# A Manualized Approach to Implementing Constraint Induced Movement Therapy (CIMT) using a Camp Model

Heather Roberts, PhD, OTR
Angela Shierk, PhD, OTR

Texas Scottish Rite Hospital for Children
Texas Woman's University

Introduction and Purpose of the Guide

This guide describes and defines the manualized process utilized to implement constraint induced movement therapy (CIMT) in a camp model. The camp-based CIMT program described in this guide was developed for children with hemiplegic cerebral palsy (hCP) ages 5-12 years as part of research study conducted at Scottish Rite Hospital for Children in collaboration with Texas Woman's University. Operationalizing the primary components of CIMT in a camp-based model is needed to re-create the protocol for future research studies and to translate the intervention into clinical practice.

The first part of the guide provides an overview of the evidence-based components of pediatric CIMT. This is followed by an explanation and examples of the key elements of the camp-based CIMT program including a fidelity checklist for implementing CIMT using a camp model. Next, are practical tools to be used to prepare for a CIMT camp. Lastly, there is information on training the interventionists that will assist with implementing CIMT in a camp model.

It is important to understand the environmental and staffing requirements needed to implement a camp-based CIMT program. If you are planning to use this model as part of a research protocol or implement the program in a clinical setting, we encourage you to work with your institution and adapt the process as needed to meet your institutions regulatory requirements and site-specific needs.

We hope you find this guide useful. If you have any questions, please contact us at:

Heather Roberts
hroberts3@twu.edu

Angela Shierk
angela.shierk@tsrh.org

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## What is P-CIMT?

Pediatric constraint induced movement therapy (P-CIMT) is a non-invasive, intensive intervention based on motor learning principles aimed to improve upper limb function for children with hCP. Children with hCP develop “developmental disregard” (Hoare 2007) of the impaired extremity due to the damage on one side of the brain. Developmental disregard is defined “as a failure to use the potential motor functions and capacities of the affected arm and hand for spontaneous use in daily life” (Houwink et al. 2011). P-CIMT involves restraining the non-involved limb for a period of time and providing structured practice that incorporates the concept of "shaping". Shaping is a strategy wherein tasks are introduced at a rate that promotes success while the difficulty of the task is slowly increased with the ultimate goal of increasing the use of the affected limb (Eliasson et al 2005).

Several studies have documented positive benefits of CIMT in children (Eliasson et al. 2005, Charles et al. 2006, Huang et al. 2009, Hoare et al. 2007, Aarts et al. 2010, Nasciemento et al. 2009). Within the study designs, there is a great deal of variation in the types of constraint worn, the duration of the intervention, the outcome measures used to determine the effectiveness, the age of the children, and the intervention environment. The following two pages provide a summary of factors that should be considered when developing and implementing a CIMT program (Landesman Ramey, Coker-Bolt, & DeLuca, 2013).

# Summary of Key Components of P-CIMT

## Age and Characteristics

Consider:

- Age of the child

  Literature shows effectiveness from as early as 7 months to teen years

- Time spent awake
- Attention level for participation in repetitive task

## Type of Constraint

Wide variation of constraint types are reported in literature.

Common examples: cast, soft mitt or glove, sling, arm immobilizer splint, volar splint with a glove or puppet, ulnar gutter splint with coban on hand, verbal/physical cues

***Constraint needs to prevent grasp and reduce sensory input of the stronger arm

## Dosage

Dosage including intensity and duration varies greatly in literature.

Signature P-CIMT: 6 hours of daily practice 5-6 days per week for 21 days

mP-CIMT range from 1-3 hours per day for a total of 30-124 hours (to show a change in motor patterns)

Flexibility in scheduling is based on the child's needs

## Continuous vs Intermittent

Continuous casting
Intermittent constraint: removable constraint

Considerations: age of child, frustration tolerance, needs of the child, ability for therapist to create a just right challenge

## Summary of Key Components of P-CIMT

### Treatment Providers

Therapists, trained professionals, and caregivers

Teachers, aides, nurses, students, and parents can decrease the cost and increase access to treatment

Non-therapists need ongoing training and support

Watch for signs of stress from parents providing treatment

### Treatment Environment

Signature P-CIMT programs are in a home-based or simulated home-based environment

Reduces disruption in routine, allows for carryover

Other environments: inpatient, outpatient, schools, day care, community settings

### Shaping, massed and varied repetitive task practice

Based on therapy goals

Consider:

- Number and type of activities shaped
- Types and schedules of reinforcement used
- How often activities are shaped
- Number of activities practiced
- How often activities are practiced

### Post-CIMT Planning

Which unilateral goals need continued work?

Which bilateral goals need continued work?

Communication to parents

Future planning with other professionals

*Landesman Ramey, S., Coker-Bolt, P., & DeLuca, S. C. (Eds.). (2013).*

Summary of Key Components of P-CIMT

## Benefits of Group Intervention and Considerations

Providing occupational therapy intervention in a group setting is a common and integral part of occupational therapy practice (Higgins et al., 2015). Providing intervention in a group setting has the following potential benefits (Hammond et al., 2015):

1. the benefit of peer interactions
2. providing a sense of support
3. enhancing motivation and decreasing social isolation
4. improve coping and mood (Gauthier et al., 1987).

For some treatments, delivery in a group model may be as effective or even more effective than individual treatments (Trahey, 1991; Kurasik, 1967).

The main challenge of implementing intervention in a group setting is managing the varied functional levels and individual needs across group members. For camp-based CIMT, it is important to screen patients for appropriateness to attend camp including:

1. the ability to follow directions

   Campers need to be able to follow at a minimum one step directions.

2. social skills

   Campers need to be able to participate in a group setting including socially appropriate behavior and interactions to participate in group games and activities.

3. behavioral support needs

   Campers need to be able to follow a routine and easily transition from one task to another taking into consideration the physical, sensory, and social requirements of camp.

4. child's hand function

   Ideally the camper is a MACS I-III with at least 20 degrees of active wrist movement and the ability to maintain hold of an object.

5. daily bimanual performance goals

   At least some of the camper's goals for daily performance (based on the COPM) should be in line with the group bimanual goals practiced daily as part of the CIMT transfer package (see page 18).

# Assessment Protocol

The following presents the assessment protocol used for the camp-based CIMT study. Participants in the CIMT camp were evaluated prior to camp and post-camp. Researchers offered an optional study visit to all participants for a six-month post-camp assessment. The following presents an overview of the assessment protocol.

*Assessment of Body Function/Structure*

**Modified Ashworth Scale**: The Modified Ashworth Scale quantifies increased muscle tone as the degree of resistance to passive stretch on an ordinal scale of 0-4 (lower score represents less spasticity) (Bohannon & Smith, 1987). The muscle groups tested in the CIMT camps included elbow flexors, wrist flexors, and finger flexors of the involved upper extremity.

**Modified Tardieu Scale**: The Modified Tardieu Scale measures spasticity by performing passive stretch at two velocities (fast and slow) providing the rater with a spasticity angle and spasticity grade. The spasticity grade is rated on an ordinal scale of 0-4 (lower score represents less spasticity) (Gracies et al., 2010). Muscle groups tested in the CIMT camps included elbow flexors and wrist flexors of the involved upper extremity.

**Active and Passive Range of Motion**: Active and passive range of motion was measured at the following joints; finger MCP extension, thumb position (open, close, in palm), wrist flexion and extension, forearm supination, elbow flexion and extension and shoulder flexion, and abduction for the involved upper extremity.

