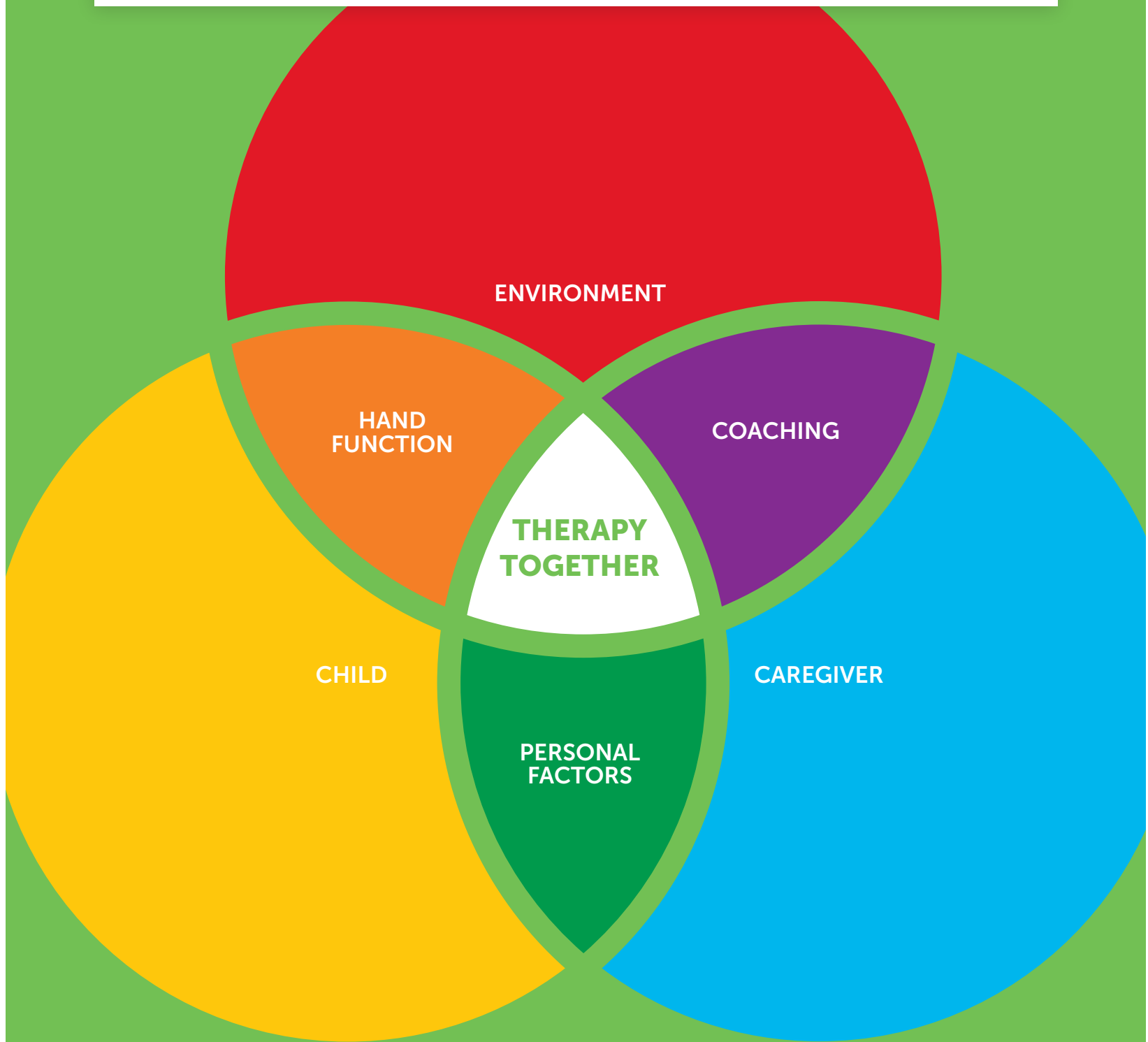


THE THERAPY TOGETHER

A caregiver's manual for constraint induced movement therapy.



SCOTTISH RITE



Requirements to Participate

PRE-ASSESSMENT AND POST ASSESSMENT

- Complete a one to two hour pre-assessment
- Complete a one to two hour post assessment

THERAPY SESSIONS

- Weekly sessions with a therapist (in-person or virtual)

THERAPY AT HOME

- Complete one hour of therapeutic activities each day at home.

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 email.

HEATHER ROBERTS, Ph.D., O.T.

heather.roberts@tsrh.org
214-794-8117 cell

ANGELA SHIERK, Ph.D., O.T.R.

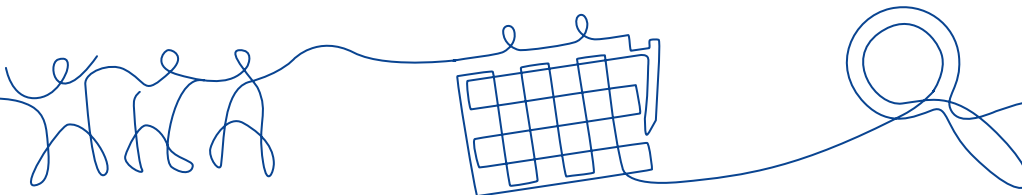
angela.shierk@tsrh.org
806-470-0006 cell

Caregiver Manual Overview

[What is Therapy Together?](#)

[Weekly Sessions](#)

[References and Resources](#)



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Therapy Together

WHAT IS IT?

Therapy Together is a caregiver-led intensive upper limb intervention for children ages 3 months to 2 years 11 months that present with unilateral cerebral palsy (one side of the body is affected) or are at risk for developing unilateral cerebral palsy.

The child and the caregiver attend one-hour, weekly sessions with a therapist (in-person or virtual) and engage in therapeutic activities at home focused on arm/hand skills for one hour each day for eight weeks. The first seven weeks of the program focus on constraint induced movement therapy (CIMT) where the preferred hand is restrained with a soft mitt to promote the use of the assisting hand. Week 8 focuses on the use of two hands together.

Weekly sessions will focus on coaching the caregiver to implement CIMT with their child in the home environment. Each week the therapist will teach one to two 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 in the program.

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 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 the 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 sessions with a therapist (in-person or virtual). The majority of the upper limb practice will occur in the home environment with the caregiver.

Terms Related to Hand Use

Assisting Hand – the assisting hand is the hand that assists or helps during two-handed tasks. For an individual with unilateral cerebral palsy (one side of the body is affected), the assisting hand is the hand or arm of the involved side and is typically the non-dominant hand.

Preferred Hand – the preferred hand is the hand that is used more often and typically completes the more complex task in a two-handed activity. For an individual with unilateral cerebral palsy (one side of the body is affected), the preferred hand or arm is the hand or arm on the non-involved side and is typically the dominant hand.



