Instructions For Use

AliMed® Therapy Carrot™ Finger Orthosis Kit & Light Blue Palmar Swab™ Kit
AliMed® Therapy Carrot™ Finger Orthosis
Suggested HCPCS Reimbursement Code: L3999 (Special consideration for a WHFO orthosis to assist with extension of the MP, PIP, and IP joints. Custom fitted.)

**Principal Application:** Progressive management of multiple, severe finger flexion contractures. Appropriate for patients who cannot, or will not, be splinted with more conventional finger-hand-wrist orthoses.

**Primary Diagnostic Groups:** Severe finger flexion contractures as often observed in long-term care facility patients such as post-CVA (Cerebrovascular Accident/Stroke) or TBI (Traumatic Brain Injury).

**Secondary Diagnostic Groups:** SCI (Spinal Cord Injury) above C6 level and various other conditions which have resulted in disuse and atrophy of the upper extremity.

**Advantages:** Ease and safety of placement and use. Facilitates progressive measurement of increased finger extension. Made of non-resilient materials to reduce flexor surface contact stimulation during use. Highly visible, therefore less prone to accidentally becoming lost in linens and discarded. Durable. Machine washable. Can be applied by many patients without assistance.

**Disadvantages:** Will not prevent thumb adduction and does not address flexion contracture that may affect the wrist.

**A Word on Reimbursement:** For long-term care patients without insurance or private funding, the cost of the rehabilitation equipment described in this instructional manual may be reimbursed via your facility daily rate, when you can provide indisputable documentation.

Reimbursement for patient-specific rehabilitation items can be recovered through the negotiation of your daily rate with your state rate-setting commission. However, for patient-specific expenses to be considered, you must have clear documentation. Therefore, at your request, AliMed® inc. offers to include patient names on your invoice.

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**Gentle progressive correction for contracted fingers**

AliMed® Therapy Carrot™ Finger Orthoses (TCFO) with its tapered and conical shape, provides gentle, progressive, and measurable treatment of severely contracted fingers. The “Document-Assist” numbers printed on each TCFO help the clinician to very specifically chart improvement of the patient’s condition.

**Orange and Green Therapy Carrot™ Finger Orthoses (TCFO)** are made of smooth cotton fabric packed with washable wool fleece. Wool fleece was selected because it is comfortable, absorbent, and non-resilient. Unlike foam products, the benefit of the non-resilient wool fleece is that it is unlikely to stimulate flexor activity in the fingers of patients with neurological conditions.

Two sizes of the Orange and Green TCFOs provide specificity of treatment for finger and hand contractures. Patients with the most severe contractures should be started with the small Orange Carrot and then progress towards usage of the larger diameter Green Carrot. Recommended methodology and sample patient care plans are included with each kit (see pp. 5-9 of this instruction manual).

**Light Blue Therapy Carrot™ Finger Orthosis** is filled with tiny plastic microspheres that are highly conforming and non-resilient, so the orthosis won’t increase spasticity. Conforms to help treat significantly distorted hands.

**Avoiding Pain Improves Cooperation**

The placement of most orthotic devices into contracted hands requires forceful lifting of the fingers. The danger of accidental dislocation of the metacarpal joints exists when using this technique. The Therapy Carrot™ helps caregivers avoid that risk. It is fitted into the hand with the help of a smooth plastic placement wand that draws the TCFO gently into the correct location without use of excessive force. With training, the patient can often apply it without assistance.
Why a carrot for therapy?

The carrot is the product of a great idea for improving the health of some of our most vulnerable patients. Warren Dahlin, MS, OTR/L, first associated the carrot with therapy in his practice at Braemoor Rehabilitation Nursing Center in Brockton, MA. He received a challenging referral for a 65-year-old retired firefighter with a history of throwing his hand splints and cones across the room. In seeking a device that did not look like the rejected splints, Warren observed that the carrots growing in his garden were conical, tapered, and firm. His next idea was to combine orange and green cloth with wool from the sheep on his small farm. We call Warren’s product the Therapy Carrot. It worked for the firefighter and for many other patients at Braemoor who had severely contracted hands.

AliMed® Therapy Carrot™ Finger Orthosis Kit consists of two carrots (one to wear while the other is being laundered), a plastic placement wand, sample patient care plans, instructions for progressive product use, suggested policies and procedures for hand contracture management in long-term care settings, and a permanent marker to reduce risk of loss.

Orange and Green Therapy Carrots are available in two sizes. The small Orange size has a smallest documentable circumference of \(1\frac{7}{8}''\) and largest documentable circumference of \(4\frac{3}{4}''\). Large Green size has a smallest documentable circumference of \(2\frac{1}{4}''\) and a largest documentable circumference of \(5\frac{3}{4}''\). Orange and Green Therapy Carrots are approximately 9” long.