**Proprioception**: Proprioception was evaluated using five trials each of passive movement of the index MCP joint and the wrist by the investigator with the participant's vision occluded (Cope et al., 2010).

**Stereognosis**: Stereognosis was evaluated using 10 common objects (ball, spoon, coin, paper clip, rubber band, scissors, toothbrush, crayon, paintbrush, and block). With vision occluded, participants were asked to identify the object using their hand (Klingels et al. 2010, Feys et al. 2005).

**Grip Strength**: Grip strength was measured using a JAMAR hand dynamometer model number (Model PC-5030J1) according to the manufacturers' instructions. Participants will be assessed for a maximum voluntary contraction during three trials for hand grasp with the arm adducted and elbow flexed at 90 degrees.

**Assessment Protocol Continued**

*Assessment of Activity and Participation*

**The Assisting Hand Assessment (AHA):** The AHA (Krumlinde-Sundholm & Eliasson, 2003) is a valid and reliable 22-item measure that assesses the assisting or affected hand in carrying out bimanual activities for children with cerebral palsy or obstetric brachial plexus palsy aged 18 months to 12 years. The AHA was selected to measure bimanual performance (Krumlinde-Sundholm & Eliasson 2003). The majority of the activity domains and the levels of progression presented on pages 19-34 of this manual are based on the items presented in the AHA.

**The Melbourne Assessment of Unilateral Upper Limb Function (MUUL)**: The MUUL (Johnson et al.1994) is a valid and reliable tool for evaluating quality of upper limb movement including movement range, accuracy, dexterity, and fluency in children with neurological conditions (cerebral palsy) aged 2.5-15 years. The MUUL was chosen to assess quality of unilateral hand function (Johnson et al. 1994).

**Canadian Occupation Performance Measure (COPM):** The COPM (Law et al. 1990) is an individualized and client-centered outcome measure designed for use by occupational therapists to detect change in a client's self-perception of occupational performance over time. The COPM is a valid and reliable tool designed for use with clients with a variety of disabilities and across all developmental levels.

**The Participation and Environment Measure for Children and Youth (PEM-CY):** The PEM-CY (Coster et al., 2012) measures participation of children and youth in the home, school, and community, along with environmental factors within each setting. It is able to measure participation and the environment at the same time.

## Assessment Protocol

**Pre- camp assessment**
(2 hours, constraint fabricated)

**Post-camp assessment**
(1 ½ hours)

**6 month follow up**
(1 ½ hours)

Body Function and Structure

Activity and Participation

**Body Function / Structure**

- Passive range of motion
- Active range of motion
- Tardieu
- Modified Ashworth
- Stereognosis
- Proprioception
- Grip strength

**Activity / Participation**

- Assisting Hand Assessment
- Melbourne Assessment
- Canadian Occupational Performance Measure
- PEM-CY

| Name: | | | Date of Birth: | | | Age: | | |
|---|---|---|---|---|---|---|---|---|
| Date of Assessment | | | | | | | | |
| Pre-Camp: | | | MACS | | | | | |
| Post-Camp: | | | | | | | | |
| 6 Month: | | | | | | | | |
| Active Range of Motion | Left Upper Extremity | Pre-Camp | Post-Camp | 6 month | Right Upper Extremity | Pre-Camp | Post-Camp | 6 month |
| | thumb, in palm, close, open | | | | thumb, in palm, close, open | | | |
| | finger extension - wrist extension, neutral, | | | | finger extension wrist extension, neutral, | | | |
| | Wrist Extension | | | | Wrist Extension | | | |
| | Supination | | | | Supination | | | |
| | Elbow Extension | | | | Elbow Extension | | | |
| | Elbow Flexion | | | | Elbow Flexion | | | |
| | Shoulder Flexion | | | | Shoulder Flexion | | | |
| | Shoulder Abduction | | | | Shoulder Abduction | | | |
| Passive Range of Motio | Left Upper Extremity | Pre-Camp | Post-Camp | 6 month | Right Upper Extremity | Pre-Camp | Post-Camp | 6 month |
| | Wrist Extension | | | | Wrist Extension | | | |
| | Wrist Flexion | | | | Wrist Flexion | | | |
| | Supination | | | | Supination | | | |
| | Elbow Extension | | | | Elbow Extension | | | |
| | Elbow Flexion | | | | Elbow Flexion | | | |
| | Shoulder Flexion | | | | Shoulder Flexion | | | |
| | Shoulder Abduction | | | | Shoulder Abduction | | | |
| Therapist Signature Pre: | | | Therapist Signature Post: | | | Therapist Signature 6 month: | | |

Body Function and Structure Assessment Documentation

| Modified Tardieu Scale | Left Upper Extremity | Pre-Camp | Post-Camp | 6 month | Right Upper Extremity | Pre-Camp | Post-Camp | 6 month |
|---|---|---|---|---|---|---|---|---|
| | Elbow Flexors | | | | Elbow Flexors | | | |
| | Elbow Flexor Angle | | | | Elbow Flexor Angle | | | |
| | Wrist Flexors | | | | Wrist Flexors | | | |
| | Wrist Flexor Angle | | | | Wrist Flexor Angle | | | |
| 0 = no resistance throughout passive movement | | | | | | | | |
| 1 = slight resistance throughout passive movement | | | | | | | | |
| 2 = clear catch at precise angle, interrupting passive movement, follow ed by release | | | | | | | | |
| 3 = fatigable clonus (less than 10 seconds w hen maintaining pressure) occurring at precise angle, follow ed by release | | | | | | | | |
| 4 = unfatigable clonus (more than 10 seconds w hen maintaining pressure) occurring at a precise angle | | | | | | | | |
| **Modified Ashworth Sca** | **Left Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** | **Right Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** |
| | Elbow Flexors | | | | Elbow Flexors | | | |
| | Elbow Angle | | | | Elbow Angle | | | |
| | Wrist Flexors | | | | Wrist Flexors | | | |
| | Wrist Angle | | | | Wrist Angle | | | |
| | Finger Flexors | | | | Finger Flexors | | | |
| 0 = no increase in muscle tone | | | | | | | | |
| 1 = slight increase in muscle tone, manifested by catch and release or by minimal resistance at the end of the ROM | | | | | | | | |
| 1+ = slight increase in muscle tone, manifested by catch, followed by minimal resistance throughout the remainder (less than half) of the ROM | | | | | | | | |
| 2 = more marked increase in tone, through most of ROM, but affected part is easily moved | | | | | | | | |
| 3 = considerable increase in muscle tone, passive movement difficult | | | | | | | | |
| 4 = affected part(s) rigid in flexion or extension | | | | | | | | |
| Therapist Signature Pre: | | Therapist Signature Post: | | | Therapist Signature 6 month: | | | |

