae   | medial border of scapula<br>below root of scapular spine                 | retracts and medially rotates scapula   | dorsal scapular n.      |
| rhomboid minor        | spine of 7th cervical<br>and 1st thoracic vertebrae<br>lower part of nuchal ligament                      | medial margin of scapula<br>at the root of the scapular spine            | retracts and medially rotates scapula   | dorsal scapular n.      |
| levator scapulae      | transverse processes of C1-C4   | medial border of scapula<br>above root of scapular spine                 | raises scapula  | dorsal scapular n.      |
| supraspinous          | supraspinous fossa of scapula   | superior aspect of<br>greater tubercle of humerus                        | abducts the arm (1st 15 degrees)  | suprascapular n.        |
| infraspinous          | infraspinous fossa of scapula   | mid portion of<br>greater tubercle of humerus                            | rotates the arm laterally   | suprascapular n.        |
| teres minor           | lateral border of scapula   | lower aspect of greater tubercle of<br>humerus                           | rotates arm laterally   | axillary n.             |
| teres major           | inferior medial border of scapula   | crest of lesser tubercle of humerus                                      | adducts and rotates arm medially  | lower subscapular<br>n. |
| deltoid               | lateral third of clavicle<br>acromion process<br>scapular spine   | deltoid tuberosity of humerus  | abduction of arm from 15 degrees to 90<br>degrees                                   | axillary n.             |
| triceps, long<br>head | infraglenoid tubercle of scapula  | olecranon process of ulna  | extends arm and forearm   | radial n.               |

| UPPER ARM |                                      |  |  |                        |
|-----------|--------------------------------------|--|--|------------------------|
| Anterior  | Coracobrachialis                     | Coracoid process   | $\frac{1}{2}$ way down humeral shaft                               | Musculocutaneous nerve |
|           | Biceps brachii                       | Long head: supraglenoid tubercle<br>Short head: coracoid process | Radial tuberosity<br>(Bicipital aponeurosis → periosteum of ulnar) | Musculocutaneous nerve |
|           | Brachialis                           | Shaft of humerus   | Coronoid process ulnar   | Musculocutaneous nerve |
| Posterior | Triceps                              | Long head: infraglenoid tubercle                                 | Olecranon  | Radial nerve           |
|           | Superficial:<br>Long + lateral heads | Lateral head: back of radius above radial groove                 |  |                        |
|           | Deep:<br>Medial head                 | Medial head: back of radius below radial groove                  |  |                        |

| ANTERIOR COMPARTMENT OF FOREARM  |                                |                                  |                                    |                           |
|----------------------------------|--------------------------------|----------------------------------|------------------------------------|---------------------------|
| SUPERFICIAL<br>5 + 1             | Pronator teres                 | O: Medial epicondyle             | Lateral aspect radius              | Median nerve              |
|                                  | Flexor carpi radialis          | O: Medial epicondyle             | Base of 2 + 3 MC                   | Median nerve              |
|                                  | Palmaris longus                | O: Medial epicondyle             | Palmar aponeurosis                 | Median nerve              |
|                                  | Flexor carpi ulnaris           | O: Medial epicondyle + olecranon | Pisiform → hook hamate + base 5 MC | Ulnar nerve               |
|                                  | Flexor digitorum superficialis | O: Medial epicondyle H + R + U   | Middle phalynx                     | Median nerve              |
|                                  | Brachioradialis                | O: Lateral epicondyle            | Distal radius                      | Radial nerve              |
| DEEP<br>3                        | Quadratus                      | O: Ulnar                         | Radius                             | Anterior IO nerve         |
|                                  | Flexor pollicis longus         | O: R + IO                        | Distal thumb phalynx               | Anterior IO nerve         |
|                                  | Flexor digitorum profundus     | O: U + IO                        | Distal finger phalynx              | Anterior IO nerve + ulnar |
| POSTERIOR COMPARTMENT OF FOREARM |                                |                                  |                                    |                           |
| SUPERFICIAL<br>6                 | Anconeus                       | O: Lateral epicondyle            | Olecranon                          | Radial nerve              |
|                                  | Extensor carpi radialis longus | O: Lateral epicondyle            | 2 MC                               | Radial nerve              |
|                                  | Extensor carpi radialis brevis | O: Lateral epicondyle            | 3 MC                               | Radial nerve              |
|                                  | Extensor digitorum             | O: Lateral epicondyle            | P + M + D phalynx                  | Posterior IO nerve        |
|                                  | Extensor carpi ulnaris         | O: Lateral epicondyle            | 5 MC                               | Radial nerve              |