Weekly Session Overview

The TEAM Approach

Topic

Introduce the topic(s) for the session, which is upper limb domain(s) plus one other component of the Therapy Together program

Encourage

Sharing, processing and supporting (ex: How was last week?)

Activity

Focused on upper limb activity domain and caregiver coaching

Motivate

How to implement what was learned during the week, activity and toy recommendations, feedback on progress made

WK1

Topics

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



Upper Limb Domain: Initiates Use and Contact with Objects

Working with your child

HOW TO START

Prepare for the play session. 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 the 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: four 15-minute play sessions)¹

Preparing for the play session

TOYS

Are your toys ready?

ATTENTION

Are distractions minimized?
(TV, phone, siblings)

CHILD

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

CONSTRAINT

Do you have a constraint that works well for the child?

POSITIONING

Do you have a table and chair that is suitable?

1. Eliason, A. C., & Sjostrand, L. (n.d.). *Baby CIMT Manual*. <https://ki.se/media/234664/download>

Positioning Rules

SITTING UPRIGHT

The child should be in an upright and stable position.

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 or change their strategy by using the hand/arm that is easier to use. Therefore, a constraint needs to be placed on the preferred side to allow for opportunities for the assisting 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 noninvolved hand, but the hand with the constraint can be used during the play session as a support as needed.¹

CONSTRAINT OPTIONS



INFANT SEAT

Place the child's arm under the strap.



SHIRT

For shirts that can cover the hand, use a clip or hair tie to close off the end of the sleeve.



SOCK

Hand socks or regular socks can be used.



CONSTRAINT MITT



1. Eliason, A. C., & Sjostrand, L. (n.d.). *Baby CIMT Manual*. <https://ki.se/media/234664/download>

Toy Selection

- 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?



Motor: Initiates Use and Contact with Items

Initiates use means starting movement with the assisting hand to reach toward an item or make contact with the item.

LEVEL A

Work on making contact with the item after a physical prompt (touch or tap) or with assistance.

LEVEL B

Work on making contact with the item on own initiative.

LEVEL C

Work on making contact with item on own initiative with grasp.

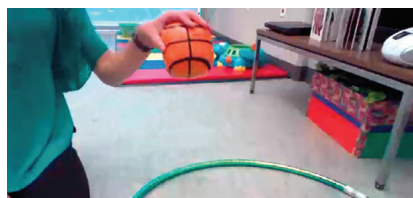
Toy recommendations: cause and effect toys, toys with texture, lightweight and easy to handle rattles, shakers, toys that have an auditory or visual component to draw attention to the toy.

Therapy Together

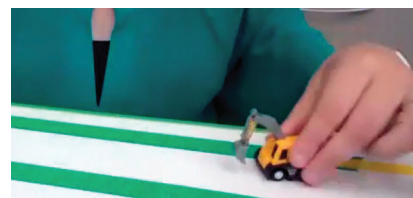
Week 1 Activities for Home (Preschool Age)



Abstract Popsicle Art
<https://youtu.be/7sc3e2hls2A>



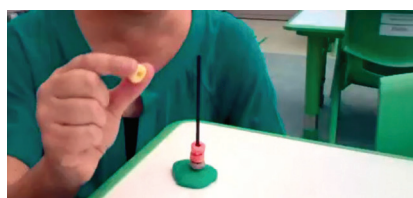
Ball and Hula Hoop
<https://youtu.be/bGpGJ0qe148>



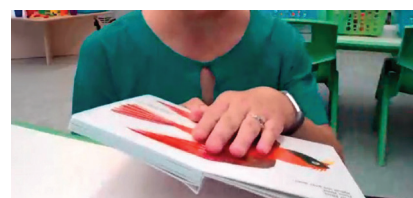
Cars and Tape
<https://youtu.be/mzEZW7Usd0s>



Color Bears
<https://youtu.be/lt6joTlacXA>



Fruit Loop Towers
<https://youtu.be/4siqFebMZvA>



Brown Bear Book
<https://youtu.be/0lIss8-RHao>

Therapy Together

Week 1 Activities for Home (Infants and Toddlers)



 **Light up Toy**
https://youtu.be/oC_TigOU004



 **Initiating Use with Pegs**
<https://youtu.be/6gdZnw9k4fA>




 **Scarves Activity**
<https://youtu.be/ds1yZL0DsGc>



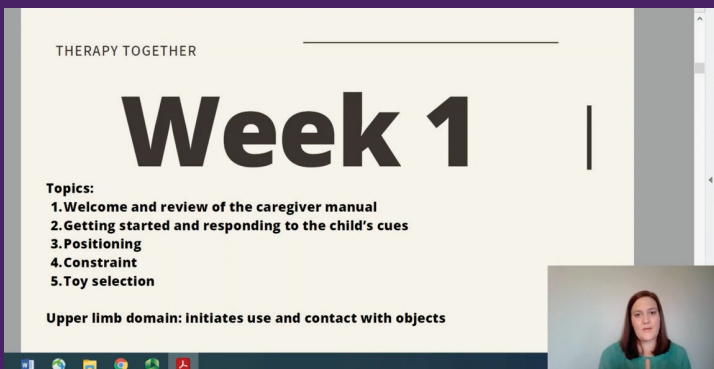
 **Sensory Animals**
<https://youtu.be/p9bvE7gibKA>



WK1



Summary Video
<https://youtu.be/1sHpnv8Wbg>



Week 1 Summary

1. Wear the constraint for 60 minutes per day.
2. Work on initiating arm use and making contact with an item, primarily focusing on level _____.
3. Set up a routine for when you plan to practice at home.
4. Set up an area in your home with toys and materials needed for the program.
5. Complete the weekly log.