Body Function and Structure Assessment Documentation

| Proprioception | Left Upper Extremity | Pre-Camp | Post-Camp | 6 month | Right Upper Extremity | Pre-Camp | Post-Camp | 6 month |
|---|---|---|---|---|---|---|---|---|
| | Index Finger | | | | Index Finger | | | |
| | trial 1 | | | | trial 1 | | | |
| | trial 2 | | | | trial 2 | | | |
| | trial 3 | | | | trial 3 | | | |
| | trial 4 | | | | trial 4 | | | |
| | trial 5 | | | | trial 5 | | | |
| | total | /5 | /5 | /5 | | /5 | /5 | /5 |
| | Wrist | | | | Wrist | | | |
| | trial 1 | | | | trial 1 | | | |
| | trial 2 | | | | trial 2 | | | |
| | trial 3 | | | | trial 3 | | | |
| | trial 4 | | | | trial 4 | | | |
| | trial 5 | | | | trial 5 | | | |
| | total | /5 | /5 | /5 | | /5 | /5 | /5 |
| **Stereognosis** | **Left Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** | **Right Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** |
| | object 1 | | | | object 1 | | | |
| | object 2 | | | | object 2 | | | |
| | object 3 | | | | object 3 | | | |
| | object 4 | | | | object 4 | | | |
| | object 5 | | | | object 5 | | | |
| | object 6 | | | | object 6 | | | |
| | object 7 | | | | object 7 | | | |
| | object 8 | | | | object 8 | | | |
| | object 9 | | | | object 9 | | | |
| | object 10 | | | | object 10 | | | |
| | total | /10 | /10 | /10 | total | /10 | /10 | /10 |
| **Grip Strength (pounds)** | **Left Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** | **Right Upper Extremity** | **Pre-Camp** | **Post-Camp** | **6 month** |
| | trial 1 | | | | trial 1 | | | |
| | trial 2 | | | | trial 2 | | | |
| | trial 2 | | | | trial 2 | | | |
| | average | | | | average | | | |
| See Formal Assessments for COPM, MA2, and AHA Scores | | | | | | | | |
| Therapist Signature Pre | | | | | | | | |
| Therapist Signature Post | | | | | | | | |
| Therapist Signature 6 mo | | | | | | | | |

## Body Function and Structure Assessment Documentation

| Example of Camp-Based CIMT Schedule | |
|---|---|
| 9:00 - 9:30 | Bimanual Stations |
| 9:30-9:45 | Put splints on<br>Morning circle and prep for outside (Bug spray, sunscreen, water, etc.) |
| 9:45-10:30 | Gross Motor Outside Activities – 15 minutes per activity<br>Activity 1: Focus on upper arm movement / shoulder<br>Activity 2: Focus on reach (elbow extension)<br>Activity 3: Free play on playground or grass area |
| 10:30-10:45 | Bathroom break, wash hands, transition Inside |
| 10:45-11:30 | Lunch |
| 11:30-1:45 | Fine Motor Stations - 15 minutes per station<br>1. Chooses assisting hand craft (do not include elements that require two hands or require coloring/drawing with the involved upper limb, the dominant (restrained) arm/hand can help stabilize)<br>2. Sensation (proprioception or stereognosis)<br>3. Stabilizes / holds<br>4. Grasp / release<br>5. Grasp / release<br>6. Manipulates<br>7. Finger movements / thumb opposition / grip and pinch strength<br>8. Supination, wrist extension<br>9. Talent show practice |
| 1:45-2:00 | Bathroom break, wash hands |
| 2:00-2:15 | Snack |
| 2:15 - 2:55 | Group activity: strategy games (board games, work bins) |
| 2:55-3:00 | Treasure chest and dismissal |
| All day | Campers spend 30 minutes each day on the ArmeoSpring Pediatric |

## Explanation of Camp Schedule

**Bimanual Stations:** Stations are set up for the group based on common bimanual daily performance goals identified from data collected using the COPM (see page 18 for additional information). The campers rotate to the different stations to work on two handed activities during the first 30 minutes of camp to help transfer skills learned during unilateral task practice while wearing the constraint.

**Constraint:** The constraint is long arm ulnar gutter splint fabricated out of aquaplast. It starts under the shoulder and extends to the fingertips, with the elbow flexed at 90 degrees. It is secured with vel-foam strapping and self-adherent wrap around the hand.

**Preparing for the Day and Morning Circle:** The campers put constraints on and prepare to go outside. This includes putting on sunscreen and filling water bottles. Morning circle time can be used to help the campers build rapport with each other by including activities such as, learning the name of campers and interventionists or playing group social games. Morning circle can also be used to discuss camp procedures and rules. On the first day of camp, the interventionists typically put on a skit to teach the campers the camp rules (see page 43) and introduce the pirate theme for camp.

**Outside Gross Motor Activities and Fine Motor Stations:** The outdoor gross motor activities and fine motor stations are aimed to work on areas of arm/hand function that are typically difficult for children with hCP. Each of the activity domains worked on during the gross and fine motor stations are assessed in the assessment protocol. Because the primary goal of CIMT is to improve bilateral hand function, there is an emphasis on unilateral task practice with the assisting hand of activity domains that are needed for bilateral hand use (Krumlinde-Sundholm, et al, 2007). While the constraint is on, the involved limb practices the skills unilaterally with the intention of improving its role as an assisting hand during two handed activities following constraint therapy.

Pages 19-34 of this manual provide charts of each activity domain that are focused on during the camp-based CIMT program. Each chart describes the activity domain using three levels of skill progression with level A being the least complex and level C the most complex skill to perform. Next on the chart is an example of an activity that could be implemented into a camp-based CIMT program that focuses on the activity domain and strategies that can be used by interventionists to shape the activity to give a just-right challenge to the camper. Campers may need to work at different levels of the skill on different days depending on the specific task requirements of each activity. It may be helpful for the interventionists to have a copy of the levels of skills and strategies with them as they work with the campers at each station. Different activities are used each day of camp at each station to keep the campers engaged and motivated to work on the

activity domains. Overall, the levels of progression were developed to assist interventionists provide a just-right challenge during each camp activity.

**Bathroom Breaks:** Campers remove their constraint for bathrooms breaks to avoid accidents and to allow for the opportunity to wash their hands. This is also a good time for therapists to complete skin checks and adjust constraints as needed. Campers that have difficulty putting the constraint back on or request multiple bathroom breaks may need additional motivators or positive reinforcement to wear their constraint.

**Lunch:** Campers wear their constraints during lunch. It is important to ask parents to send food that is the appropriate size or pre-cut so that the campers are able to pick up or use utensils to successfully eat. Interventionist are encouraged to sit with their camper during lunch and closely monitor frustration levels and ensure success with eating their lunch. Interventionists should sit on the camper's involved side so they can easily assist with tasks as needed. Interventionists may need to open packages and assist with set up at the beginning of lunch. It is helpful to have the following supplies during lunch: straws, cups, plates, napkins, baby wipes, utensils, built up handles, and coban. Campers will need different amounts of time to eat lunch and may need a variety of seatng options (blanket on floor, small table, etc). Using a distraction, such as watching a movie, during lunch can help decrease frustration and provide all campers ample time to complete their meal.

**Snack:** Snacks consist of simple foods to work on grasp/release (pretzel rods, fruit snacks, cut up fruit, cheese cubes, etc). Consider ways to adapt for a child that does not have a radial grasp pattern, such as putting the food on a fork with a built-up handle. Snacks can also be theme based if it increases the campers' motivation to participate.

**Strategy Games:** A variety of strategy games and board games are used at the end of the day to work on problem solving and continue to work on upper limb motor patterns. The ability to problem solve or identify a successful strategy is an important skill to work on because children with upper limb impairments will frequently need to modify and adapt tasks on their own for successful completion. The campers work with their interventionist to select a game that is appropriate. Campers often enjoy the social aspect of playing the games in small groups.