Light Blue Therapy Carrots come in one size. The smallest documentable circumference is \(2\frac{1}{2}''\) and the largest documentable circumference is \(4\frac{3}{4}''\). It is 11” long. Pat. #5,830,108

Ordering Information:

#51024  TCFO Kit, Orange, Sm.
#51026  6 replacement TCFOs, Orange, Sm.
#51025  TCFO Kit, Green, Lg.
#51027  6 replacement TCFOs, Green, Lg.
#52526  TCFO Kit, Light Blue
#52527  6 replacement TCFOs, Light Blue

The Therapy Carrot™ helps you avoid the painful overextension of the fingers that occurs with insertion of most other orthoses, helping improve patient acceptance and compliance.

Warren Dahlin, MS, OTR/L, and his patient at Braemoor Rehabilitation. Warren is Assistant Professor of Health Care Administration at Stonehill College, where he directs the Gerontology Program.
To clean and reduce pain in a patient’s swollen, tightly fisted hand, we soak the hand and at the same time talk to the patient to increase his or her comfort level and trust in us and the process. We then undo all the good we have accomplished and sabotage the therapeutic relationship by prying open painfully contracted fingers to dry and examine the hand. This makes no sense!

Dragging washcloths with their bumpy hems through the hand’s tight spaces can cause pain and injury. Ineffective cotton swabs and gauze often leave dangerous residual fibers in the hand that increase the risk of infection.

**AliMed® has the solution**
The Palmar Swab™ Kit, developed by Warren Dahlin, MS, OTR/L, inventor of the Therapy Carrot Finger Orthosis™, uses state-of-the-art fabric composites and a simple, commonsense method to clean and inspect the hand. The light blue fabric of the Palmar Swab not only wicks moisture away from the hand—the soft, velvet-like material reduces shear stress.

The light blue material bonded to a thin absorbent foam layer increases absorption and comfort. Strong, ultrathin, open-weave white sports fleece on the underside of the Swab ensures maximum strength. Palmar Swab’s triangular shape allows easy insertion, and its edges are sealed, reducing the risk of residual fibers in the hand.

Compare this to the washcloth or roll of cotton gauze!

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**Palmar Swab™: A diagnostic tool**
When caregivers suspect an open lesion or skin breakdown in a tightly fisted hand, prying open the painful fingers is the only method available to examine the area. This frequently causes refusal of treatment on the part of the patient, which can cause a life-threatening situation.

We specifically designed the Palmar Swab with contrasting colors on each side to aid diagnosis and documentation. The light blue surface allows the therapist to see flecks of tissue or debris removed from the hand. For example, on the second day of treatment, notes could reflect “a 25% decrease in debris noted over 24 hours.”

For suspected bleeding lesions, fold the Swab the long way with the white side out. Gently insert the wide end of the Swab into the web space between the fingers over the suspected skin breakdown. With the ball end of the Positioning Wand, gently smooth out the Swab over the lesion and hold it down for a prescribed time. Remove the Swab from the palm, and observe and document the amount and nature of any fluid that may be absorbed onto the white surface. During the entire process, reassure the patient and keep your promise that you will not hurt them, increasing trust, decreasing anxiety, and building a strong therapeutic rapport.

**Palmar Swab™ Kit** 48 disposable Swabs, two Positioning Wands, instructions.

#52531 Light Blue Palmar Swab Kit
Light Blue Palmar™ Swab and Hygiene Kit—Step by Step

Step One: Clean the hand using the Palmar Swabs™ contained in your kit.

A. Connect a Palmar Swab to the Positioning Wand as shown. (Figure 1)

B. Dip the Swab in the cleaning solution you typically use for cleaning fragile skin.

C. Slide the Wand through the hand, dragging the Palmar Swab through the palm area. (Figure 2)

D. Slide the wand between fingers and through the thumb web space. (Figure 3)

E. Using a dry Palmar Swab, repeat the process to dry the hand thoroughly.

Step Two: Slide the Finger Contracture Orthosis into the hand.

A. Connect the Orthosis to the Placement Wand. (Figure 4)

B. Slide the Placement Wand into the hand, pulling the Finger Contracture Orthosis along with it.

C. When the end of the orthosis emerges from the hand, disconnect the Placement Wand and pull the ribbon on the end of the orthosis with your fingers.

D. When the product is in place, it will look like Figure 5. Note that it can be placed in the hand facing either direction, depending on what is most comfortable for the patient.

**Finger Contracture and Hygiene Kit**

Contains twenty Palmar Swabs, one Light Blue Therapy Carrot, and four placement wands.

