

MEASUREMENT GUIDE



UPPER EXTREMITY TIPS

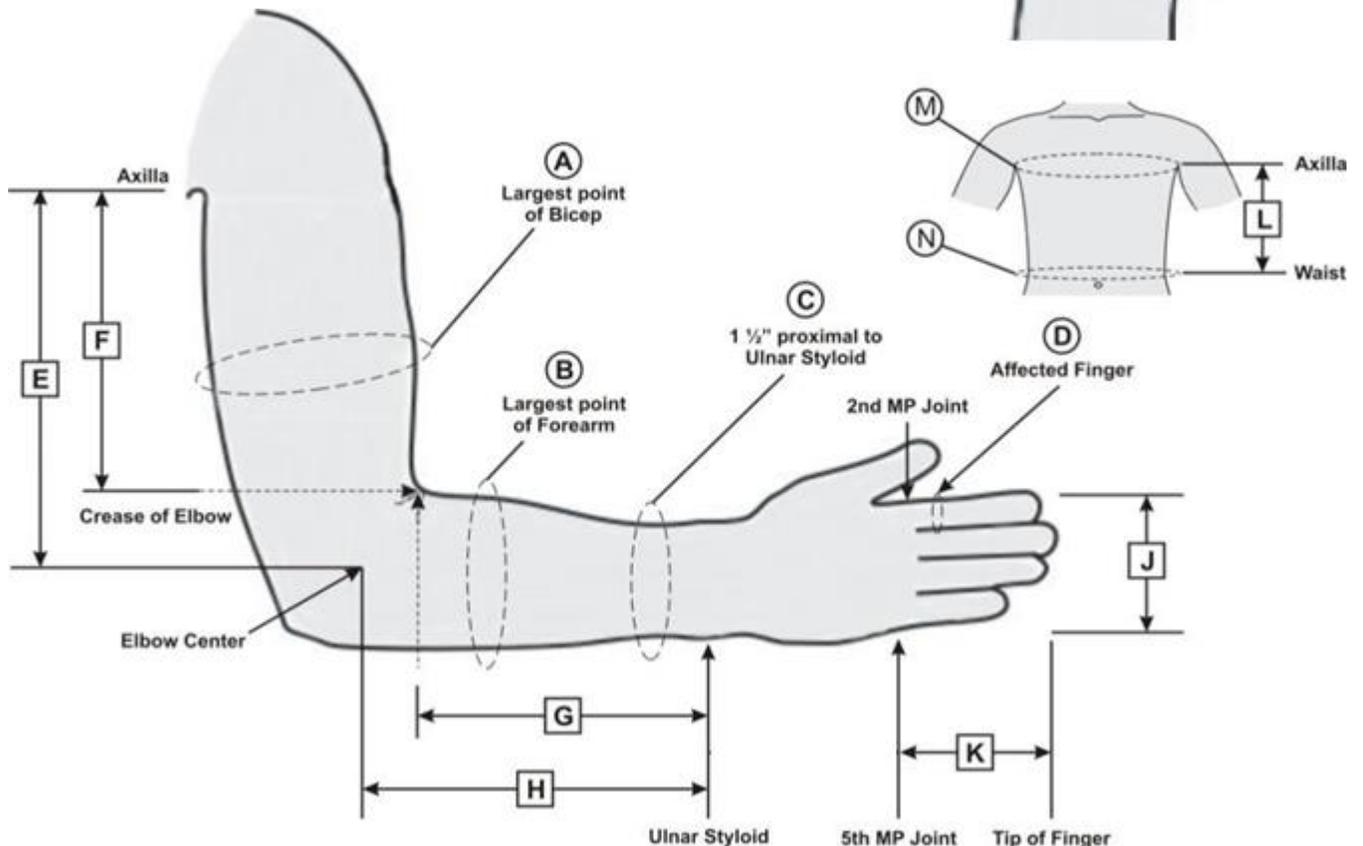
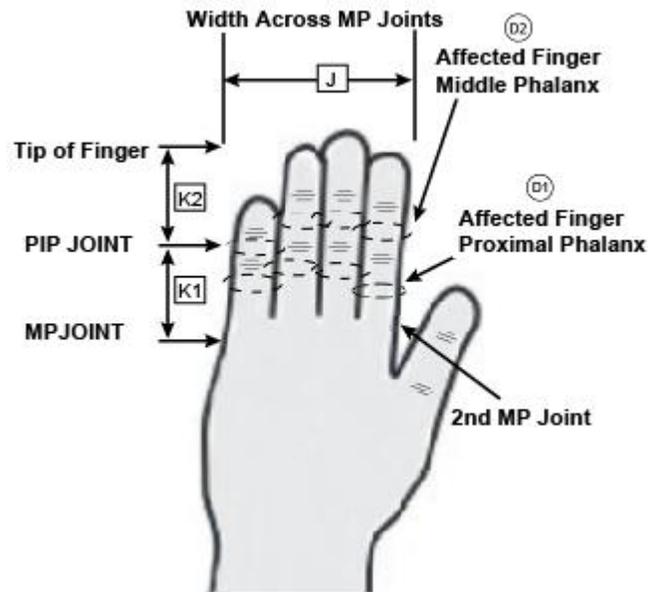
- * Measure directly over skin whenever possible. Measuring over heavy or loose clothing can compromise accuracy.
- * Marking of anatomical landmarks is recommended prior to measuring in order to have easily identifiable end points for segment lengths.
- * When measuring circumferences around soft tissue that is more flaccid or mobile, pulling the tape measure tighter is recommended.
- * If a handle-style circumference tape measure is used to measure lengths, be sure to read the correct side of the tape. (The scale for measuring circumferences typically starts at a number greater than zero on those devices)