**Treasure Chest and Dismissal:** A token economy system is used each day at camp. Campers earn tokens as the complete tasks/stations. Interventionists establish the rules of the system with their camper as some campers need more frequent positive reinforcement than others. The overall intention of using the token economy system is to increase motivation to participate. Campers place earned coins in small treasure boxes and trade their coins in for a small prize at the end of the day. For campers that are not motivated by the token system, additional motivators may need to be explored and incorporated directly into the camp activities (ex: the camper likes cars, incorporate

cars into the task). The primary strategy to decrease negative behaviors and encourage participation is to make activities and the camp environment fun and interactions with the child positive and encouraging.

**ArmeoSpring Pediatric:** The Armeo®Spring is an exoskeleton connected to a virtual reality training environment. The device offers various self-initiated repetitive therapies to increase the patient's range of motion and selective control. The self-directed exercises motivate the patient to exert intense levels of both concentration and coordination. The ergonomic and adjustable arm support is an exoskeleton with integrated springs. It embraces the whole arm, from shoulder to hand, and counterbalances the weight of the patient's arms, enhancing any residual function and neuromuscular control, and assisting active movement across a large 3-D workspace. The pressure sensitive handgrip is not only an input device for exercises, but is also a computer interface for the software and computer games, and can be removed for functional training of real life tasks.

The Armeocontrol for the Armeospring contains an extensive library of game-like movement exercises supported by a virtual-reality training environment that is both motivating and informative, clearly displaying the functional task along with immediate performance feedback. The motivating and self-initiated exercises include proximal and distal components, specifically related to:

- Grasp and release
- Pronation/supination
- Wrist flexion/extension
- Reach and retrieval function

Besides functional exercises, the system contains exercises specifically designed to assess the motor ability and coordination of patients. Built-in sensors record the active arm movement at each joint during all therapy sessions and the performance data is stored in the computer, where it can be used to assess and document the patient's progress. This will determine the next appropriate challenge and to promote the optimum therapy and best possible outcomes. The ArmeoSpring is part of the research protocol, but can be removed from the camp schedule if it is not available.

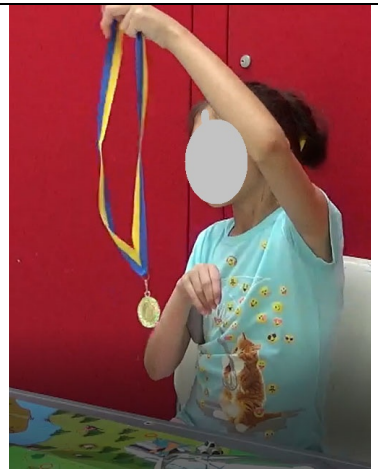
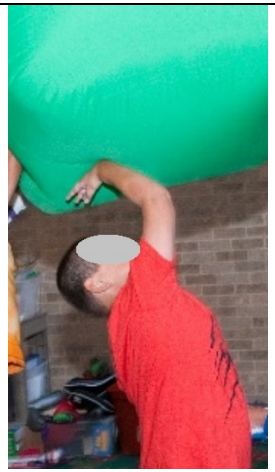
**Organization of Materials:** Materials for the camp are organized in totes according to material type (fine motor, bimanual, themed supplies, etc). Supplies for each day of camp are pulled from the totes and organized into stations. At the end of the day, the supplies are returned to the totes. This allows for the same materials to be utilized multiple times during the camp, which reduces costs. The system also keeps the supplies orderly and accessible to all interventionists when they are needed.

## Bimanual Stations

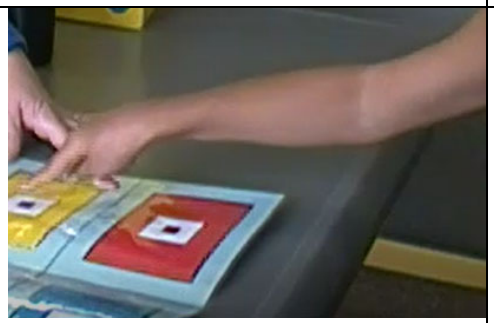
The bimanual goal stations were determined based on 152 camper goals (48% self-care, 31% productivity, 21% leisure) that had a 2 point or greater change in performance score from pre to post CIMT camp. The goals were further categorized with 15 goal types emerging including 7 in self-care, 3 in productivity, and 5 in leisure. The goal types became the bimanual stations set up each day at camp and are listed in the table below ranked from most common to least common. Examples of supplies used at each station are also listed in the table.

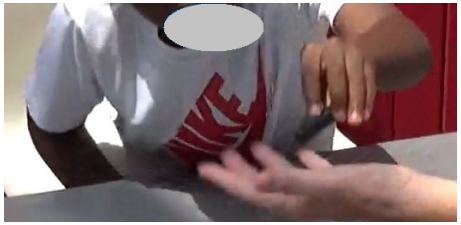
| Goal Type / Bimanual Stations | Examples of Supplies |
|---|---|
| 1. Socks/braces/shoes/tying | Campers use their own shoes, socks, braces, or practice shoes with different types/colors of shoe laces, larger sized socks can be used |
| 2. Fasteners | Campers can bring in their own jackets, pants, shirts, or dressing boards and vests can be used |
| 3. Related to eating: carry tray/open packages/simple meal prep | Cafeteria trays, containers, zip lock bags, ketchup packages, no bake box kits, mixing bowls, spoons, bread, peanut butter, jelly, knives, cereal, milk |
| 4. Ball skills | Balls of different sizes and weights, basketball hoop, hula hoop |
| 5. Managing school materials | Paper, crayons, pencils, pencil bag/box, scissors, cutting practice papers, locker lock, backpack, lunch box |
| 6. Household chores | Broom, vacuum, laundry to fold (towels, shirts, socks), pet dish/pet food |
| 7. Cutting food | Knife, fork, built up handles, playdoh or putty to practice cutting |
| 8. Brushing teeth | Toothbrushes, toothpaste, cups |
| 9. Using a bat/hockey stick | Bat, t-ball set, hockey stick/puck, golf putter/ball |
| 10. Dressing (pant/shirt) | Campers bring their own clothes to practice, theraband to simulate putting pants on |
| 11. Grooming | Campers bring brushes, hair ties; wash cloth or wet wipes to wash face |
| 12. Using rope/reins | Jump ropes |
| 13. Dance/cheer | Music, pom poms |
| 14. Eating with the assisting hand | Finger foods to practice (ex: popcorn), corn on the cob holders, foam (to simulate corn) |
| 15. Video games | Video game system and games (Wii, xbox) |

## Unilateral Activity Domains and Shaping

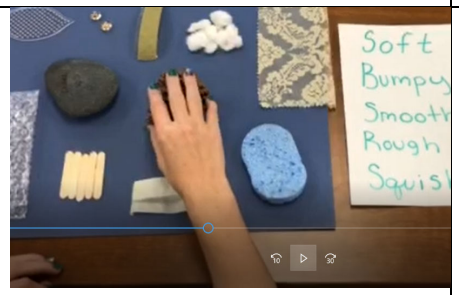
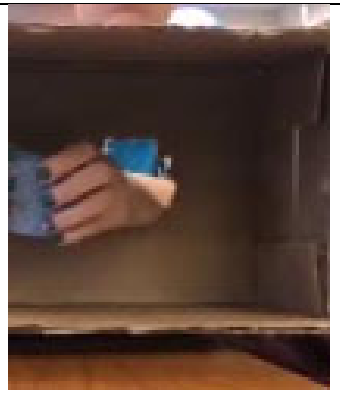
| Activity Domain | **Upper Arm Movements: varied movements of the shoulder** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Shoulder AAROM<br>Abduction/flexion/ER<br>To use during activities<br>(will often have the movement, but does not use it) | Shoulder AROM<br>Abduction/flexion/ER<br>To use during activities<br>(will often have the movement, but may not use it) | Shoulder strength<br>Abduction / flexion / ER<br>With resistance (added weight or push against an item) |
| |  |  |  |
| Activity Example | Swat the fly - use hand or a fly swatter to hit/squish pretend flies attached to the wall | | |
| Strategies / what the therapist does | Assist with movement, use place and hold, move to gravity eliminated position | Active movement with increased repetition, more range | Add resistance or weight (wrist weight, theraband) |