Caregiver Log - Week 1

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

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

- Not as good as last week
 The same as last week
 Better than last week
 Much better than last week

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

- Not as good as last week
 The same as last week
 Better than last week
 Much better than last week

3. Throughout the week, how was implementing therapy at home?

- Stressful to implement into daily routines
 Difficult to implement into daily routines
 Easily implemented into daily routines
 Enhanced our daily routines

Comments:

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 the child based on the pre-assessment.
3. Upper limb domain: upper arm, reaches



Your child's timeline of fine motor development

www.gooeybrains.com
Adapted from "What's Going On In Here?"
- Lise Elliot

Approx Age of Onset (months)	Fine Motor Skill
0	Reflexes such as grasping
1-3	Reaching (ineffective)
3	Grasping
4-5	Reach and grasp
6-7	Control of reach and grasp
9	Pincer grasp
10	Clasps hands
12-14	Releases objects crudely
18	Controlled release



Hierarchy of Assisting Hand Skills in Young Children with Unilateral Cerebral Palsy Most Difficult to Easiest⁵

Bimanual manipulation	Flow in bimanual performance	Moves upper arm
Chooses assisting hand	Releases	Amount of use
Varies grasp	Initiates use	Stabilizes by weight
Grasps (object location)	Reaches	Grasp from an easy position
Adjusts arm position	Stabilize by grasp	Contact with objects
Symmetrical arm/hand use	Moves forearm	Holds
Readjusts grasp	Moves fingers	

5. Greaves, S., Imms, C., Dodd, K., & Krumlinde Sundholm, L. (2013). Development of the mini assisting hand assessment: Evidence for content and internal scale validity. *Developmental Medicine & Child Neurology*, 55(11), 1030-1037. DOI: 10.1111/dmcn.12212

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

one-handed 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 A

Work on moving arm away from body toward an item with assistance or support.

LEVEL B

Work on moving arm away from body toward an item with physical prompting, gradually increase the amount of movement expected.

LEVEL C

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

Therapy Together

Week 2 Activities for Home (Preschool Age)



Ball Drop

<https://youtu.be/PwK34Yvgw48>



Shaving Cream Art

<https://youtu.be/0lezKjkiPBk>



Bowling Blocks

<https://youtu.be/vFvvV40EEXA>



Building a Tower

https://youtu.be/b018_ZnShnM



Bug Clings

<https://youtu.be/TOsLLmWv9Os>

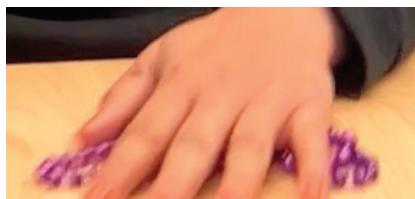


Book

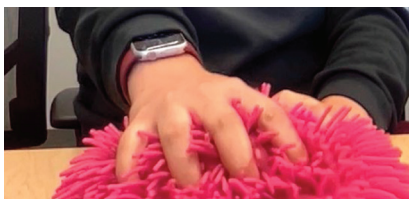
<https://youtu.be/J4EVIFR2iXA>

Therapy Together

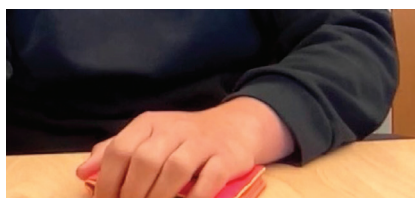
Week 2 Activities for Home (Infants and Toddlers)



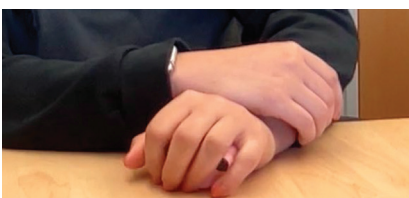
 **Upper Arm Reaches Activity 1**
<https://youtu.be/2a8Gknzh0hk>



 **Upper Arm Reaches Activity 2**
<https://youtu.be/-aL-pzRh2m4>




 **Upper Arm Reaches Activity 3**
<https://youtu.be/IC5hwQUBKvQ>



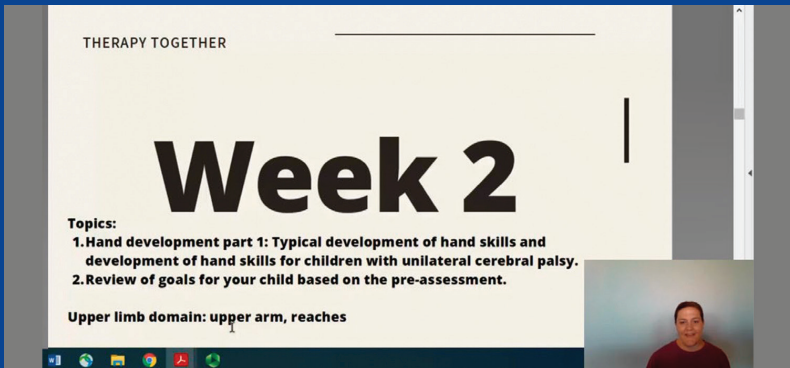
 **Upper Arm Reaches Activity 4**
<https://youtu.be/fuXSNd7nlml>



WK2



Summary Video
https://youtu.be/0UFnY5ox_5o



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

Week 2 Summary

1. Work on upper arm and reaches primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 2

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

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

Not as good as last week
 The same as last week
 Better than last week
 Much better than last week
- Throughout the week, how often do you think your child used two hands during play and daily activities?

Less than last week
 The same as last week
 More than last week
 Much more than last week
- Throughout the week, how was implementing therapy at home?

Stressful to implement into daily routines
 Difficult to implement into daily routines
 Easily implemented into daily routines
 Enhanced our daily routines

Comments:

Topics

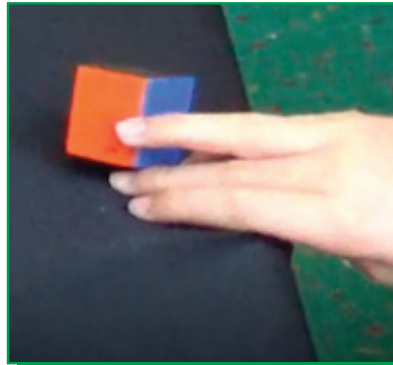
1. Hand development part 2: Additional examples of hand skill development for children with unilateral CP.
2. Upper limb domain: holds/grasps