|                       |                          |  |                         |                    |
|-----------------------|--------------------------|--|-------------------------|--------------------|
|                       | Extensor digiti minimi   | O: Lateral epicondyle                                | 5 extensor expansion    | Radial nerve       |
| DEEP<br>5             | Supinator                | O: Lateral epicondyle + supinator crest              | Lateral proximal radius |                    |
|                       | Extensor indicis         | R + U + IO   | Extensor expansion      | Posterior IO nerve |
|                       | Extensor pollicis longus | U + IO   | Distal phalynx thumb    | Posterior IO nerve |
|                       | Extensor pollicis brevis | R + IO   | Proximal phalynx thumb  | Posterior IO nerve |
|                       | Abductor pollicis longus | R + U + IO   | Lateral base 1 MC       | Posterior IO nerve |
| <b>INTRINSIC HAND</b> |                          |  |                         |                    |
| THENAR                | Abductor pollicis        | FR + scaphoid + trapezium                            | Prox phalynx            | Median             |
|                       | Oponens pollicis         | FR + scaphoid + trapezium                            | Lateral MC              | Median             |
|                       | Flexor pollicis brevis   | FR + scaphoid + trapezium                            | Prox phalynx            | Median             |
|                       | Adductor pollicis        | Horizontal: MC 2 + 3<br>Oblique: MC 2 + 3 + capitate | Prox phaylnx            | Ulnar              |
| HYPOTHENAR            | Abductor digiti minimi   | FR + hamate  | Prox phal               | Ulnar              |
|                       | Oponens digiti minimi    | FR + hamate  | MC 5                    | Ulnar              |
|                       | Flexor digiti minimi     | FR + hamate  | Prox phal               | Ulnar              |

| PECTORAL REGION    |                         |  |   |  |
|--------------------|-------------------------|--|---|--|
| PEC<br>Superficial | Pec Major               | Medial half clavical<br>Front of sternum<br>Upper costal cartilage<br>External oblique aponeurosis | Lateral lip                                   |  |
| PEC<br>Deep        | Pec Minor<br>Subclavius | Ribs 3, 4, 5<br>Upper surface rib 1  | Coracoid process<br>Lower surface of clavicle |  |

| SCAPULAR REGION       |                |                     |                  |                     |
|-----------------------|----------------|---------------------|------------------|---------------------|
| Anterior<br>scapular  | Subscapularis* | Subscapular fossa   | Lesser tubercle  | Subscapular nerve   |
| Posterior<br>scapular | Supraspinatus* | Supraspinous fossa  | Greater tubercle | Suprascapular nerve |
|                       | Infraspinatus* | Infraspinous fossa  | Greater tubercle | Suprascapular nerve |
|                       | Teres minor*   | Lateral border scap | Greater Tubercl  | Axillary nerve      |

|                   |             |  |                               |                   |
|-------------------|-------------|--|-------------------------------|-------------------|
|                   | Teres major | Lateral border posterior scap                      | Medial lip                    | subscapular nerve |
| Superior scapular | Deltoid     | Lateral clavicle → acromium<br>→ spine of scapular | Deltoid tuberosity of humerus | Axillary nerve    |

| NECK + BACK → SHOULDER GIRDLE |                              |   |   |                         |
|-------------------------------|------------------------------|---|---|-------------------------|
| Back                          | Latissimus dorsi             | Lower T + L spinous processes<br>TL fascia<br>Iliac crest     | Intertubecular sulcus ( <i>lady between two majors</i> )          | Thoracodorsal nerve     |
|                               | Serratus anterior            | Lateral aspects ribs 1-8                                      | Medial margin of scapula  | Long thoracic nerve     |
| Neck                          | Levator scapulae<br>Rhomboid | Vertebral column  | Medial border scapula   | Dorsal scapular nerve   |
|                               | Trapezius                    | Back of skull<br>Ligamentum nuchae<br>C + T spinous processes | Same as deltoid origin<br>(lateral clavicle + acromium + scapula) | Accessory nerve (CN XI) |