Unilateral Activity Domains and Shaping

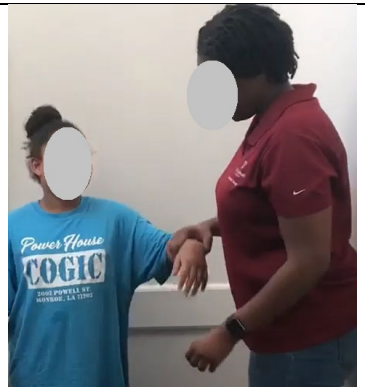
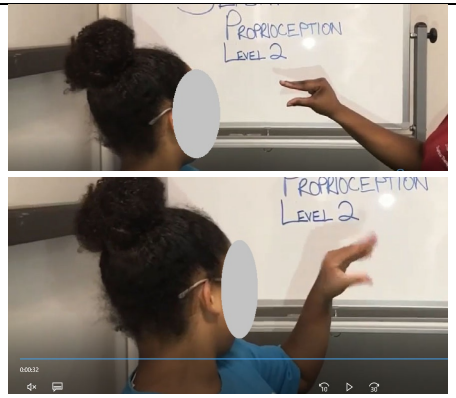
| Activity Domain | **Reaches: extends arm away from body to make contact or grasp an item** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Reaches with gross contact | Reaches with refined contact (index finger) and accuracy | Reaches with grasp |
| |  |  |  |
| Activity Example | Consider and vary planes of movement/distance (flexion/abduction/across midline/overhead) Paper towel tube towers (paper towel tubes standing up with light weight balls sitting on top). Level 1 knocks them over, level 2 pushes them over in different directions (and/or isolates index finger), level 3 grasps the balls off of the top of the tubes without the tubes falling over | | |
| Strategies / what the therapist does | Encourage the child to purposefully use their arm away from their body by reaching out and touching an item | Encourage child to reach and carefully touch or press an item with the hand or isolated index finger, monitor compensatory trunk movements | Encourage the child to reach out and grasp an item; vary the size and weight of items grasped, monitor compensatory trunk movements |

| Activity Domain | **Chooses Assisting Hand: child's interaction with items placed on the involved side** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Touches item on involved side, crosses midline to touch item on dominant side | Grasps item on involved side placed close to body and releases to dominant side | Grasps item on involved side placed away from body (needs to reach) and moves to dominant side |
| |   |   |   |
| Activity Example | Paint the pirate ship – paints on a pallet (level 1 uses fingers, level 2 uses thick paint brush, level 3 uses a cotton ball attached to a clothespin and has to reach for item) | | |
| Strategies / what the therapist does | Set the supplies up on the child's involved side; cue child to use the non-dominant hand to touch/select the items | Set the supplies up on the child's involved side; cue child to use the non-dominant hand to grasp/select the items | Set the supplies up on the child's involved side (vary distance); cue child to use the non-dominant hand to use a "pincher" grasp to select the items |

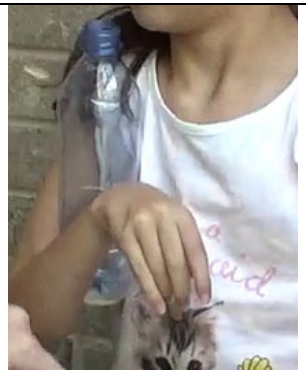
Unilateral Activity Domains and Shaping

| Activity Domain | **Sensation – Stereognosis: the ability to feel and identify items without vision** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Identifies physical properties (hot/cold, hard/soft) of items | Identifies objects by matching to an identical object | Verbalizes object without visual stimuli |
| |  |  |  |
| Activity Example | Guess what is in the bag? | | |
| Strategies / what the therapist does | Therapist provides training on ways to describe what an object feels like, allows child to explore different objects and their properties | The child feels an object with vision occluded and then the child matches it to 1 of the physical item choices and then progresses to matching items to a picture | The child feels an object with vision occluded and verbally identifies the object |

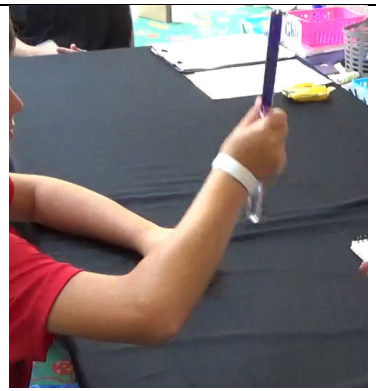
Unilateral Activity Domains and Shaping

| Activity Domain | **Sensation – Proprioception: ability to recognize where the upper limb is in space** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Mimics movement after physical placement | Mimics movement after demonstration | Mimics movement from picture/verbal commands |
| |  |  |  |
| Activity Example | Play Simon Says | | |
| Strategies / what the therapist does | Therapist moves the upper limb into a position and asks the child to hold and remember the position. Return the arm to a relaxed state and then ask the child to repeat the movement | Therapist demonstrates a movement of the upper limb (using their own arm/hand) and asks the child to repeat the movement. | Therapist provides a picture of another child/person with their upper limb in a specific position and asks the child to demonstrate the movement. |

## Unilateral Activity Domains and Shaping

| Activity Domain | **Stabilizes: ability to stabilize an item against, body, surface or with grasp (this item is combined station with holds)** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Stabilizes item with arm/body (chest, lower extremity) | Stabilizes item against a surface | Stabilizes an item using grip |
| |  |  |  |
| Activity Example | Stabilizes a moving item, such as a bumble ball or maintains stabilization of an item when challenged (therapist pushes, pulls, moves item) | | |
| Strategies / what the therapist does | Place the toy for optimal stabilization, use small degrees of change to challenge stabilization (pushing, pulling) | Use different portions of the arm to stabilize (hand, forearm), vary size of object and degree of change to challenge stabilization | Item can be placed in the hand or grasped by the child, vary size, shape, weight of items stabilized and degree of change/movement to the item to challenge stabilization |