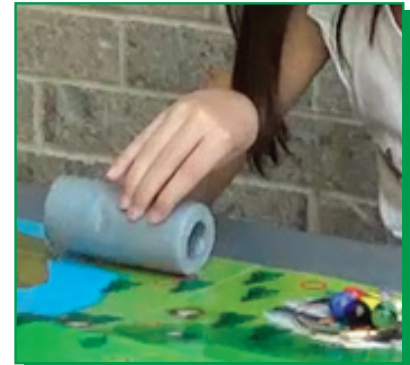
Hand Skill Examples



Holds



Contact with Objects



Stabilizes by Weight



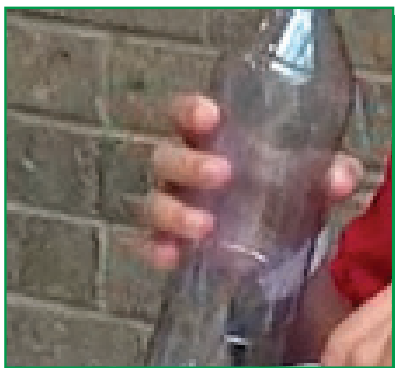
Moves Upper Arm



Moves Fingers



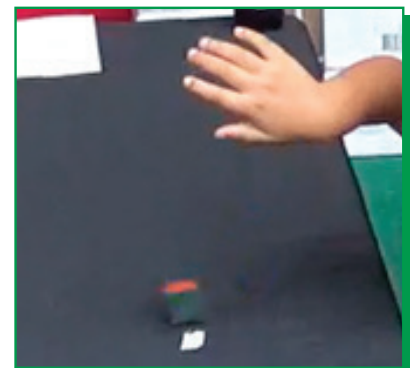
Moves Forearm



Stabilizes by Grasp

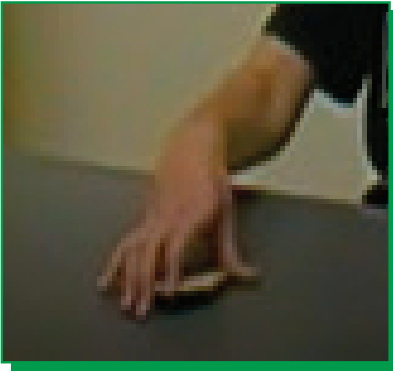


Reaches



Release

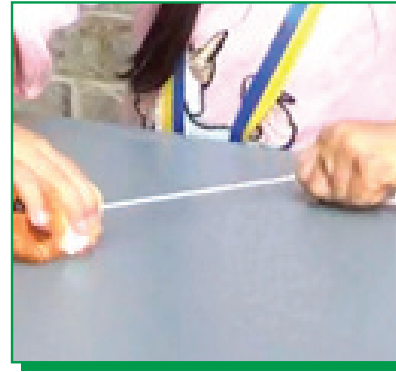
7. Holmefur, M., & Krumlinde Sundholm, L. (2016). Psychometric properties of a revised version of the assisting hand assessment (Kids AHA 5.0.) *Developmental Medicine & Child Neurology*, 58(6), 618-624. doi: 10.1111/dmcn.12939



Grasp



Varies Grasp



Bimanual Manipulation

Holds and Grasps

LEVEL A

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 B

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 C

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.

Toy recommendations: ribbons, bead necklaces, small rattles, maracas, sticks, rings
More advanced patterns: small finger foods, stickers, beads, pegs

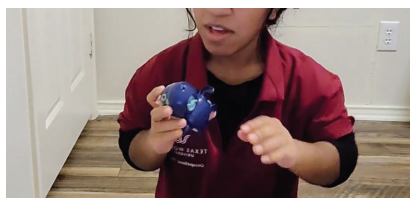
Therapy Together

Week 3 Activities for Home (Preschool Age)



Build a Car

<https://youtu.be/gJC10eDAE6M>



Moving Turtle

<https://youtu.be/7hg8Hge-HxY>



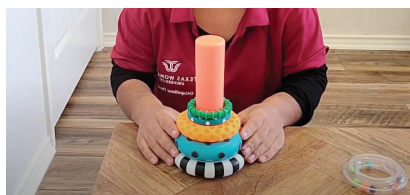
Painted Tire Tracks

<https://youtu.be/DHXoGuVm0ys>



Cars and Cranes

https://youtu.be/_88Ff4nlh-8

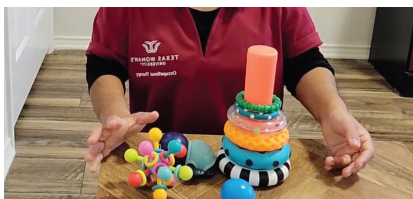


Sensory Rings

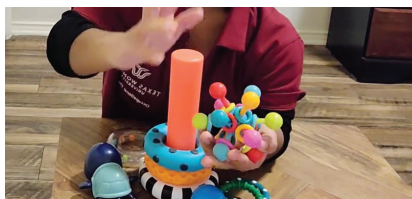
<https://youtu.be/eWEIKpo5NHA>

Therapy Together

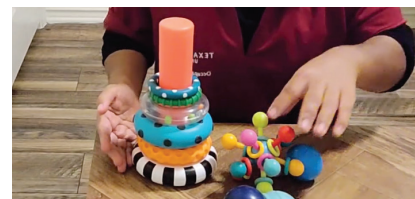
Week 3 Activities for Home (Infants and Toddlers)



Holding and Grasping Level A
<https://youtu.be/g93hDSWZaQA>



Holding and Grasping Level B
<https://youtu.be/joBFSQGY3Hc>

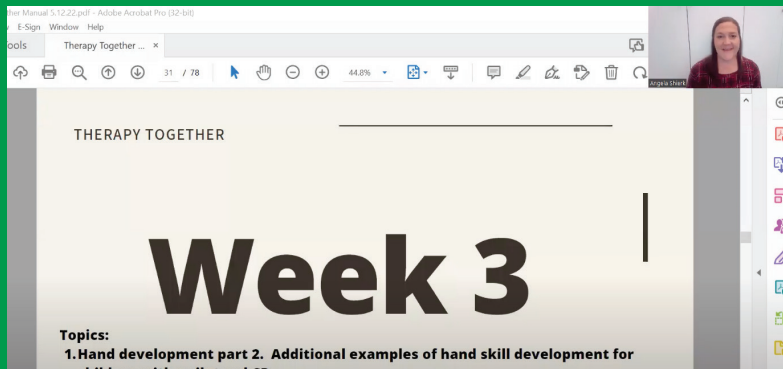


Holding and Grasping Level C
<https://youtu.be/Jo73UfUcxzY>

WK3

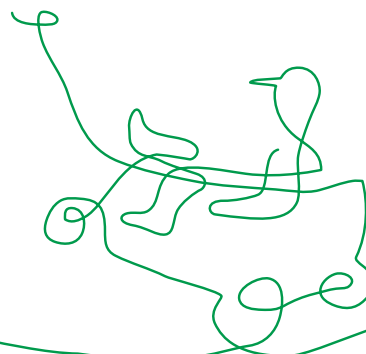


Summary Video
<https://youtu.be/rSOQwRVE5qg>



Week 3 Summary

1. Work on holds and grasps, primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.



Caregiver Log - Week 3

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

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

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 The same as last week
 Better than last week
 Much better than last week
- Throughout the week, how often do you think your child used two hands during play and daily activities?

Less than last week
 The same as last week
 More than last week
 Much more than last week
- Throughout the week, how was implementing therapy at home?

Stressful to implement into daily routines
 Difficult to implement into daily routines
 Easily implemented into daily routines
 Enhanced our daily routines

Comments:

Topics

1. Cognition and hand function. Cognitive developmental milestones related to play and hand skills.
2. Upper limb domain: holds/grasps.



