

DynaPro™ Finger Flex & Resting WHFO

PROGRAM:

Orthotic therapy for high risk to moderate contracture of the wrist, hand, and fingers and adduction of the thumb. To achieve and maintain functional positioning of the hand or an anti-spasticity hand orthotic. The WHFO device insert may be heat molded to obtain the desired custom fit.

TREATMENT RATIONALE:

To treat joint stiffness, contractures, or treatment of abnormal tone and spasticity of the wrist, hand, and fingers (including thumb). The orthotic device will function as an anti-spasticity hand orthotic by facilitating muscle inhibition to diminish spasticity. Thumb abduction is treated by a free moving thumb roll component with a pocket for placing incrementally larger thumb abduction foam resister inserts to increase thumb abduction. The orthotic device can achieve and maintain the hand in a functional neutral resting position. Total End Range Time (TERT) to achieve a positive outcome should be increased gradually to six hours per day to patient tolerance as recommended by the physician. Orthotic treatment should be continued until function is restored to the affected hand.

FUNCTIONAL OBJECTIVES:

Increase / maintain wrist, hand, finger Range of Motion, and treat abduction of the thumb. Treat mild to severe contracture of the wrist, hand, fingers and abduction of the thumb. If possible, improve functional ability of the hand and fingers to assist with activities of daily living.

ORTHOTIC TREATMENT:

1. Upper extremity tone may require the use of PROM or NeuroStretch™ beginning at the shoulder and elbow to reduce tone and facilitate muscle inhibition proximal to distal of the entire upper extremity.
2. Use PROM or NeuroStretch™ 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. Use submaximal passive stretching to point of noticeable resistance only (no discomfort). Hold for a minute to allow the extension release of the affected joint.
4. If needed, heat-mold the Kydex insert of the orthotic to provide approximately 15° of “flex” at the wrist. Heat mold the finger platform to provide gentle stretch of the MP / IP joints as needed.
5. Cut or replace the thumb abductor foam resister insert at the thumb (in thumb pocket) to provide the desired thumb abduction stretch.
6. Place the Finger Separator if used in the desired position to provide abduction / separation of the fingers to fit the treated hand.



7. Position the wrist at the desired position on the WHFO. While holding the wrist in place, secure the forearm and wrist straps. Gently position the fingers on the finger platform, and secure the hand strap to maintain finger positioning in the device. Position and secure the thumb with the thumb strap.
8. Upon initial device application, you should feel tension (stretch) in the affected joint(s) (wrist / fingers / thumb). Palpation of the affected tendons after 15 minutes of wear should demonstrate softening or relaxation, which indicates that the joint is predisposed to long effects stretch.
9. Wearing the device will treat contractures of the fingers and wrist and thumb through joint muscle inhibition (flex), Low Load Prolonged Stretch (LLPS). With gradual increased wearing time to three hours to six hours per use, Total End Range Time (TERT) will provide long effects stretch.
10. Determine wearing schedule per therapy evaluation and physician's order.
11. Incrementally increase wearing time per patient tolerance and patient care plan.
12. Release and check for skin redness or pressure or patient discomfort every two to three hours. Initially, a tight hand may require checks every half an hour. Use the Blanch Test to evaluate any red areas. Remove the orthotic device immediately if significant redness or pressure is evident. Any skin indentations should disappear within minutes of device removal. Notify the appropriate staff member(s) immediately and document any significant redness or signs of adverse pressure. Discontinue device use until the skin integrity issues are resolved, and the device is modified or the wearing schedule is altered to eliminate potential skin integrity problems.
13. A re-adaptation period is necessary every time there is a significant disruption in wearing schedule. Device endurance must be reintroduced gradually, and noted in the Patient's care plan.
14. 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.
15. Check device settings for continued application of the desired amount of "flex" extension stretch at least once a month.

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.