DynaPro™ Flex Hand Orthotic

PROGRAM:

Orthotic therapy for mild to severe wrist, hand, finger joint stiffness, contractures, or treatment of abnormal tone and spasticity. Wrist contractures (flexion or hyperextension); radial or ulnar deviation of the hand; flexion / hyperextension contracture(s) of the MP / IP joints of the fingers; and adduction of the thumb.

TREATMENT RATIONALE:

To treat joint stiffness, contractures, or treatment of abnormal tone and spasticity of the wrist, hand and fingers (including thumb). From severe wrist flexion or hyperextension to a tight fist, the orthotic device will facilitate muscle inhibition to predispose the affected joint(s) to the Low Load Prolonged Stretch provided by the orthotic or added components (MP / IP Extension Cones). Ulnar or radial drift of the hand can be treated by device modification. Thumb abduction is increased as incrementally larger MP / IP Extension Cones are added to the device. By increasing wearing time to three to six hours per use, the Total End Range Time (TERT) of device wear provides long effects stretch and permanent increases in joint range of motion over time. Orthotic treatment should be continued until function is restored to the affected hand.

FUNCTIONAL OBJECTIVES:

Increase wrist, hand and finger (including thumb) Range of Motion, improve hygiene of the hand, and where possible, improve functional ability of the fingers and hand to assist with activities of daily living.

ORTHOTIC TREATMENT:

1. Upper extremity tone may require the use of Passive Range of Motion (PROM) or NeuroStretch™ from the shoulder to hand to reduce tone and facilitate muscle inhibition proximal to distal of the entire affected upper extremity.
2. Use PROM or NeuroStretch™ submaximal passive stretching to point of noticeable resistance only (no discomfort) to passively stretch the affected joint capsule(s), connective tissue, tendons, and muscles. Avoid a stretch reflex while passively stretching the joint. Concentrate on the wrist and thumb NeuroStretch™ locations prior to placing any extension force on the fingers or thumb.
3. To treat ulnar or radial deviation of the hand mold the palmar bar lever providing 5° to 15° of "flex" towards neutral from the point of resistance to passive stretch. This will provide the optimal gentle stretch of the affected joint.
4. Select appropriate size MP / IP Extension cone (when appropriate) and place over the Flex Hand palmar bar, guiding the palmar bar strap through the cone.

5. The Kydex® orthotic wrist base may be heat molded as needed. Provide approximately 5° to 15° of additional wrist stretch "flex" to maximize patient outcomes in treating wrist flexion or hyperextension.
6. Gently roll the palmar bar of the device under the fingers into the palm of the hand with the palmar bar strap end approximately one inch out from the thumb web space. The Flex Hand long opponens frame should be centered along the medial side of the forearm. Attach the three WHFO straps (forearm, wrist, hand) to secure the device in place without creating unwanted pressure on the skin.
7. After initial device application the affected tendon(s) should feel stretched with no indication of pain or discomfort. After 15 minutes of wear, softening or relaxation of the same tendon(s) indicates that the joint is predisposed to long effects therapeutic stretch.
8. Gradually increase wearing time to three hours or more to achieve Total End Range Time (TERT) that will provide long effects stretch.
9. Determine wearing schedule based upon patient tolerance, therapy evaluation and physician's order.
10. Check for skin redness, pressure, and potential patient discomfort every two to three hours. Evaluate any red areas using the Blanch Test. Remove the orthotic device immediately if significant redness, pressure, or pain and discomfort are evident. ***If there is significant redness, pressure or pain associated with device use, remove the device immediately.*** Discontinue use until the skin integrity or comfort issues are resolved. The device may require modification or the wearing schedule may be altered to eliminate potential skin integrity and comfort problems.
11. A significant wearing schedule disruption often requires a re-adaptation period. A gradual re-introduction and increased wearing endurance may be necessary. Note wearing schedule changes in the patient's care plan.
12. Follow manufacturer's instructions for care of the orthotic device. Always inspect the device between applications to ensure the soft goods are properly in place, the device settings have not been altered, and the device has not been soiled or would provide any other risk to the patient prior to application.
13. Whenever the patient is not experiencing a gentle stretch sensation post application (or at least once a month), check the device settings for continued application of the desired amount of "flex" therapeutic stretch.

Laundry Instructions:

1. Always remove soft cover from frame before washing.
2. Close all hook and loop attachments on soft cover and place in enclosed laundry bag.
3. Hand or machine wash, gentle cycle with mild detergent. DO NOT USE COMMERCIAL WASHERS OR HOT WATER.
4. No bleach or fabric softener.
5. Air dry.

WARNING: The product requires a physician's order. The product is designed for single patient use only in order to avoid cross contamination. Any substitution or removal of the product's parts voids the manufacturer's warranty. OCSI/NeuroFlex, Inc. will assume no liability if the above instructions are not followed.