Therapy Together

Caregiver Manual
Contact Information

WELCOME
We are excited you are participating in Therapy Together. If you have questions, concerns, or need to contact the Therapy Together team, please don't hesitate to call or e-mail.

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ashierk@twu.edu
(806) 470-0006 cell
Therapy Together

What is Therapy Together?

Weekly Sessions

References and Resources

CAREGIVER MANUAL OVERVIEW
Therapy Together

WHAT IS IT?
Therapy Together is a group based intensive upper limb intervention for children ages 3 months to 4 years 11 months that present with cerebral palsy or are at risk for developing cerebral palsy.

The child and their caregiver attend 1 hour weekly sessions and engage in therapeutic activities at home for 1 hour each day for 8 weeks. The first 7 weeks of the program focus on constraint induced movement therapy (CIMT) where the preferred hand is restrained with a soft glove to promote use of the assisting hand. Week 8 focuses on the use of two hands together.
Therapy Together

WHAT IS IT?

Group session will focus on coaching the caregiver to implement CIMT with their child in the home environment. Each week the therapists and interventionists will teach 1-2 activity domains of upper limb function (i.e. reach, grasp). Each activity domain will include an explanation of the skill using three levels of performance. The activities will be shaped to create a just right challenge for each child that attends the session.

Activity domains addressed in previous sessions will continue to be incorporated into subsequent sessions. As the child and caregiver engage in the activities, the therapists/interventionists will demonstrate, observe and provide feedback to the child and caregiver to support the child’s success with the task.

Overall, the program aims to improve the child’s hand function, improve the caregiver’s ability to coach their child to achieve goals related to hand function while taking into consideration the individual needs of the child and caregiver. The instruction for coaching and upper limb activity practice will occur during weekly group sessions allowing participants in the program the opportunity for peer support. The majority of the upper limb practice will occur in the home environment.
Schedule and Location

SPRING 2020

Schedule
Fridays at 10:00 AM

Session 1: February 14th
Session 2: February 21st
Session 3: March 6th
Session 4: March 20th
Session 5: March 27th
Session 6: April 3rd
Session 7: April 17th
Session 8: April 24th

Location
Scottish Rite Hospital

Dallas Campus
2222 Welborn St
Dallas, TX 75219
Weekly Sessions

Information and handouts for each week
Weekly Session Overview

The TEAM Approach

**TOPIC**
Introduce the topic(s) for the session; upper limb domain(s) plus one other component of the therapy together program

**ENCOURAGE**
Sharing, processing and support (ex: What brought you here? How was last week?)

**ACTIVITY**
Focused on upper limb activity domain and caregiver coaching

**MOTIVATE**
How to implement what was learned at home, activity and toy recommendations, toy library, feedback on progress made
Week 1

Topics:
1. Welcome and review of the caregiver manual
2. Getting started and responding to the child’s cues
3. Positioning
4. Constraint
5. Toy selection

Upper limb domain: initiates use and contact with objects
HOW TO START
Prepare for the play session (pg 11). Use novel toys and demonstrations to gain the child's attention and encourage them to participate; then maintain their attention with play and a variety of toys.

HOW MUCH HELP
Allow for extra time for the child to initiate. Provide assistance when needed. Change the task if the current task is too hard or if child loses interest or becomes frustrated.

HOW TO RESPOND
Encourage the child to complete the task, but do not force them. When they are successful, reinforce and respond positively. They are working very hard.

WHEN TO STOP
Discontinue the session if the child becomes tired or uncooperative. It is okay to split up the hour of activities during the day (example: 4, 15 minute play sessions)
TOYS
Are your toys ready? (pg 16)

ATTENTION
Are distractions minimized (TV, phone, siblings)?

CHILD
Is your child ready to play (fed, clean, alert, healthy)?

PREPARING FOR THE PLAY SESSION

CONSTRAINT
Do you have a constraint that works well for your child? (pg 14)

POSITIONING
Do you have a table and chair that is suitable? (pg 12)
Positioning Rules

SITTING UPRIGHT
The child should be in an as upright and stable position as possible.