Examples of Cognitive Development Milestones 2 to 36 Months

Notice 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 Centers for Disease Control and Prevention (CDC) website: <https://www.cdc.gov/ncbddd/actearly/milestones/index.html>



* Cognition is the mental process of knowing and understanding.

Cognitive Developmental Milestones (CDC, 2022)

Looks at a toy for several seconds (2 months)

Looks at hands with interest (4 months)

Reaches to grab a toy he/she wants (6 months)

Bangs two things together (9 months)

Puts something in a container, like a block in a cup (1 year)

Stacks at least two small things like blocks (15 months)

Plays with toys in a simple way, like pushing a car (18 months)

Holds something in one hand while using the other hand (30 months)

Draws a circle when you show him/her (3 years)

Holds and Grasps

LEVEL A

Work on exploring and pre-grasp skills.

Work on holding: maintaining hold of an item after it is placed in the hand.

Work on holding object and moving it around.

Toy recommendations: ribbons, bead necklaces, small rattles, maracas, sticks, rings
 More advanced patterns: small finger foods, stickers, beads, pegs.

LEVEL B

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 C

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.

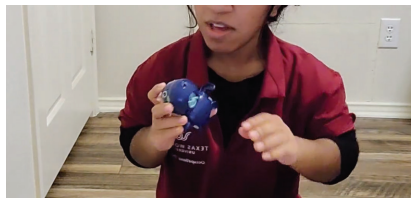
Therapy Together

Week 4 Activities for Home (Preschool Age)



Build a Car

<https://youtu.be/gJC10eDAE6M>



Moving Turtle

<https://youtu.be/7hg8Hge-HxY>



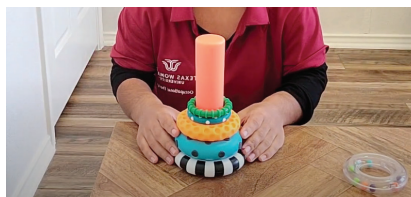
Painted Tire Tracks

<https://youtu.be/DHXoGuVm0ys>



Cars and Cranes

https://youtu.be/_88Ff4nlh-8



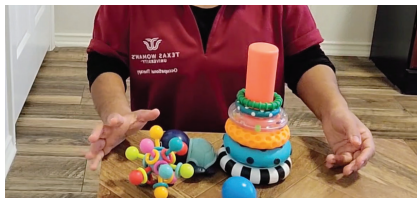
Sensory Rings

<https://youtu.be/eWEIKpo5NHA>

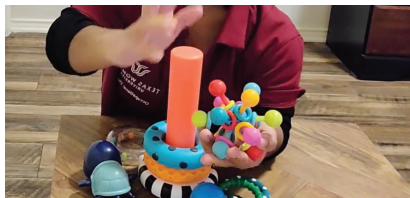


Therapy Together

Week 4 Activities for Home (Infants and Toddlers)



Holding and Grasping Level A
<https://youtu.be/g93hDSWZaQA>



Holding and Grasping Level B
<https://youtu.be/joBFSQGY3Hc>



Holding and Grasping Level C
<https://youtu.be/Jo73UfUcxzY>

WK4




Summary Video
https://youtu.be/ZH_pOLdljBk

THERAPY TOGETHER

Week 4

Topics:
 1. Cognition and hand function. Cognitive developmental milestones related to play and hand skills.

Upper limb domain: holds/grasps



Week 4 Summary

1. Work on holds and grasps, primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 4

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

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

Not as good as last week
 The same as last week
 Better than last week
 Much better than last week
- Throughout the week, how often do you think your child used two hands during play and daily activities?

Less than last week
 The same as last week
 More than last week
 Much more than last week
- Throughout the week, how was implementing therapy at home?

Stressful to implement into daily routines
 Difficult to implement into daily routines
 Easily implemented into daily routines
 Enhanced our daily routines

Comments:

Topics


1. What is cerebral palsy? Discuss the definition.
2. Upper limb domain: holds/grasps




Cerebral Palsy

Cerebral palsy (CP) refers to a group of disorders in the development of motor control and posture, which occur as a result of a nonprogressive 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.^{4, 10, 11}

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.



<https://www.gillettechildrens.org/stories/infographic-understanding-cerebral-palsy>

CEREBRAL PALSY: The Six 'F-Words' for CP

- 

1 FUNCTION I might do things differently but I CAN do them. How I do it is not important. Please let me try!
- 

2 FAMILY They know me best and I trust them to do what's best for me. 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 help 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
 Proudly supported by The Allergan Foundation
 Based on Fosenbaum, P & Gorter, J.W (2012). The 'F-words' in childhood disability: I swear this is how we should think! Child: Care, Health and Development, 38(4). Visit <https://www.canchild.ca/research-in-practice/f-words-in-childhood-disability> for more resources.

4. Gillette Children's (2022). Infographic: Understanding of Cerebral Palsy. <https://www.gillettechildrens.org/khm/infographic-understanding-cerebral-palsy>

10. Rosenbaum, P., Paneth, N., Leviton, A., Goldstein, M., Bax, M. (2007). The definition and classification of cerebral palsy: Definition and classification document. *Developmental Medicine and Child Neurology*, 49(s109), 8-14.

11. Rosenbaum, P. & Gorter, J.W. (2012). The 'F-words' in childhood disability: I swear this is how we should think!. *Child: Care, Health and Development*, 38, 457-463. <https://doi.org/10.1111/j.1365-2214.2011.01338.x>

Holds and Grasps

LEVEL A

Work on exploring and pre-grasp skills.

Work on holding: maintaining hold of an item after it is placed in the hand.

Work on holding object and moving it around.

LEVEL B

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 C

Work on grasping from the table, or at a distance with different orientations.

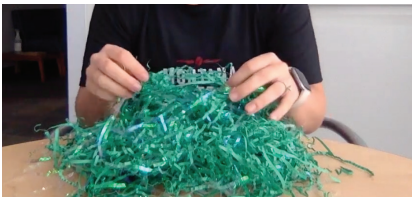
Work on advanced grasp patterns (pincer, tripod, index finger poking).

Work on catching moving items.