To obtain additional Palmar Swabs, please order our replacement Palmar Swab kit. Light Blue Palmar Swab Kit comes 48/pk with two wands.

**Important:** This product is intended for single patient use.

**To Reorder:**

#52530 AliMed Light Blue Finger Contracture and Hygiene Kit

#52531 Light Blue Palmar Swab Kit
Sample Care Plan

A Problem or Need: A clear and simple definition, usually a fairly broad statement. In this example, the problem is: "Upper extremity contracture 2° CVA." Secondary, more specific, problems follow, including painful shoulder; severe elbow contracture; severe hand contracture; pain; edema; decreased participation in self-care; risk of skin breakdown and infection in hand and elbow; and decreased family involvement.

B Treatment Goals: Develop a statement to express your anticipated outcome. Treatment goals must be realistic and measurable as well as clearly stated. In this example, the goals are to decrease pain in shoulder and hand; increase elbow extension 15°; increase ROM of hand to accept resting splint; be free of infection; be free of skin breakdowns; increase participation in ADL and hand care; and increase family involvement in hand care and ROM. Sometimes phrasing your goals will be difficult, particularly because each goal must be measurable. Take the time to craft your wording.

C Action Plans/Action Steps: The action plan works to accomplish goals you have defined and will always follow directly from your identified goals. There will be at least one step for every goal. This is the section of the care plan that should reflect what orthotic devices or adaptive equipment are being used with the patient. If the action step is "ADL training with AM care 5X week by COTA," then you would also expect that the problem of self-care appeared before in the care plan. Each time an entry is made, it should be initialed and dated. In the sample care plan we include: OT 5X week by OTR; skilled ROM in AM; splint application of Therapy Carrot and Air Splint by OTR only; wearing schedule to be determined by OTR and patient; wheelchair positioning with lap tray at all times; keep hand clean and dry at all times; request dietary consult; train family on use of Therapy Carrot; and expect resident to participate in care and self-ranging.

D Responsible Person/Discipline: In this column, the professional title of the person responsible for carrying out the action step should be identified.

E Review Date: This column defines when the care plan will be reviewed. If treatment was ordered for a specific period of time—let’s call it fourteen days—then a review date would be required on the fourteenth day to ensure that the plan is changed on the day treatment is scheduled to end. Changes in the plan should reflect the date they occur.
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<tr>
<th>Measurable Goals</th>
<th>Plan of approach</th>
<th>D Line</th>
<th>E Date</th>
<th>F Date resolved/ comments</th>
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**Date Resolved:** This column specifies the point at which the patient's identified care plan problem was resolved or the goal was achieved.

**Summary:** Occupational therapy treatment of upper extremity contracture is an appropriate patient care objective. Successful treatment will not only reduce pain, edema, and the danger of infection, but treatment will also enhance the patient's quality of life and the ability to participate in enjoyable daily activities.
Sample Policies

It is the policy of this facility to make every effort to guard against severe contractures of the hand in any resident. It is everyone’s responsibility to be watchful for conditions that may increase the contracture of the hand of any of our residents.

If anything is noted by any staff member that would create concern relative to severe hand contractures, the charge nurse on the resident’s unit should be notified immediately. The charge nurse is responsible for notifying the occupational therapist in the event that a severe hand contracture is observed.

Since all residents are screened by occupational therapy, a resident coming into the facility with a severe hand contracture would be identified during the occupational therapy screening and appropriate action would be taken. The Therapy Carrot™ Finger Orthosis (T.C.F.O.) will be considered in all cases where severe hand contracture exists. The decision to use this methodology or to defer the use of this methodology will be documented in the patient record as a rationale for the decision.

This documentation should be provided by the occupational therapist. As with any therapeutic or orthotic device, the hand should always be kept clean and dry, with fingernails trimmed and careful attention given to any changes that occur in the resident relative to hand contractures. Any changes should be reported to the charge nurse who will pass this information on to the occupational therapist. If the occupational therapist notices these changes, then those changes will be clearly documented in the record, and the information will be given to the charge nurse as well.

It is the responsibility of the nursing department to ensure that there is always a clean T.C.F.O. in good condition and available to the resident at all times. If the device is lost or is not in good condition, it is the responsibility of the nursing department to notify the O.T. department within 24 hours.

The wearing schedule for the T.C.F.O. will be documented in the care plan and communicated to the nursing staff responsible for the daily care of the resident.

When the resident is receiving skilled occupational therapy treatment with use of the T.C.F.O., it is the responsibility of the occupational therapy department to ensure that all equipment is maintained with consideration to safety and cleanliness.
1. When a severe hand contracture is recognized, the charge nurse is to be notified. The charge nurse is responsible for alerting the occupational therapy department to set up a screening for a severe hand contracture.