WHERE THE CAREGIVER SITS
Sit in front of the child or on the child’s involved side. The caregiver should be able to easily make eye contact with the child.

USE A TABLE
If possible, have the child sit at a table. Infant chairs or child sized tables and chairs can be used and are often a good height. If a regular sized table is used, make sure the table is not too high.
Positioning Options

- **NEEDS TO BE RECLINED**
  - Infant bouncer seat

- **NEEDS SOME SUPPORT TO SIT UPRIGHT**
  - High chair, Tripp Trapp Chair, small pillows for support

- **SITS INDEPENDENTLY**
  - Child sized table and chairs
Constraint

Infants and young children will typically reach to grasp an item with the hand that is closest to the item. When a child has difficulty feeling or moving one of their hands/arms, they will naturally compensate by using the hand/arm that is easier to use. Therefore, a constraint needs to be placed on the non-involved side to allow for opportunities for the involved hand/arm to practice skills.

The constraint at this age should be soft and comfortable. The constraint needs to prevent the child from grasping with the non-involved hand, but the hand with the constraint can be used during the play session as a support as needed.
Constraint Options

INFANT SEAT
Place the child's arm under the strap

SHIRT
Shirts that can cover the hand, use a clip or hair tie to off the end of the sleeve

SOCK
Hand socks or regular socks can be used

CONTRAINT MITT
https://serfinitymedical.com/products/deroyal-infant-and-child-hand-control-mittens?variant=29424794566731&gclid=CjwKCAiAzuPuBRAEiwAkkmOShjKwAzw2AhQ4K95Gw4CAeAFwQ0yIqXZ2P4_BwASSxTnLrVRoCzuUQAvD_BwE

Sjöstrand & Eliasson
Toy Considerations

Is the child interested in the toy?
Is the toy the right size?
Is the toy the right weight?
Does the toy encourage the child to work on the skill?

Consider items at home and checking out toys from the Therapy Together toy library.
### Initiates Use and Contact with Items

#### LEVEL 1
Work on making contact with the item after a physical prompt or with assistance

#### LEVEL 2
Work on making contact with the item on own initiative

#### LEVEL 3
Work on making contact with item on own initiative with grasp

**Toy recommendations:** cause and effect toys, toys with texture, lightweight and easy to handle rattles, shakers, toys that have an auditory or visual component to draw attention to the toy
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Caregiver Log - week 1

CHILD'S NAME: ____________________________________________________________

WEEKLY GOALS

1. __________________________________________________________________________

2. __________________________________________________________________________

3. __________________________________________________________________________

NOTES:
**Child's name**: ________________________

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**Consider:**
- What went well? What was fun?
- What was difficult? What was frustrating?
- What questions do you have?
- Toys that worked / toys that didn’t?
Questions on Hand Use

1. This week, how well do you think your child used their affected hand during play sessions with the constraint on?
   (1) Not as good as last week
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2. Throughout the week, how often do you think your child used two hands during play and daily activities?
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Week 2

Topics:
1. Hand development part 1: Typical development of hand skills and development of hand skills for children with unilateral cerebral palsy.
2. Review of goals for your child based on the pre-assessment.

Upper limb domain: upper arm, reaches
# Your Child’s Timeline of Fine Motor Development

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<tr>
<th>Approx. Age of Onset (months)</th>
<th>Fine Motor Skill</th>
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<tr>
<td>0</td>
<td>Reflexes such as grasping</td>
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<tr>
<td>1-3</td>
<td>Reaching (ineffective)</td>
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<td>Grasping</td>
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<td>4-5</td>
<td>Reach and grasp</td>
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<td>6-7</td>
<td>Control of reach and grasp</td>
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<td>9</td>
<td>Pincer grasp</td>
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<td>10</td>
<td>Clasps hands</td>
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<tr>
<td>12-14</td>
<td>Releases objects crudely</td>
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<td>18</td>
<td>Controlled release</td>
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Adapted from "What's Going On in There?" - Lise Elliot 2000

www.gooeybrains.com
Hierarchy of Assisting Hand Skills in Young Children with Unilateral Cerebral Palsy
Most Difficult to Easiest