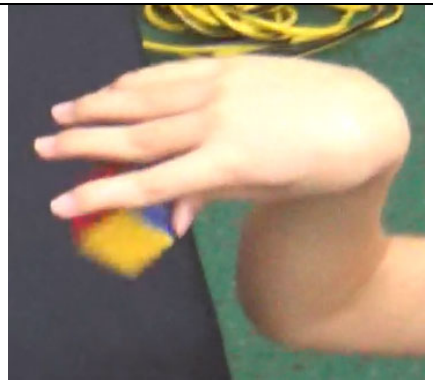
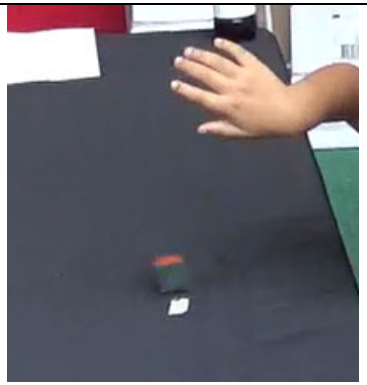
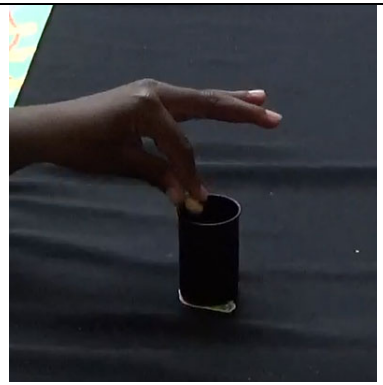
## Unilateral Activity Domains and Shaping

| Activity Domain | **Holds: ability to keep an item in the hand (active or passive) (this item is a combined station with stabilizes)** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Holds item in hand close to body (item can be placed in hand) | Holds item in hand away from body (item can be placed in hand) | Holds item in hand with arm movement (item can be placed in hand) |
| |  |  |   |
| Activity Example | Egg race: child holds a spoon with an egg on it and carries from one end of the room to the other | | |
| Strategies / what the therapist does | Help position the item in the child's hand, allow child to keep arm close to body, provide assistance as needed | Help position the item in the child's hand if needed, ask the child to complete the task with their arm extended in front of them or to the side | Help position the item in the child's hand if needed, ask the child to move their arm up and down, or side to side as they hold the item and complete the task |

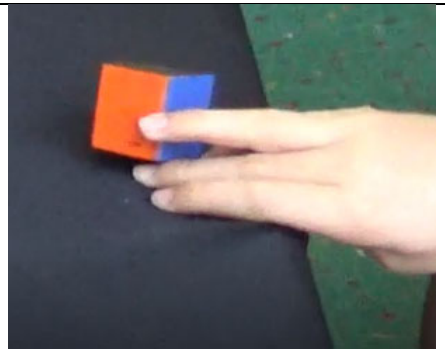
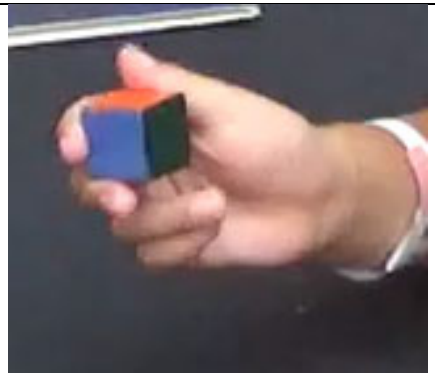
Unilateral Activity Domains and Shaping

| Activity Domain | **Grasps: ability to squeeze or pick up items from another person or surface** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Pre-grasp finger movements, raking, squeezing | Gross grasp - easy to grasp items in an easy position; begins to grade grip size and orientation of hand to accommodate need for grasp | Variable grasps - adjust/orients hand position prior to grasp, more distal finger movements, isolates radial side of hand for grasp, catches moving objects |
| |  |  |  |
| Activity Example | Find the treasure in the sand, explore the items (items in the sand will vary in size, weight, texture) | | |
| Strategies / what the therapist does | Encourage child to move items with their hand, rake items, squeeze, assist with grasp as needed, encourage holding item once in hand | Have the child pick up a variety of objects that are different sizes and textures. Progress from grasping from the therapist's hand to grasping from a surface | Have the child pick up objects using different patterns (gross, pinch, three jaw chuck). Encourage use of distal fingers and small objects. Allow child to grasp an item from the therapist if it is too difficult to grasp from the surface. Work on catching light, easy to catch items (o-ball, lufa, etc) |

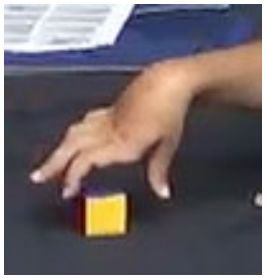
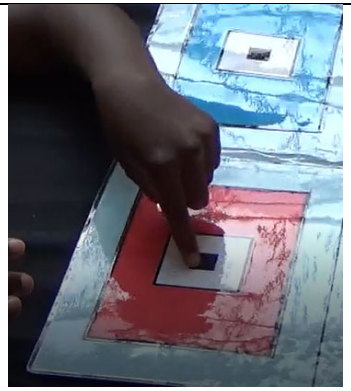
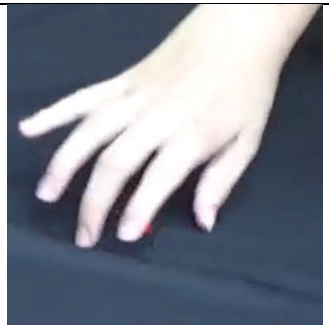
## Unilateral Activity Domains and Shaping

| Activity Domain | **Releases / Puts Downs: ability to release an item to another person or a surface** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Releases with help/compensatory movements (tenodesis/mirror) | Gross release/unrefined | Puts down with accuracy, throwing skills |
| |  |  |  |
| Activity Example | Put the fish in the tank - place different sized fish and scenery items (fish house, seaweed, small rocks) in an “aquarium” (large plastic tote) | | |
| Strategies / what the therapist does | Teaches the child how to use tenodesis pattern or mirror movements to release item, start with easy to handle items and assist with release as needed | Encourage the child to drop the items independently into a large designated area | Place items into a specific location (items and targeted area are smaller), release from a variety of grasp patterns, toss items into a container or at a target |

## Unilateral Activity Domains and Shaping

| Activity Domain | **Manipulates Objects: ability to change the orientation of an item (against a surface or in hand)** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Manipulates item against a surface (start with gross movement and move toward begins to separate two sides of the hand | Manipulates item in hand; changes position (palm to finger, finger to palm) | Manipulates item in hand with supination or multiple items |
| |  |  |  |
| Activity Example | Game with dice (provide a large foam dice for a child at level 1 to roll by pressing/swiping against the table, level 2 can use a regular dice, level 3 multiple dice | | |
| Strategies / what the therapist does | Encourage the child to change the position of the object presented using their fingers/hand | Work on moving items in the hand without dropping, start with 1 larger item and small movements / adjustments and work toward in-hand manipulation skills | Combine in-hand manipulation skills with supination (assist with supination if needed); move toward multiple items in the hand at one time |

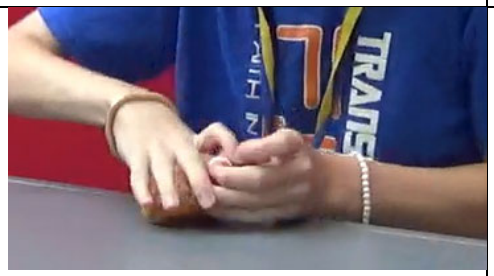
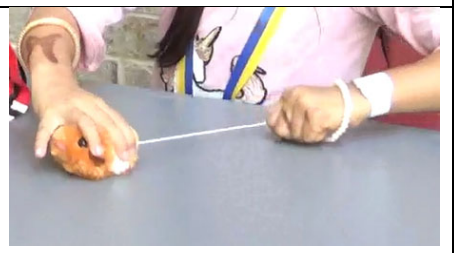
## Unilateral Activity Domains and Shaping