| GLUTEAL – LATERAL ROTATORS            |                      |   |  |                                     |
|---------------------------------------|----------------------|---|--|-------------------------------------|
|                                       | Piriformis           | Middle 3 sacral                             | Greater trochanter                                     | Nerve to piriformis (L5, S1, S2)    |
|                                       | Gemellus superior    | Ischaial spine                              | Greater trochanter with ob intern                      | Nerve to obturator internus (L5,S1) |
|                                       | Obturator internus   | Internal obturator membrane + surround bone | Greater trochanter                                     | Nerve to obturator internus (L5,S1) |
|                                       | Gemellus inferior    | Ischial tuberosity                          | Greater trochanter with ob intern                      | Nerve to quadratus femoris (L5,S1)  |
|                                       | Quadratus femoris    | Lateral ischieum                            | Quatare tubercle of intertrochanteric crest (post fem) | Nerve to quadratus femoris (L5,S1)  |
| GLUTEAL – HIP ABDUCTORS / STABILISERS |                      |   |  |                                     |
|                                       | Gluteus minimus      | Ileum: between ant + inf gluteal lines      | Greater trochanter (anterior)                          | Superior gluteal nerve              |
|                                       | Gluteus medius       | Ileum: between ant + post gluteal lines     | Greater trochanter (posterior)                         | Superior gluteal nerve              |
|                                       | Tensor fasciae latae | Iliac crest between ASIS + AIIS             | Ileotibial tract                                       | Superior gluteal nerve              |

| HIP ADDUCTORS (MEDIAL COMPARTMENT) |                    |  |  |  |
|------------------------------------|--------------------|--|--|--|
| Superficial<br>2                   | Pectineus          | Pectineal line (pubis)                                   | Between lesser trochanter and linear aspera (post femur) | Femoral nerve  |
|                                    | Adductor longus    | Pubis below symphysis                                    | Linear aspera  | Obturator nerve                                      |
| Middle<br>1                        | Adductor brevis    | Pubis below symphysis                                    | Linear aspera + prox post femur                          | Obturator nerve (ant div)                            |
| Deep<br>3                          | Adductor magnus    | Inferior pubic ramus<br>Ischaial tuberosity              | Linear aspera<br>Adductor tubercle (lower femur)         | Obturator (post div)<br>(Except lowermost – sciatic) |
|                                    | Obturator externus | External obturator membrane + surround bone              | Trochanteric fossa (greater trochanter)                  | Obturator nerve (post div)                           |
|                                    | Gracilis           | Pubis below symphysis<br>Inferior pubic ramus<br>Ischium | Medial proximal tibia                                    | Obturator nerve (ant div)                            |
| HIP FLEXORS (PELVIS → FEMUR)       |                    |  |  |  |

|   |                    |  |  |  |
|---|--------------------|--|--|--|
|   | Iliacus            | Upper iliac fossa  | Lesser trochanter (common iliopsoas)   | Femoral nerve  |
|   | Psoas              | T12-L2 (trans process + disc)  | Lesser trochanter (common iliopsoas)   | Femoral nerve  |
| KNEE EXTENSORS (ANTERIOR COMPARTMENT)   |                    |  |  |  |
| Quadriceps femoris                      | Vastus intermedius | Upper 2/3 femur (anterior + lateral surfaces)                                    | Quad fermoris tendon<br>Lateral patella  | Femoral nerve  |
|   | Vastus medialis    | Medial part intertrochanteric line + pectineal line + linea aspera               | Quad fermoris tendon<br>Medial patella   | Femoral nerve  |
|   | Vastus lateralis   | Lateral part of intertrochanteric line + Lower greater trochanter + linea aspera | Quad fermoris tendon   | Femoral nerve  |
|   | Rectus femoris     | Straight head: AIIS<br>Reflected head: ileum above acetabulum                    | Quad fermoris tendon   | Femoral nerve  |
| KNEE FLEXOR (ANTERIOR COMPARTMENT)      |                    |  |  |  |
|   | Sartorius          | ASIS   | Medial side of tibia   | Femoral nerve  |
| FLEXORS OF KNEE – POSTERIOR COMPARTMENT |                    |  |  |  |
|   | Biceps femoris     | Long head: ischial tuberosity<br>Short head: linea aspera (fem)                  | Head of fibula + lateral tibial condyle  | Long head: tibial div of sciatic<br>Short head: com peron div of sciatic |
|   | Semitendinosus     | Ischial tuberosity   | Medial tibia (SGS) @ knee  | Tibial part of sciatic nerve   |
|   | Semimembranosus    | Ischial tuberosity   | Tendon: medial tibial condyle<br>Aponeurosis: capsule of knee joint (posterior oblique ligament → soleal line) | Tibial part of sciatic nerve   |