Notice differences in developmental milestones and development of the assisting hand:

- one hand vs two handed tasks
- pre-skills before grasp (hold, contact)
- grasp then reach vs reach then grasp
- use of the hand as a stabilizer
- focus on active movement of the arm and hand
- progression of grasp differs and is more dependent on the position and location of the item

Upper Arm and Reaches

**LEVEL 1**
Work on moving arm away from body toward an item with assistance or support

**LEVEL 2**
Work on moving arm away from body toward an item with physical prompting, gradually increase the amount of movement excepted

**LEVEL 3**
Work on moving arm away from body on own initiative, begin to work on accuracy of making contact with an item or grasp

Toy recommendations: beaded necklaces, scarves, balls, blocks/towers to push over, balloons, toys that were motivating from week 1
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Caregiver Log - week 2

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WEEKLY GOALS

1. ____________________________________________________________________________
2. ____________________________________________________________________________
3. ____________________________________________________________________________

NOTES:

______________________________________________________________
**CHILD'S NAME: ____________________________**

### Caregiver Log - week 2

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**Total time:**

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**Consider:**
- What went well? What was fun?
- What was difficult? What was frustrating?
- What questions do you have?
- Toys that worked / toys that didn’t?
Caregiver Log - week 2

Questions on Hand Use

1. This week, how well do you think your child used their affected hand during play sessions with the constraint on?

(1) Not as good as last week
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2. Throughout the week, how often do you think your child used two hands during play and daily activities?

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Week 3

Topics:
1. Hand development part 2. Additional examples of hand skill development for children with unilateral CP.

Upper limb domain: holds/grasps
Holds
Contact with Objects
Stabilizes by Weight
Moves Upper Arm
Moves Fingers
Moves Forearm
# Holds and Grasps

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<td>Work on catching moving items</td>
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Toy recommendations: ribbons, bead necklaces, small rattles, maracas, sticks, rings

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Caregiver Log - week 3

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WEEKLY GOALS

1. __________________________________________________________________________

2. __________________________________________________________________________

3. __________________________________________________________________________

NOTES:
Child's Name: ______________________________

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Week 4

Topics:

Upper limb domain: holds/grasps
Consider how hand function and cognitive development are linked

If you have concerns about your child's cognitive development consider working on both cognition and hand function during play sessions.

Developmental milestone checklists can be found on the Center for Disease Control website.

https://www.cdc.gov/ncbddd/actearly/milestones/milestones-5yr.html
Holds and Grasps

**LEVEL 1**
- Work on exploring and pre-grasp skills
- Work on holding: maintaining hold of an item after it is placed in the hand
- Working on holding object and moving it around

**LEVEL 2**
- Work on grasping from an easy position, increase frequency
- Work on precision of grasping, grasping from a person with different orientations or different sizes of items

**LEVEL 3**
- Work on grasping from the table, or at a distance with different orientations
- Work on advanced grasp patterns (pincer, tripod, index finger poking)
- Work on catching moving items

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Caregiver Log - week 4

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WEEKLY GOALS

1. _________________________________________________________________

2. _________________________________________________________________

3. _________________________________________________________________

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- What went well? What was fun?
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- Toys that worked / toys that didn’t?

**CHILD'S NAME:** ___________________________
CHILD'S NAME: __________________________

Caregiver Log - week 4

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Week 5

Topics:
1. What is cerebral palsy? Discuss the definition.

Upper limb domain: holds/grasps
Cerebral Palsy

Cerebral palsy (CP) refers to a group of disorders in the development of motor control and posture, occurring as a result of a non-progressive impairment of the developing central nervous system. The motor disorders of cerebral palsy can be accompanied by disturbances of sensation, cognition, communication, perception, and/or seizure disorder.

What is Cerebral Palsy?