UPPER EXTREMITY

Upper Extremity Measurement Chart

A	Circumference: Largest point of Bicep
B	Circumference: Largest point of Forearm
C	Circumference: 1 1/2" (3.8 cm) proximal to Ulnar Styloid
D1	Circumference: Affected Finger proximal Phalanx
D2	Circumference: Affected Finger Middle Phalanx
E	Length: Axilla to Medial Epicondyle
F	Length: Axilla to Crease of Elbow
G	Length: Crease of Elbow to Ulnar Styloid
H	Length: Lateral Epicondyle to Ulnar Styloid
J	Length: Width of Hand across MP Joints
K1	Length: Affected Finger MP Joint to PIP Joint
K2	Length: Affected Finger PIP Joint to Tip of Finger
L	Length: Axilla to Waist
M	Circumference: Chest at Axilla Level
N	Circumference: Waist at Belly Button Level



UPPER EXTREMITY

A: Circumference at Largest Point on Bicep

Measure patient at the largest point of the upper arm, which is typically near the midpoint level



B: Circumference at Largest Point on Forearm

Measure patient at a level 1 ½" distal to the crease of the elbow.



C: Circumference 1 ½" proximal to Ulnar Styloid

Measure patient at a level 1 ½" proximal to the Ulnar Styloid.



D1: Circumference of Affected Finger Proximal Phalanx

Measure patient at the midpoint level of the proximal phalanx of the affected finger. **For the thumb, this measurement is also taken around the proximal phalanx.*



UPPER EXTREMITY

D2: Circumference of Affected Finger Middle Phalanx

Measure patient at the midpoint level of the middle phalanx of the affected finger. * *For the thumb, this measurement will be taken around the distal phalanx.*



E: Length from Axilla to Medial Epicondyle

Measure patient from a level where the proximal bicep meets the chest pectoral musculature to the apex of the medial epicondyle. Keep the tape measure straight along the midline of the arm.

* Another option is to place a clipboard, note pad, etc. under the patient's arm pit, and measure from the top of the clipboard, etc. to the medial epicondyle of the elbow. Keep the tape measure straight along the midline of the arm.



Medial Epicondyle

F: Length from Axilla to Crease of Elbow

Measure patient from the level where the proximal bicep meets the chest pectoral musculature to the level of the crease of the elbow. Keep the tape measure straight along the midline of the arm, and extend the level of the elbow crease visually, or with a mark, to the medial surface of the arm. This transferred line from the elbow crease must be perpendicular to the tape measure.