2. Every new resident will be screened by occupational therapy, and that screening will include consideration for severe hand contractures where they exist.

3. Once occupational therapy identifies a severe hand contracture, this condition will be documented and described in detail in the occupational therapy section of the patient's record.

4. In addition, the therapist will complete the Patient Care Plan: the problem number, the date noted, and a new problem listed as severe hand contracture. Other related conditions, including: 1) edema, 2) pain, 3) signs of infection (for example: redness or broken skin areas) should be noted. Under measurable goals (long-term goals: hand contracture decreased to the point where other orthotic devices can be used) on the care plan, the occupational therapist will document the decrease in finger flexion. This can be documented in degrees of flexion or, when using the Therapy Carrot Finger Orthosis (T.C.F.O.), in millimeters on the T.C.F.O. ruler. Plan of approach should be documented in the resident care plan with action steps, including the obtaining of an occupational therapy order with specific times indicated; the use of the T.C.F.O. safety measures; indications and contraindications to be observed; schedule for the T.C.F.O. to be worn; the frequency with which measurements will be taken and documented; and the disciplines responsible for each step, including target dates. When the use of the T.C.F.O. results in positive change to the point where treatment may be discontinued, it is the responsibility of the occupational therapist to request a d/c order for a skilled O.T. The responsibility for the care of the contracted hand then passes to nursing. This will only take place after clearly documenting procedures, indications and contraindications of treatment, and after all staff have been in-serviced in the use of the T.C.F.O. If the therapist decides that increased range of motion can be obtained by using other means, this must be reflected in the physician's order book.

5. When a therapist determines that a T.C.F.O. Kit is needed, a physician's order must be obtained.

“It has really helped my husband.”

“I thought it was cute and it has really helped my husband. He wouldn’t use the other splints they made for him at the rehabilitation center. They were so hard and they didn’t seem to help much. The Therapy Carrot was comfortable for him. He holds it for hours!” She went on to say, “You know, everything doesn’t have to be so medicinal. Everyone thinks his Carrot is cute. It’s a real eyecatcher.”

Virginia MacDonald
Wife of first Therapy Carrot
Finger Orthosis user

“Don’t change it!”

“I love it! It brings color and whimsy to long-term care settings.”

When asked if the Therapy Carrot would be offensive to people with disability:

“If we see Jane Smith or John Black as lying in a bed in a ‘vegetative state,’ then the Therapy Carrot might be seen as reinforcing a negative stereotype. But if we see Jane or John as individual people, then the Therapy Carrot becomes a wonderful symbol of health and motivation. Don’t change it!”

Mary Jane Owen,
Executive Director,
National Catholic Office for Persons with Disability
This finger orthosis is used to assist the increase of extension at the MP, PIP, and IP joints of the fingers where flexion contracture exists. It is a custom fitted orthosis.  

Suggested HCPCS Code: L3999.

Application: This device can be used in progressive release of severe contracture. There are two methods of application: (A) manual placement and (B) insertion using the Placement Wand.

A. Manual Placement: Depending on the severity of the contracture to be addressed, the Therapy Carrot can be inserted at either the index finger or the little finger.

Pull the Therapy Carrot into the hand to the greatest diameter comfortable for the patient. Note which number is visible at the index and at the little finger. These numbers will be used to track progress and to ensure consistency of placement.

B. Use of Placement Wand

1. Thread loop at end of Therapy Carrot through the eye in the placement wand, as shown below.

2. Gently slide the Placement Wand and the attached Therapy Carrot through the patient’s clenched fist. (Note: To protect the patient, the loop is designed to detach if therapist or nurse pulls too hard.) The wand and loop merely assist in placement.

3. Continue to pull gently until resistance is felt. The patient should not experience pain. Pain is an indication that you may have used the Large Green Carrot when the patient needs the Small Orange Carrot. Stretch or back the device out until you settle on a comfortable diameter.

Use: Once the Therapy Carrot has been positioned in the hand, note which number is visible at the little finger or at the index finger. You will track progress by observing an increase in the number visible when the Therapy Carrot is correctly placed.

When comfortably placed, this device can be safely worn for several hours at a time. It is imperative that you establish a wearing schedule and that the skin is consistently monitored for signs of rubbing. Discontinue use if redness appears.

Care: Device needs regular washing. Cold water is recommended. Air dry.

To Reorder:

#51024 Small Orange Carrot Kit  
#51025 Large Green Carrot Kit  
#52526 Light Blue Carrot, one size kit  
#51026 Six Replacements Sm. Orange  
#51027 Six Replacements Lg. Green  
#52527 Six Replacements, Light Blue, one size  
#51028 Replacement Wands, 25/pk  
#52315 Replacement Wands, 25/pk, 14 pk/cs