- Cerebral palsy affects a person’s ability to move and maintain balance and posture.
- Cerebral palsy is caused by brain damage or abnormal brain development that happens before birth or early in life.
- Cerebral palsy is permanent. However, it’s not progressive.

CEREBRAL PALSY: The Six ‘F-Words’ for CP

1. **Function**
   - I might do things differently but I CAN do them. Please let me try!

2. **Family**
   - They know me best and I trust them to help me try. Listen to them. Talk to them. Hear them. Respect them.

3. **Fitness**
   - Everyone needs to stay fit and healthy, including me. Help me find ways to keep fit.

4. **Friends**
   - Having childhood friends is important. Please give me opportunities to make friends with my peers.

5. **Fun**
   - Childhood is about fun and play. This is how I learn and grow. Please let me do the activities that I find the most fun.

6. **Future**
   - I will grow up one day, so please find ways for me to develop independence and be Included in my community.

World Cerebral Palsy Day

worldcpday.org

CanChild

www.canchild.ca

www.gillettechildrens.org
Holds and Grasps

**LEVEL 1**

- Work on exploring and pre-grasp skills
- Work on holding: maintaining hold of an item after it is placed in the hand
- Working on holding object and moving it around

**LEVEL 2**

- Work on grasping from an easy position, increase frequency
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Caregiver Log - week 5

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WEEKLY GOALS

1. _________________________________________________________

2. _________________________________________________________

3. _________________________________________________________

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Week 6

Topics: Functional classifications:
1. Gross Motor Function Classification System: GMFCS
2. Manual Ability Classification System: MACS

Upper limb domain: forearm and finger movement
More Information can be Found on the Canchild Website:

https://canchild.ca/system/tenon/assets/attachments/000/002/114/original/GMFCS_English_Illustrations_V2.pdf
Gross Motor Function Classification System – Expanded and Revised (GMFCS – E & R)

BEFORE 2ND BIRTHDAY

LEVEL I: Infants move in and out of sitting and floor sit with both hands free to manipulate objects. Infants crawl on hands and knees, pull to stand and take steps holding on to furniture. Infants walk between 18 months and 2 years of age without the need for any assistive mobility device.

LEVEL II: Infants maintain floor sitting but may need to use their hands for support to maintain balance. Infants creep on their stomach or crawl on hands and knees. Infants may pull to stand and take steps holding on to furniture.

LEVEL III: Infants maintain floor sitting when the low back is supported. Infants roll and creep forward on their stomachs.

LEVEL IV: Infants have head control but trunk support is required for floor sitting. Infants can roll to supine and may roll to prone.

LEVEL V: Physical impairments limit voluntary control of movement. Infants are unable to maintain antigravity head and trunk postures in prone and sitting. Infants require adult assistance to roll.

BETWEEN 2ND AND 4TH BIRTHDAY

LEVEL I: Children floor sit with both hands free to manipulate objects. Movements in and out of floor sitting and standing are performed without adult assistance. Children walk as the preferred method of mobility without the need for any assistive mobility device.

LEVEL II: Children floor sit but may have difficulty with balance when both hands are free to manipulate objects. Movements in and out of sitting are performed without adult assistance. Children pull to stand on a stable surface. Children crawl on hands and knees with a reciprocal pattern, cruise holding onto furniture and walk using an assistive mobility device as preferred methods of mobility.

LEVEL III: Children maintain floor sitting often by "W-sitting" (sitting between flexed and internally rotated hips and knees) and may require adult assistance to assume sitting. Children creep on their stomach or crawl on hands and knees (often without reciprocal leg movements) as their primary methods of self-mobility. Children may pull to stand on a stable surface and cruise short distances. Children may walk short distances indoors using a hand-held mobility device (walker) and adult assistance for steering and turning.

LEVEL IV: Children floor sit when placed, but are unable to maintain alignment and balance without use of their hands for support. Children frequently require adaptive equipment for sitting and standing. Self-mobility for short distances (within a room) is achieved through rolling, creeping on stomach, or crawling on hands and knees without reciprocal leg movement.