UPPER EXTREMITY

G: Length from Crease of Elbow to Ulnar Styloid

With the elbow flexed at 90 degrees, measure patient along the lateral side of the forearm from a level of the elbow crease to the apex of the ulnar styloid. Keep the tape measure straight along the midline of the forearm, and extend the level of the elbow crease visually, or with a mark, to the lateral surface of the arm. This transferred line from the elbow crease must be perpendicular to the tape measure.



H: Length from Lateral Epicondyle to Ulnar Styloid

Measure patient from the apex of the lateral epicondyle of the elbow to the apex of the ulnar styloid. Keep the tape measure straight along the midline of the forearm.



J: Width of Hand across MP joints

Measure patient across the MP joints (knuckles) from the lateral side of the 5th MP joint to the medial side of the 2nd MP joint. Keep the tape measure straight instead of arced over the surface of the hand.



K1: Length of Affected Finger from MP Joint to PIP Joint

Measure patient from the MP joint of the affected finger to the PIP joint of the affected finger. Keep the tape measure straight instead of arced over the surface of the finger. * For the thumb, this measurement will be taken from the MP joint to the IP joint.



UPPER EXTREMITY

K2: Length of Affected Finger from PIP Joint to Tip of Finger

Measure patient from the PIP joint of the affected finger to the distal tip of the affected finger. * For the thumb, this measurement will be taken from the IP joint of the thumb to the distal tip of the thumb.



L: Length from Axilla to Waist

Measure patient along the side of the chest from a level where the proximal bicep meets the chest pectoral musculature to the anatomical waist. The anatomical waist is located between the iliac crest and lower rib margin. Keep the tape measure straight along the midline of the body. * If the waist cannot be palpated, measure to a level 1" superior to the belly button.



M: Circumference of Chest at Axilla

Measure patient around the chest at the axilla level. For women, the tape measure should be above the breast area. Keep the tape measure level around the body.



UPPER EXTREMITY

N: Circumference of Waist

Measure patient around the waist. Keep the tape measure level around the body. * If the waist cannot be palpated, measure at a level 1" superior to the belly button.



LOWER EXTREMITY TIPS

* When measuring lengths of the thigh, avoid excessive abduction of the leg being measured. Instead, abduct the opposite leg to allow access to landmarks of the leg being measured.

* Measure directly over skin whenever possible. Measuring over heavy or loose clothing can compromise accuracy.

* Marking of anatomical landmarks is recommended prior to measuring in order to have easily identifiable end points for segment lengths.

* When measuring circumferences around soft tissue that is more flaccid or mobile, pulling the tape measure tighter is recommended.