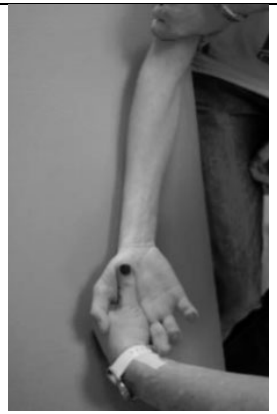
| Activity Domain | **Finger Movements: ability to flex/extend fingers and isolate finger movements** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Global flexion/extension pattern | Isolates index finger | Isolated finger movements (typing) |
| |   |  |  |
| Activity Example | Finger soccer - table top “field” drawn on paper, use a cotton ball for the ball | | |
| Strategies / what the therapist does | Moves item by starting with fingers flexed and then moves into extension; movement in primarily at the MCP joints | Moves item using flexion and extension of index finger | Moves items isolating each finger individually (flicking motion) or taps items with individual finger movements |

## Unilateral Activity Domains and Shaping

| Activity Domain | **Thumb Opposition: ability to utilize webspace or oppose thumb to index finger for grasp** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Holds items placed in webspace | Inferior pincer | Pincer, radial tip pinch |
| |  |  |  |
| Activity Example | Marble race – child places marbles in a pool noodle that has been cut in half positioned at an angle to make a ramp; children race each other to see which marble makes it to the bottom first | | |
| Strategies / what the therapist does | Therapist places the item in the webspace and encourages the child to hold it in place | Therapist encourages child to actively pick up items (from the therapist and then from a surface) using the thumb and index finger | Therapist encourages child to actively pick up items (from the therapist and then from a surface) using the distal portions of the thumb and index finger |

## Unilateral Activity Domains and Shaping

| Activity Domain | **Grip/pinch Strength: ability to use appropriate force/strength to grasp items** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Needs assist to grasp; minimal pressure/strength | Active grasp; moderate pressure/strength | Active grasp; pressure/strength comparable to dominant hand |
| |  |  |  |
| Activity Example | Squish the playdoh – playdoh rolled in different sized balls and child uses gross grasp or radial grasp patterns to squish the playdoh; different materials can be used to change is resistance – foam, clay, playdoh, theraputty with different resistance | | |
| Strategies / what the therapist does | Therapist assists child with holding an easy to grasp light weight item and encourages them to squeeze the item | Therapist encourages the child to grasp the item and squeeze using a variety of objects (size, shape, weight, resistance level) | Therapist encourages the child to grasp the item and squeeze using a variety of objects (size, shape, weight, resistance level) |

| Activity Domain | **Supination: ability to turn hand palm up during tasks** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | AAROM | AROM | Strength |
| |  |  |  |
| Activity Example | Card game that requires turning cards over | | |
| Strategies / what the therapist does | Assist with movement, use place and hold, use gravity eliminated position if needed; work on PROM as needed | Active movement with increased repetition, use gravity eliminated position if needed | Add resistance or weight, or therapist provides resistance to movement |

Unilateral Activity Domains and Shaping

| Activity Domain | **Wrist Extension: ability to move the back of the hand up at the wrist** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | AAROM | AROM | Strength |
| |  |  |  |
| Activity Example | Ping pong ball 3 in a row – child uses wrist extension to roll a ping pong ball off of the table onto a game board and tries to get three balls in a row on the game board (forearm is stabilized and hand is positioned in gravity eliminated position) | | |
| Strategies / what the therapist does | Assist with movement, use place and hold, use gravity eliminated position if needed; work on PROM as needed | Active movement with increased repetition, use gravity eliminated position if needed | Add resistance or weight, or therapist provides resistance to movement |

| Activity Domain | **Changes Strategy: ability to adapt performance when the anticipated result is not achieved** | | |
|---|---|---|---|
| | **Level A** | **Level B** | **Level C** |
| Skill Progression | Changes strategy with demonstration | Changes strategy with verbal cues | Changes strategy independently |
| |  |  |  |
| Activity Example | Strategic board game (Sequence for Kids, Blokus) or STEM boxes / task boxes | | |
| Strategies / what the therapist does | Partner with the child and demonstrate how to play the game or complete the task; child will mimic actions of the therapist | Provide verbal cues, questions to prompt an adaptive response to complete task | Continue to increase complexity of task/game |

Unilateral Activity Domains and Shaping

## Example of an Activity Letter

At the end of each day of camp, the campers are given a newsletter that has a summary of the activities of the day and reminders for the next day to give to their parents. This is an example of the daily newsletter.


July 16

TODAY AT PIRATE CAMP...

- Goal work
- Group game
  - Musical islands
- Outside activities
  - Sink the ship relay
  - Cannon ball toss
  - Find the treasure
- Craft
  - Popsicle stick boats
- Fine motor games
  - Cotton ball cannon shooter
  - Treasure bottle
  - Making flag and mixing jello
- Gross motor games
  - Streamer obstacle course
  - Pirate hook ring toss
  - Treasure hunt for jewels
- Snack
  - Cheese and apple boats with jello water and goldfish
- Closing game
  - Pirate charades
- Treasure chest

**Reminders for tomorrow: Bring a water bottle, sunscreen and lunch**

Example of Activity Letter

# Final Day at Camp

The final day at camp is focused on:

1. transferring newly learned unilateral hand skills into bimanual tasks
2. creating a positive and memorable peer experience
3. celebrating the work that has been accomplished at camp

**The campers do not wear their constraint on the final day at camp.**

The day begins with the typical bimanual stations. Outside activities are fun bimanual tasks centered around a theme (i.e water day or Olympic games). The outdoor games are followed by a pizza party and preparation for the talent show. At the end of the day the campers' family members attend a Pirate Party which includes a talent show, ceremony, and reception. Each camper demonstrates a newly learned skill that they gained at camp. Examples include: holding a microphone with two hands while singing, tying their shoes, putting on a puppet show, etc. Campers work with the interventionists to create their talent and create/gather supplies needed for the show. Following the talent show, campers are awarded with a certificate based on a character trait or skill that they have accomplished at camp. The camp ends with a simple reception that allows for the campers and their parents to meet and exchange information for if desired.

| Camp-Based CIMT Fidelity Checklist | |
|---|---|
| | A constraint is worn on the dominant hand |
| | Child participates in repetitive unilateral task practice with shaping<br><br>Shaping is a dynamic process that is guided by the goal of the activity, the camper's current level of performance, and guidance provided to promote progression of skill development. |
| | Gained unilateral skills are incorporated into bimanual tasks with a transfer package<br><br>Unilateral task practice consists of tasks that are aimed at improving motor patterns/upper limb function. The newly acquired skills are then transferred to functional bimanual tasks. Example: Picking up treasure (golden coins) along a path to fill a treasure box. The focus of the task is to work on grasp patterns vs the completion of filling the treasure box. The improved grasp pattern of the assisting hand is then transferred to functional tasks, such as grasping pants in order to fasten the button. |
| | Activities are in a group setting |
| | The physical environment supports a camp model<br><br>Creating a camp environment may include decorating the space to match the theme for camp, implementing a dress code that reflects a camp environment (casual dress vs medical/professional dress), promoting fun and engaging atmosphere. |
| | Breaks in work on improving upper limb motor function are used as opportunities for peer interactions and support |
| | The therapist/interventionist's approach to intervention is engaging |
| | The child's overall camp experience (socially and enjoyment) is as equally important as potential gains made in upper limb function |

# Preparing for CIMT Camp

## CIMT Timeline

1 year prior to camp: camper recruitment is ongoing during the year

3 months prior to camp: call campers' guardians to confirm attendance and set up assessment appointment

1 month prior to camp: mail appointment reminder and parent letter (see page 38), occupational therapy student elective on CIMT coursework begins

1-2 weeks prior to CIMT camp: complete pre-camp assessments, fabricate constraints, interventionist training is held

2-week CIMT camp: post camp assessments are completed on the last day of camp

6-month follow up – repeat assessments

**Interventionist Recruitment to Assist with Camp**

1. Occupational therapy students
    a. Meet university and clinical site requirements for level 1 fieldwork
2. Shadow students
    a. Students seeking hours to apply for occupational therapy programs
    b. Complete paperwork and clearance with occupational health
3. Volunteers
    a. Complete application with volunteer services
4. Student interns
    a. Recruitment of student interns working in other departments of the hospital

# Example of a Parent Letter

We are so excited to have your child attend CIMT camp!