LEVEL V: Physical impairments restrict voluntary control of movement and the ability to maintain antigravity head and trunk postures. All areas of motor function are limited. Functional limitations in sitting and standing are not fully compensated for through the use of adaptive equipment and assistive technology. At Level V, children have no means of independent movement and are transported. Some children achieve self-mobility using a powered wheelchair with extensive adaptations.

Retrieved from: https://canchild.ca/system/tenon/assets/attachments/000/000/058/original/GMFCS-ER_English.pdf
What do you need to know to use MACS?

The child's ability to handle objects in important daily activities, for example during play and leisure, eating and dressing.

In which situation is the child independent and to what extent do they need support and adaptation?

I. Handles objects easily and successfully. At most, limitations in the ease of performing manual tasks requiring speed and accuracy. However, any limitations in manual abilities do not restrict independence in daily activities.

II. Handles most objects but with somewhat reduced quality and/or speed of achievement. Certain activities may be avoided or be achieved with some difficulty; alternative ways of performance might be used but manual abilities do not usually restrict independence in daily activities.

III. Handles objects with difficulty; needs help to prepare and/or modify activities. The performance is slow and achieved with limited success regarding quality and quantity. Activities are performed independently if they have been set up or adapted.

IV. Handles a limited selection of easily managed objects in adapted situations. Performs parts of activities with effort and with limited success. Requires continuous support and assistance and/or adapted equipment, for even partial achievement of the activity.

V. Does not handle objects and has severely limited ability to perform even simple actions. Requires total assistance.

Distinctions between Levels I and II

Children in Level I may have limitations in handling very small, heavy or fragile objects which demand detailed fine motor control, or efficient coordination between hands. Limitations may also involve performance in new and unfamiliar situations. Children in Level II perform almost the same activities as children in Level I but the quality of performance is decreased, or the performance is slower. Functional differences between hands can limit effectiveness of performance. Children in Level II commonly try to simplify handling of objects, for example by using a surface for support instead of handling objects with both hands.

Distinctions between Levels II and III

Children in Level II handle most objects, although slowly or with reduced quality of performance. Children in Level III commonly need help to prepare the activity and/or require adjustments to be made to the environment since their ability to reach or handle objects is limited. They cannot perform certain activities and their degree of independence is related to the supportiveness of the environmental context.

Distinctions between Levels III and IV

Children in Level III can perform selected activities if the situation is prearranged and if they get supervision and plenty of time. Children in Level IV need continuous help during the activity and can at best participate meaningfully in only parts of an activity.

Distinctions between Levels IV and V

Children in Level IV perform part of an activity, however, they need help continuously. Children in Level V might at best participate with a simple movement in special situations, e.g. by pushing a button or occasionally hold underdemanding objects.
Ages 1-4 years

Distinctions between Levels I and II
Children in Level I may have slightly more difficulty handling items that require good fine motor skills compared to children without disabilities of the same age.

Children in Level II handle essentially the same objects as children in Level I, but they may encounter problems performing tasks and/or take longer to perform them, so they often ask for help. Functional differences between hands may cause performance to be less effective. They may need more guidance and practice to learn how to handle objects compared with children in Level I.

Distinctions between Levels II and III
Children in Level II handle most objects, though they may take longer and do so with somewhat less quality, and they may need a lot of guidance and practice to learn how to handle objects.

Level III children manage to use easily handled objects but often need help placing objects in an easy position in front of them. They perform actions with few subcomponents. Performance is slow.

Distinctions between Levels III and IV
Children in Level III manage to use easily handled objects independently for short periods. They perform actions with few subcomponents, and the actions take a long time to perform.

At best, children in Level IV can perform simple actions such as grasping and releasing easily handled objects that are offered in an adapted position. They need constant help.

Distinctions between Levels IV and V
Children in Level IV perform individual actions with a very limited selection of objects and need constant help.

