



Intended Use

The KnuckleUp orthosis is designed to address loss of digit extension and correction of angulation of the digits. Common applications include loss of extension secondary to radial nerve palsy and loss of extension from attritional extensor tendon ruptures. The orthosis is also indicated in extensor weakness from extensor hood attrition and subluxation related to rheumatoid arthritis. For fingers with ulnar drift, the angle of orthosis tension can be adjusted to help overcome finger deviation.

For single tendon ruptures, the KnuckleUp is trimmable to be worn on a single digit. For radial nerve palsy, two KnuckleUps can be trimmed and joined together and used along with the ThumbUp in order to treat all five digits. Additionally, for patients with loss of wrist extension, the KnuckleUp strap is simple to wrap over a custom or prefabricated wrist support.

The KnuckleUp's easy application and low-profile, comfortable design encourages patient compliance and makes fitting and education simple. Follow the QR code link for additional informational videos.



Pick the Right Size



or



then



5-10 min

Size

Measure

Trial

The KnuckleUp is available in sizes ranging from XX-Small to XX-Large, designed to fit most finger sizes. Each KnuckleUp includes two cylindrical openings of the same size. There are 2 ways to help determine the proper size:

1. Use the KnuckleUp Sizer Set: For the most accurate sizing in a clinic setting, the KnuckleUp Sizer Set provides a quick and accurate way to determine the right fit.
2. Circumferential Measurement: Alternatively, you can measure the circumference of the finger at the mid-level of the proximal phalanx just distal to the web space. Use a soft measuring tape, then refer to the sizing chart on our website (QR code to right) to select the appropriate size. Sizing in this manner is less accurate since a measuring tape does not replicate the geometry and material stretch of the actual orthosis over the proximal phalanx.



Whether using sizers or circumference measurement, have the patient wear the orthosis for 5-10 minutes in the clinic to confirm good fit. If the orthosis feels too tight, choose a larger size. The correct size should be chosen by a healthcare professional based upon patient comfort, tightness upon initial application and should take into account finger swelling, and quality of skin.

Trimming & Combining

The neoprene material of the KnuckleUp allows easy trimming. For shorter digits, the cylinder can be shortened at the distal end so that the orthosis does not cross the PIP joint. To reduce bulk at the wrist, the proximal end of the strap is trimmed shorter in most patients so that the strap wraps the wrist fully but not redundantly.

When treating a single digit, one of the two cylindrical finger sleeves can be trimmed off with a sharp fabric or splinting scissors.

Trimming & Combining (continued)

When combining two KnuckleUps in a patient, first fit the KnuckleUp on the index/long finger and wrap the wrist, then fit the finger openings of a second KnuckleUp on the ring/small fingers. At this point there are two options:

- The second KnuckleUp strap can be wrapped around the wrist in a similar manner as the first.
- Alternatively, the second KnuckleUp strap can be trimmed and Velcro attached to the strap of the first KnuckleUp.

Wearing KnuckleUps

1. Wash and dry the hand to remove oils and lotions from the skin that might degrade the orthosis material over time.
2. Over dry, intact skin, slide the orthosis over the digits to be treated.
3. Wrap the strap dorsally over the hand, around the wrist, and then use the Velcro to secure the end of the strap to itself.
4. Optionally, increase MCP extension force or modify angle of pull using the enclosed elastic bands.



Precautions/Warning

This orthosis is designed to be sized, fitted, and trimmed by a healthcare professional. Do not use on skin with open sores, cuts, or over stitches. Do not use if you are allergic to any materials in this product, are susceptible to skin breakdown secondary to skin conditions such as psoriasis, eczema, prior burns or radiation, etc. or have thin skin from prolonged steroid exposure. Do not use on digits with compromised circulation or numbness. Safe use requires digits that have normal sensation and can provide feedback to the wearer whether orthosis fit continues to be appropriate. The circumferential design of the orthosis elevates skin surface moisture and temperature. Regularly check skin for integrity after a few hours of wear when first using the orthosis. Discontinue using if any skin discoloration, discomfort, breakdown, redness, or blisters develop. Immediately notify your treating medical professional. Do not wear the orthosis if it appears deformed or structurally compromised. Discontinue using the orthosis if the fit feels too tight or causes digit numbness or coolness.

Although the fabrics and seam tape of the KnuckleUp orthosis are non-latex material, the seam glue used to assist bonding at seams does contain latex and individuals with allergies or sensitivities to latex should exercise caution or not use this orthosis.

Materials

Neoprene, nylon, seam adhesives.

Caution: This Product Contains Natural Rubber Latex Which May Cause Allergic Reactions.

If skin irritation or discomfort occurs, discontinue use and consult a medical professional

Cleaning

Hand wash with mild soap/detergent in cool water. Rinse thoroughly. Air dry only. Do not bleach.

Further Instructional Information

Visit angularortho.com for further information and videos. It's easy by visiting the link in the QR code below



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