Toy recommendations: ribbons, bead necklaces, small rattles, maracas, sticks, rings
More advanced patterns: small finger foods, stickers, beads, pegs

Therapy Together

Week 5 Activities for Home (Preschool Age)



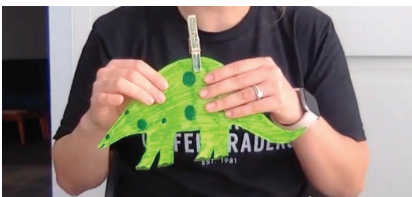
Dinosaur Hunt
https://youtu.be/_k4lZ4Cq9Ug



Dinosaur Footprints
<https://youtu.be/zN5CWvevgYY>



Dinosaur Eggs
<https://youtu.be/izeLcVAKSUG>



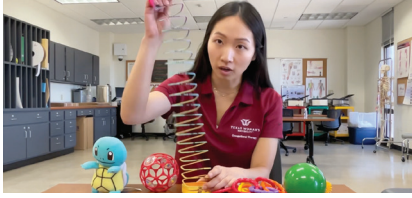
Pin the Scales on the Dino
<https://youtu.be/v8j5qTsi2Mw>



Dinosaur Dobbbers
<https://youtu.be/uglcQnLL3Jo>

Therapy Together

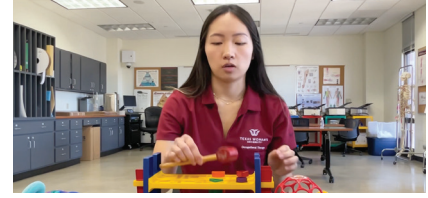
Week 5 Activities for Home (Infants and Toddlers)



Holding and Grasping Level A
<https://youtu.be/BZW1YDTpSMM>



Holding and Grasping Level B
<https://youtu.be/wK2fiyaCVtc>



Holding and Grasping Level C
<https://youtu.be/bSJqzfobE2M>

WK5

Summary Video
<https://youtu.be/Pzn5k5ipIEs>

THERAPY TOGETHER

Week 5

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

Upper limb domain: holds/grasps

Week 5 Summary

1. Work on holds and grasps, primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 5

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
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TOTAL TIME:	

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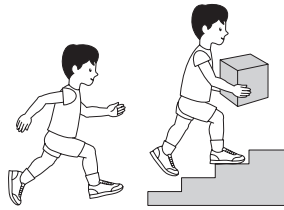
Comments:

Topics: Functional Classifications



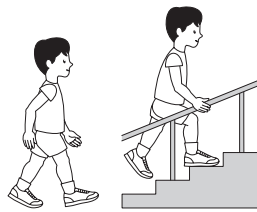
1. Gross Motor Function Classification System: GMFCS⁹
2. Manual Ability Classification System: MACS^{2,3}
3. Upper limb domain: forearm and finger movement

GMFCS E & R Between 6th and 12th Birthday: Descriptors and Illustrations



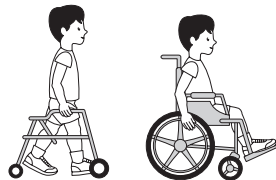
GMFCS Level I

Children walk at home, school, outdoors and in the community. They can climb stairs without the use of a railing. Children perform gross motor skills such as running and jumping, but speed, balance and coordination are limited.



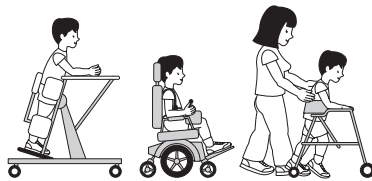
GMFCS Level II

Children walk in most settings and climb stairs holding onto a railing. They may experience difficulty walking long distances and balancing on uneven terrain, inclines, in crowded areas or confined spaces. Children may walk with physical assistance, a hand-held mobility device or used wheeled mobility over long distances. Children have only minimal ability to perform gross motor skills such as running and jumping.



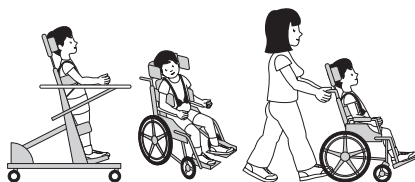
GMFCS Level III

Children walk using a hand-held mobility device in most indoor settings. They may climb stairs holding onto a railing with supervision or assistance. Children use wheeled mobility when traveling long distances and may self-propel for shorter distances.



GMFCS Level IV

Children use methods of mobility that require physical assistance or powered mobility in most settings. They may walk for short distances at home with physical assistance or use powered mobility or a body support walker when positioned. At school, outdoors and in the community children are transported in a manual wheelchair or use powered mobility.



GMFCS Level V

Children are transported in a manual wheelchair in all settings. Children are limited in their ability to maintain antigravity head and trunk postures and control leg and arm movements.

GMFCS descriptors: Patisano et al. (1997) Dev Med Child Neurol 39:214-23
CanChild: www.canchild.ca

Illustrations Version 2 © Bill Reid, Kate Willoughby, Adrienne Harvey and Kerr Graham,
The Royal Children's Hospital Melbourne ERC151050



More information can be found on the CanChild website:
<https://canchild.ca/en/resources/42-gmfcs-e-r>

Gross Motor Function Classification System – Expanded and Revised (GMFCS – E & R)

BEFORE AGE 2

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 AGE 2 AND 4

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 handheld 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.



Retrieved from:

https://www.macs.nu/files/MACS_English_2010.pdf

Ages 4-8 years

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 undemanding objects.



What do you need to know to use Mini-MACS?

Mini-MACS users need to find out what objects the child usually handles and how they handle them: with ease or difficulty, quickly or slowly, with precision or randomly? For example, you can ask about and/or observe how the child uses his or her hands when playing and during meals, or when participating in usual activities of daily living.

Ask questions about the child's self-initiated ability and how much adult help and support the child needs to handle everyday objects, e.g. toys.

Below is a description of the five Mini-MACS levels of children's self-initiated ability and their need for assistance or adaptation when handling objects.

- I. **Handles objects easily and successfully.** The child may have a slight limitation in performing actions that require precision and coordination between the hands but they can still perform them. The child may need somewhat more adult assistance when handling objects compared to other children of the same age.
- II. **Handles most objects, but with somewhat reduced quality and/or speed of achievement.** Some actions can only be performed and accomplished with some difficulty and after practice. The child may try an alternative approach, such as using only one hand. The child need adult assistance to handle objects more frequently compared to children at the same age.
- III. **Handles objects with difficulty.** Performance is slow, with limited variation and quality. Easily managed objects are handled independently for short periods. The child often needs adult help and support to handle objects.
- IV. **Handles a limited selection of easily managed objects in simple actions.** The actions are performed slowly, with exertion and/or random precision. The child needs constant adult help and support to handle objects.
- V. **Does not handle objects and has severely limited ability to perform even simple actions.** At best, the child can push, touch, press, or hold on to a few items, in constant interaction with an adult.



Retrieved from:

https://www.macs.nu/files/Mini-MACS_English_2016.pdf

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 can 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 A

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 B

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 C

Work on grasp refinement, separating two sides of the hand – isolating index finger, pincer grasp (using index and thumb), radial grasp (using thumb, middle finger and index finger).