At best, children in Level V perform simple movements in special situations. For example, they can press a simple button or hold single, simple objects.
Forearm and Finger Movement

**LEVEL 1**

Work on exploring items placed near hand (finger extension/flexion)

Work on placing items in the hand palm up and see if the child will maintain the position

**LEVEL 2**

Work on opening and closing hand to grasp a variety of objects of different sizes (finger flexion/extension)

Work on moving the arm around once the item is in the hand (turn over to promote supination)

**LEVEL 3**

Work on grasp refinement, separating two sides of the hand – isolating index finger, pincer grasp, radial grasp

Work on large range of movement for supination (turning pages in a book, turning over puzzle piece)

Toy recommendations: items for texture, ribbons, light weight rattles, shakers, variety of objects for gross grasp (ball, plastic egg, squishem, stick); books, knob puzzles
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TOY LIBRARY CHECKOUT

Week 6
Caregiver Log - week 6

CHILD'S NAME: ____________________________________________

WEEKLY GOALS

1. ____________________________________________________________________________
2. ____________________________________________________________________________
3. ____________________________________________________________________________

NOTES:
CHILD'S NAME: ________________________________

Caregiver Log - week 6

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Consider:
- What went well? What was fun?
- What was difficult? What was frustrating?
- What questions do you have?
- Toys that worked / toys that didn’t?
CHILD’S NAME: ________________________________

Caregiver Log - week 6

Questions on Hand Use

1. This week, how well do you think your child used their affected hand during play sessions with the constraint on?

   (1) Not as good as last week
   (2) The same as last week
   (3) Better than last week
   (4) Much better than last week

2. Throughout the week, how often do you think your child used two hands during play and daily activities?

   (1) Less than last week
   (2) The same as last week
   (3) More than last week
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Week 7

Topics:
1. Resources and websites

Upper limb domain: release
RESOURCES

CanChild
www.canchild.ca

Manuel Ability Classification System
www.macs.nu

Scottish Rite Classification System
www.macs.nu

Texas Children's Hospital
https://scottishritehospital.org/

Cerebral Palsy Road Map

Center for Disease Control and Prevention: Milestones
https://www.cdc.gov/ncbddd/actearly/milestones/index.html
Release

**LEVEL 1**
Work on dropping item or letting go with intention

**LEVEL 2**
Work on releasing into a large container

**LEVEL 3**
Work on releasing with refinement (small container, stacking)

Toy recommendations: rings, blocks, buckets of different sizes, toy piggy bank
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Week 8

Topics: Overview of “green light” upper limb interventions including bimanual hand skills, embedding goal attainment into daily routines

Upper limb domain: using the involved side as the assisting hand
Improved motor activities

- CIMT
- Goal-directed training
- OT post botulinum toxin
- Home programs
- Conductive Education
- NDT
- Hyperbaric 02

Improved function & self care

- Goal-directed training
- Home programs
- Seating
- Treadmill training
- Botulinum toxin
- SDR
- ITB
- Massage
- Vojta

- Context focused therapy
- Hydrotherapy
- Biofeedback
- Hippotherapy
- SEMLS & therapy
- Thera-suits
- SI

Strategies for Daily Practice

SET GOALS
Have 1-2 goals that are meaningful and attainable

SET ASIDE 15 MINUTES 4-5 DAYS PER WEEK
Include 15 minute practice sessions in your daily routine (i.e. after breakfast, after school, etc)

MAKE IT PART OF YOUR DAILY ACTIVITIES
Practice the goal during daily activities (i.e. work on dressing when getting ready for bed)
Use of the Assisting Hand

LEVEL 1
Work on using the assisting hand to stabilize (against body or surface) during two-handed tasks

LEVEL 2
Work on using the assisting hand to hold during two-handed tasks – item is placed in the hand from the dominant hand and released to the dominant hand

LEVEL 3
Work on using the assisting hand as a typical non-dominant hand

Toy recommendations: duplos, pop beads, animals out of small containers
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**TOY LIBRARY CHECKOUT**

**Week 8**

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REFERENCES