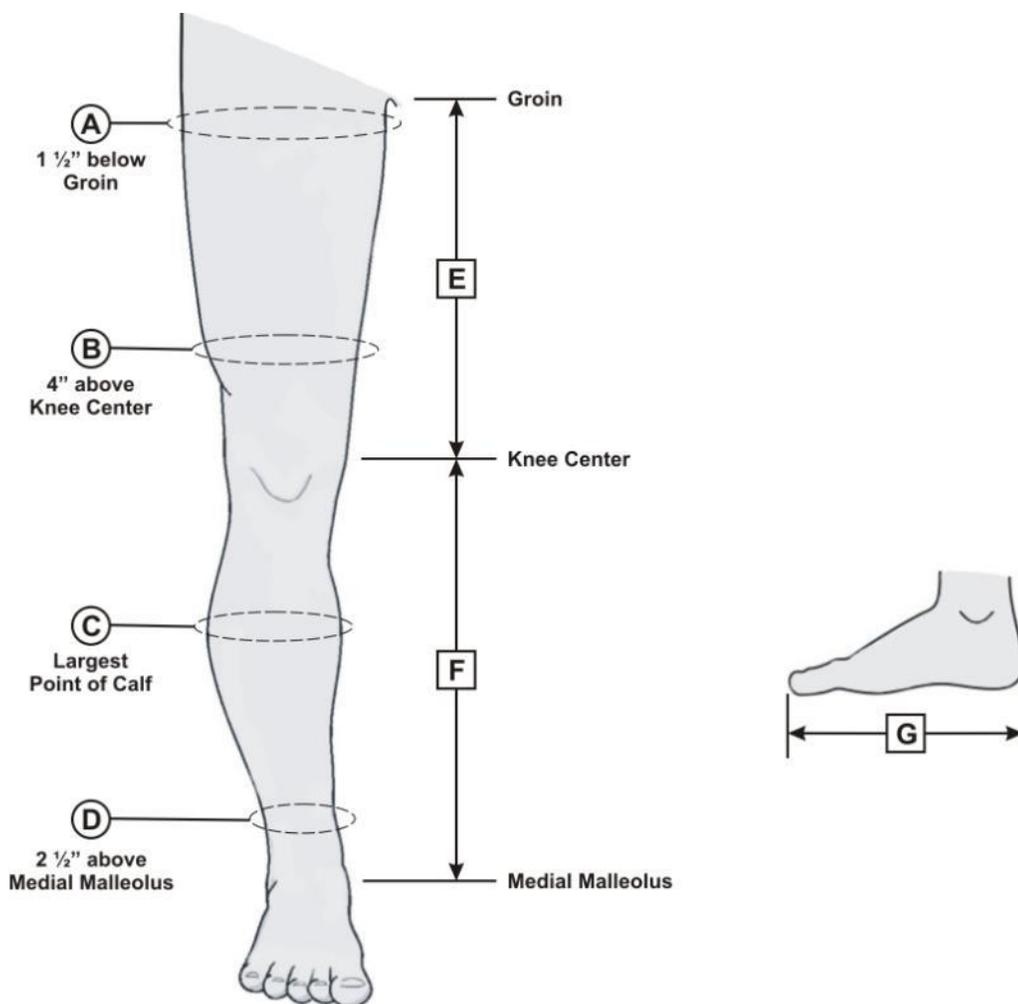
* If a handle-style circumference tape measure is used to measure lengths, be sure to read the correct side of the tape. (The scale for measuring circumferences typically starts at a number greater than zero on those devices)



LOWER EXTREMITY

Lower Extremity Measurement Chart

- A Circumference: 1 1/2" (3.8 cm) below Groin
- B Circumference: 4" (10.2 cm) above Knee Center
- C Circumference: Largest point of Calf
- D Circumference: 2 1/2" (6.4 cm) above Medial Malleolus
- E Length: Groin to Knee Center (*not center of Knee Cap*)
- F Length: Knee Center (*not center of Knee Cap*) to Medial Malleolus
- G Length: Foot Length



LOWER EXTREMITY

A: Circumference at 1 ½” below Groin

Measure patient at a level 1 ½” distal to the Groin.



B: Circumference at 4” above Knee Center

Measure patient at a level 4” proximal to Knee Center. Knee Center can be approximated by locating the Medial Epicondyle of the Knee.



C: Circumference at Largest Point on Calf

Measure patient at a level of the largest calf circumference.



D: Circumference at 2 ½” above Medial Malleolus

Measure patient at a level 2 ½” proximal to the Medial Malleolus. The Medial Malleolus is the bony prominence on the inside of the ankle.



E: Length from Groin to Knee Center

Measure patient from Groin to Knee Center. Have patient hold the tape measure on the inside of the thigh at a comfortable groin level, i.e., at a level where the proximal edge of the thigh cuff will be fully tolerable.

(Note: If there is excessive abdominal tissue covering the top of the thigh, start the end of the tape measure from that location along the inside of the thigh.) Knee Center can be approximated by locating the Medial Epicondyle of the

Knee. (Do not measure to the center of the patella.) Pull tape measure snugly so that it forms a straight line along the inner thigh midline.



LOWER EXTREMITY

F: Length from Knee Center to Medial Malleolus

Measure patient from Knee Center to Medial Malleolus. Knee Center can be approximated by locating the Medial Epicondyle of the Knee. The Medial Malleolus is the bony prominence on the inside of the Ankle. (Do not measure to the center of the patella.) Pull tape measure snugly so that it forms a straight line along the leg midline.



G: Length of Foot

Measure patient from back of heel to tip of the longest toe. Pull tape measure snugly so that it is straight along the side of the Foot.