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

Toy recommendations: items for texture, ribbons, lightweight rattles, shakers, a variety of objects for gross grasp (ball, plastic egg, squishem, stick), books, knob puzzles

Therapy Together

Week 6 Activities for Home (Preschool Age)



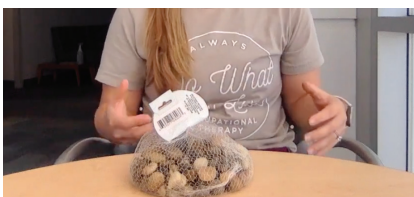
Playdough Party
<https://youtu.be/ljNhpNSVyJw>



Scavenger Hunt
<https://youtu.be/wjNnsE4yvow>



Tissue Paper Flower
<https://youtu.be/2qOFJpbyZXg>



Rock Garden
<https://youtu.be/ohbseUTgLzo>

Therapy Together

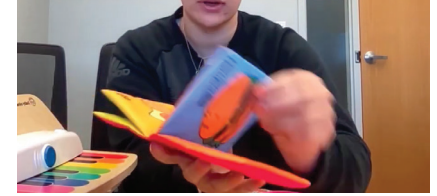
Week 6 Activities for Home (Infants and Toddlers)



**Forearm and Finger Movement
W6 Level A**
<https://youtu.be/uS9it-s3VnM>



**Forearm and Finger Movement
W6 Level B**
<https://youtu.be/k2zJC-tfVuc>



**Forearm and Finger Movement
W6 Level C**
<https://youtu.be/Dm6mSdyBAgc>

WK 6

THERAPY TOGETHER

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

Summary Video

https://youtu.be/P_dTxi3MYiM

Week 6 Summary

1. Work on forearm and finger movements, primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 6

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

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

Not as good as last week
 The same as last week
 Better than last week
 Much better than last week
2. Throughout the week, how often do you think your child used two hands during play and daily activities?

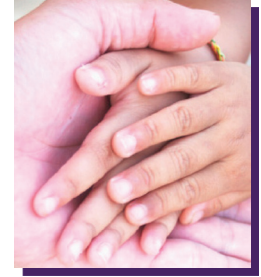
Less than last week
 The same as last week
 More than last week
 Much more than last week
3. Throughout the week, how was implementing therapy at home?

Stressful to implement into daily routines
 Difficult to implement into daily routines
 Easily implemented into daily routines
 Enhanced our daily routines

Comments:

Topics

1. Resources and websites
2. Upper limb domain: release



RESOURCES



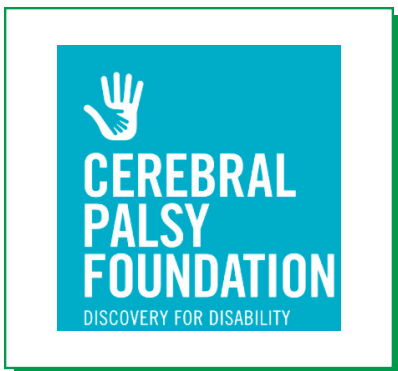
Scottish Rite for Children
scottishriteforchildren.org



CanChild
<https://canchild.ca/>



Manual Ability Classification System
<https://www.macs.nu/>



Cerebral Palsy Foundation
<https://www.yourcpf.org/>



Centers for Disease Control and Prevention: Milestones
<https://www.cdc.gov/ncbddd/>



Cerebral Palsy Road Map
https://www.gillettechildrens.org/assets/uploads/care-and-conditions/CP_Roadmap.pdf



Release

LEVEL A

Work on dropping item or letting go with intention.

LEVEL B

Work on releasing into a large container.

LEVEL C

Work on releasing with refinement (small container, stacking).

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

Therapy Together

Week 7 Activities for Home (Preschool Age)



Animal Stamps
<https://youtu.be/7TcrOTyTPjo>



Toss It Up
<https://youtu.be/SsRbUnyiV1s>



Puppets
<https://youtu.be/nV-sW0k9orI>



Bear Sort
https://youtu.be/MJ_Ma7vs1pw

Therapy Together

Week 7 Activities for Home (Infants and Toddlers)





Releasing Level A
https://youtu.be/GvDTre_wnLU



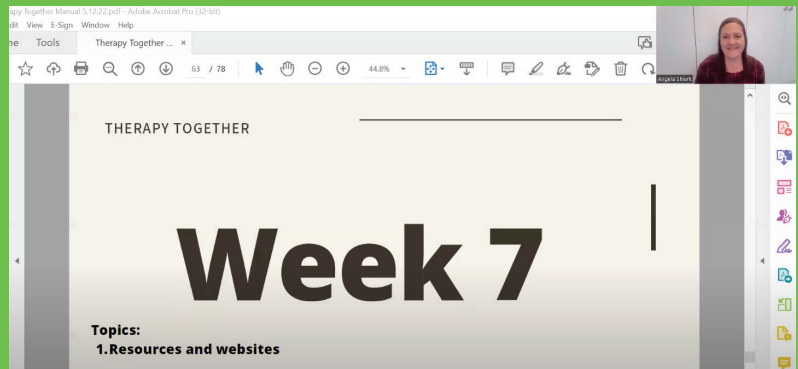
Releasing Level B
<https://youtu.be/ucRIJH0FWo8>



Releasing Level C
<https://youtu.be/ex6pPIDLOqU>

Summary Video
<https://youtu.be/Bv7nmppBT0A>



Week 7 Summary

1. Work on release primarily focusing on level _____ .
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 7

Child's ID: _____

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?

DAY	TIME
Monday	
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TOTAL TIME:	