**Information about CIMT Camp**
The camp will be held **Monday-Friday July 16-20 and July 23-27 from 9:00-3:00.**
The camp will be held in the Solarium at TSRH, which is located on the 4th floor near the B elevators. You are welcome to drop-off your camper at the main entrance. There will be students and volunteers available to greet them and accompany them to the Solarium.

Each day of camp, the kids will wear a splint (or constraint). The splints will be removed for bathroom breaks but will be on during lunch and snack time. The splints will be kept at the hospital each night.

The camp is part of an ongoing research project in the neurology department at TSRHC. The camp will consist of a variety of activities including fine motor activities, outside play, gross motor activities, arts and crafts, and a snack each day that revolve around the pirate theme.

**Items to bring to camp each day:**
**- Lunch – bring a lunch that is easy to eat with the constraint on**
**- Water bottle with your child's name on it**
**- Wear comfortable clothes and closed toe shoes**
**- Apply sunscreen prior to camp each morning. Bring additional sunscreen to apply as needed.**
**- Items to practice bimanual goals as needed**

- Friday, July 27th only will be water day. Please bring an extra set of clothes including undergarments, shoes and a towel. Your child is welcome to wear a swimsuit if they would like.

Parents and staff are invited to attend the **Pirate Party on Friday, July 27th starting at 1:30 pm** in the Auditorium at TSRHC.

Thank you!

Heather Roberts, OTR, PhD
heather.roberts@tsrh.org
(214) 559-5000

Angela Shierk, OTR, PhD
Angela.shierk@tsrh.org
(214) 559-5000

## Interventionist Help Prior to Camp

1. Occupational therapy students
    a. Prepare assessment folders
    b. Set up assessment area
    c. Review charts
    d. Assist with evaluation process
    e. Assist with making constraints
    f. Download and organize videos
    g. Scan consents and documents
    h. Complete CIMT Patient Information Sheets (pg. 9)
    i. Plan camp activities
    j. Prepare welcome skit and talent show skit
    k. Learn Armeo
    l. Create Armeo schedule
    m. Create groups and group names

2. Shadow students and volunteers
    a. Inventory and organize supplies
    b. Create shopping list
    c. Gather supplies for activities
    d. Gather supplies for group bimanual goals
    e. Make name tags for cubbies and campers
    f. Prepare crafts
    g. Create activity letters
    h. Set up camp area

# Example CIMT Camper Information Sheet

CIMT Camper Training and Communication Sheet

Name: _____

Date of Birth/Age: _____

MR#: _____

Diagnosis/history: _____

_____

Did family receive parent letter in the mail? _____

Food or drug allergies? _____

Food restrictions/limitations? _____

Medications during camp? (seizure) _____

_____

Special instructions during camp? _____

_____

OK to use regular sunscreen and bug spray? _____

**Group Bimanual Participation goals:**

Improve independence with daily living performance using two hands:

1. Self – Care: Shoe tying, buttons, zippers, brushing teeth, hair care, socks/tights, jacket, other
2. Productivity: folding laundry, making bed, sweeping/vacuuming, pet care, holding lunch tray, cutting with scissors, writing/stabilizing, other
3. Leisure: throwing/catching a ball, golf, basketball, soccer, horseback riding, holding cards/board games, other

**Group Unilateral goals:**

1. Improve grasp patterns
2. Release items with greater ease to dominant hand or to surface
3. Improve PROM/AROM – supination, wrist extension, thumb abduction
4. Improve strength – grip, pinch, endurance
5. Improve sensation – proprioception and stereognosis
6. Improve overall use of UE – spontaneous use, ease/quality of movement

Parent E-mail: _____

Emergency Contact: _____ Number: _____

Therapist Signature: _____ Date: _____

## Interventionist Training Agenda

1. Introductions

2. Watch HIPAA video and sign form

Reminders:
- no pictures, do not use cell phones during camp
- the campers are patients and identifiable data needs to be kept confidential
- never be alone with a child – always have 2 adults, especially in the bathroom and isolated areas

3. Overview and history of CIMT camp

4. Overview of Cerebral Palsy: hemiplegic CP

5. Overview of CIMT and Assessments

6. Introduce theme for camp

7. Overview of the camp schedule

8. Overview of the campers (AHA video and goals, medical history and precautions)

9. Tour: camp space, outdoor space, playground, bathrooms, water, etc

10. Working lunch:
    - discuss common bimanual goals and strategies
    - discuss common unilateral goals
        - discuss / practice shaping activities
    - discuss behavior and motivation strategies
    - discuss roles and responsibilities
    - assign roles
    - confirm schedules
    - prep activities
    - prep space for camp

## Roles and Responsibilities

**Interventionist (camp buddy):**

1. Work with campers during camp, be accountable for camper during camp – **know where they are at ALL times**
2. **Stay engaged with the campers**; remember this is an intensive intervention protocol
3. Encourage participation, help when needed, but don't do it for them
4. Know how to implement and shape the activities for the day
5. Communicate needs/concerns for the camper or from the parent to staff
6. Keep it positive
7. Make camp fun

**Activity Leaders:**

1. Plan activities for the day
2. Gather supplies needed for activities
3. Set up activities in advance (be one step ahead)
4. Give instructions for the activities
5. Keep the camp on schedule (modify as needed to keep kids engaged)

**Material Manager:**

1. Help gather supplies for each day, help with set-up and clean-up of the activities
2. Make/copy parent letters for each day
3. Create certificates for Pirate Party with interventionists
4. Help with bathroom and transition times, fill water bottles, transport to and from Armeo, play the games
5. Confirm that we have all of the materials needed for the next day of camp

**Armeo:**

1. Work with campers on the ArmeoSpring
2. Create and keep a schedule so that every camper has a turn each day
3. Rotate Armeo role and join the camp for other activities throughout the week

## Camp Rules

1. Wear your splint at all times
2. Complete all activities the best you can
3. Listen to instructions
4. Be respectful and encourage others
5. Stay with the group
6. Have fun!

### Interventionist Oversight

Morning huddle

- Review roles and expectations
- Review daily schedule / changes
- Verbal communication of significant events for previous day

Afternoon huddle

- Discuss any significant events / feedback from parents
- Feedback to interventionists
- Answer questions, receive comments from interventionists

Ongoing Feedback

- During bimanual goals
- During unilateral activities
- Behavior support

Complete formal evaluations and recommendation forms for interventionists at the end of camp

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