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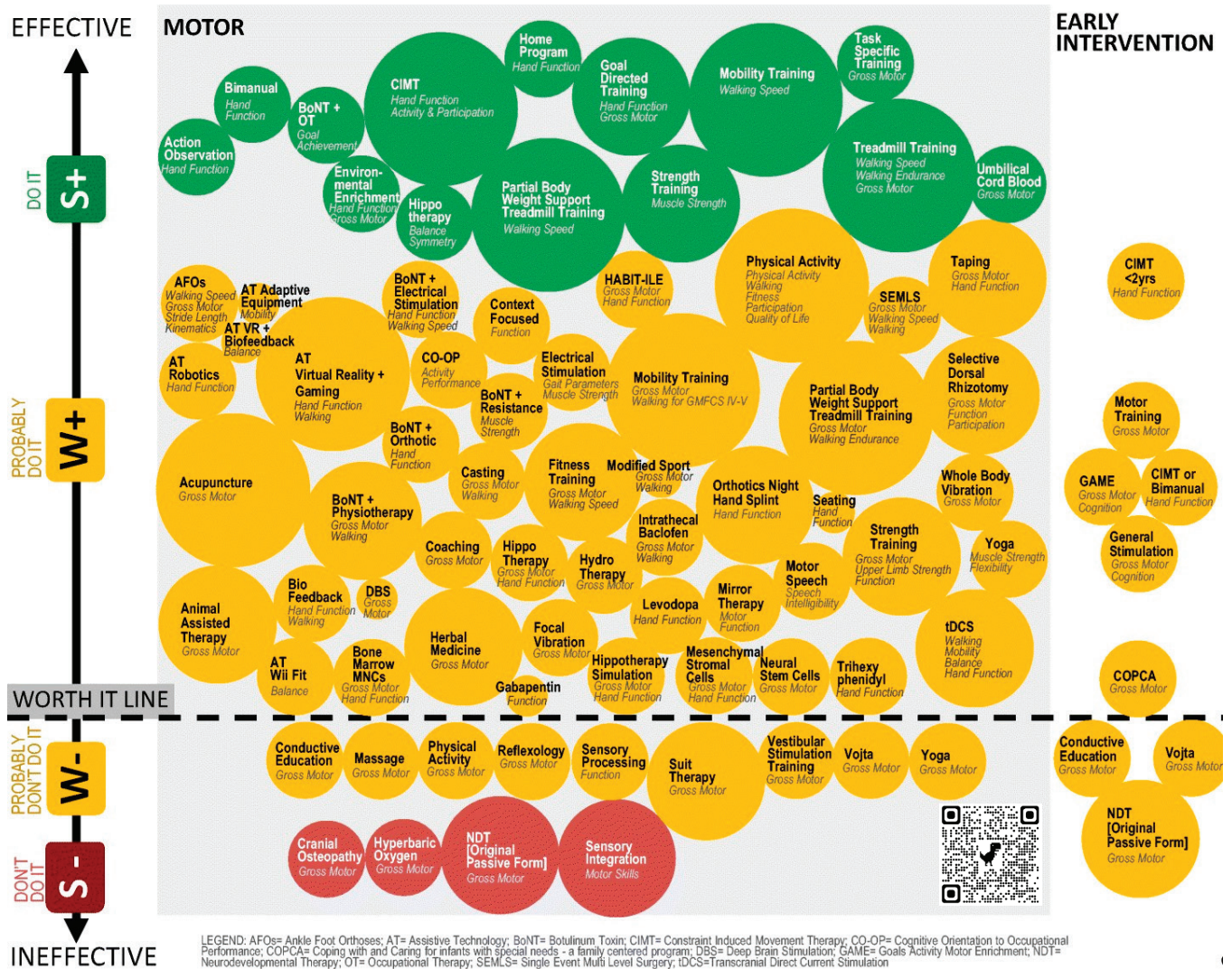
Less than last week
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 Much more than last week
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 Enhanced our daily routines

Comments:

Topics

1. Overview of "green light" upper limb interventions including bimanual hand skills, embedding goal attainment into daily routines⁸
2. Upper limb domain: using the involved side as the assisting hand



8. Novak, I., Morgan, C., Fahey, M., Finch-Edmondson, M., Galea, C., Hines, A., Langdon, K., & et al. (2020). State of the evidence traffic lights 2019: Systematic review of interventions for preventing and treating children with cerebral palsy. *Current Neurology and Neuroscience Reports*, 20(3), 1-21. <https://doi.org/10.1007/s11910-020-1022-z>

Strategies for Daily Practice

AFTER COMPLETING THE THERAPY TOGETHER PROGRAM

SET GOALS

Have one to two goals that are meaningful and attainable.

SET ASIDE 15 MINUTES FOUR TO FIVE 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, pull up pants using two hands when potty training, brush teeth using two hands to put toothpaste on the toothbrush).

Use of the Assisting Hand

LEVEL A

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

LEVEL B

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 C

Work on using the assisting hand as a typical nondominant hand.

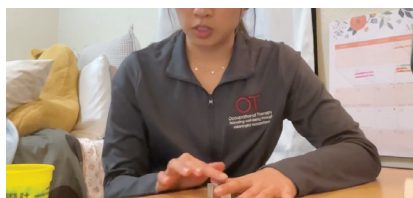
Toy recommendations: duplos®, pop beads, animals out of small containers

Therapy Together

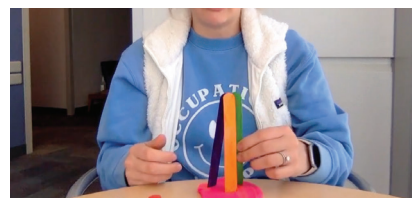
Week 8 Activities for Home (Preschool Age)



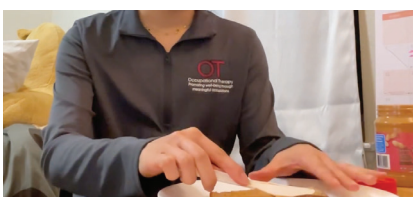
Gingerbread Houses
https://youtu.be/X7BEj_cZQ4M



Playdough Pieces
<https://youtu.be/zYOy4SusVNk>



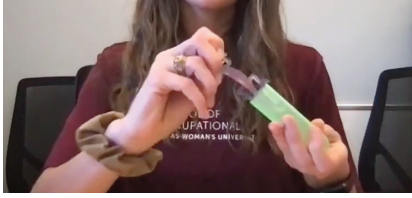
Building with Playdough and Popsicle Sticks
<https://youtu.be/t7ynTHZS184>



Making PB&J
<https://youtu.be/DdWqAeXinnM>

Therapy Together

Week 8 Activities for Home (Infants and Toddlers)




Bilateral Movements Level A
<https://youtu.be/5p2VdAZKOB1>




Bilateral Movements Level B
<https://youtu.be/kDoCDzUrREU>



Bilateral Movements Level C
<https://youtu.be/L5xqWhR9tPM>





Summary Video
<https://youtu.be/NHRF3CZa5RY>

THERAPY TOGETHER

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

Week 8 Summary

1. Work on use of the assisting hand, primarily focusing on level _____.
2. Practice at home for 60 minutes per day.
3. Complete the weekly log.

Caregiver Log - Week 8

Child's ID: _____

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?

DAY	TIME
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
TOTAL TIME:	

- This week, how well do you think your child used their affected hand during play sessions with the constraint on?
 - Not as good as last week
 - The same as last week
 - Better than last week
 - Much better than last week

- Throughout the week, how often do you think your child used two hands during play and daily activities?
 - Less than last week
 - The same as last week
 - More than last week
 - Much more than last week

- Throughout the week, how was implementing therapy at home?
 - Stressful to implement into daily routines
 - Difficult to implement into daily routines
 - Easily implemented into daily routines
 - Enhanced our daily routines

Comments:

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