



Family Support and Early Intervention Division
FAMILY INFANT TODDLER (FIT) PROGRAM



Early Childhood Evaluation Program – Technical Assistance & Consultation

Continuing Education series for NM FIT Providers

Presented by

Sandy Heimerl, PT, MS, DPT & Julia Oppenheimer, Ph.D.

UNM Associate Professor, and UNM Associate Professor, Clinical Psychologist, and Director for Early Childhood Clinical Services

Meg McLaughlin, MS, OTR/L, Kristine Domino, MS-CCC, SLP, J. Alyx Medlock, MS-CCC, SLP, Sarah Lancaster, LMSW, Mareth Williams, MD, Osana Abich Oliva, MD.

Early Childhood Evaluation Program (ECEP) Interdisciplinary Clinical Faculty and Staff



Family Support and Early Intervention Division
FAMILY INFANT TODDLER (FIT) PROGRAM



“High Risk” for Cerebral Palsy: Recognizing Red Flags and Talking to Families about Concerns

May 25 & May 27, 2022

University of New Mexico Health Sciences Center
Department of Pediatrics - Center for Development & Disability



Introductions and Housekeeping

- Today's ECEP Team
- We want to see you!
- We want to hear you!
 - Please use the chat or jump in with comments, ideas, and questions.
 - Goal is to share experiences and knowledge



Objectives for today




- Describe cerebral palsy and how it affects infants and young children
- List three red flags for concern for motor disorder
- If red flags identified, describe the next steps

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Family Support and Early Intervention Division
 FAMILY INFANT TODDLER (FIT) PROGRAM

Why is early identification important?



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- Early signs of Cerebral Palsy can be easy to miss, and too often professionals recommend a “wait and see” approach.
- The average age of diagnosis of Cerebral Palsy is around 2 years of age
- Cerebral palsy can be reliably diagnosed before 12 months
- When children are not identified early, the window of neuroplasticity is missed.

What is Cerebral Palsy?

(Novak et al 2017)

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“CP describes a group of developmental disorders of movement and posture, causing activity restrictions or disability that are attributed to disturbances occurring in the fetal or infant brain. The motor impairment may be accompanied by a seizure disorder or by impairment of sensation, cognition, communication and /or behavior. “

What is Cerebral Palsy



- Children with CP have trouble controlling their movement and posture
- CP results in activity limitations
- Causes are brain injury or atypical brain development early in life
- Type of CP is related to what parts of the brain were injured
- The brain injury does not get worse, though how it is manifested changes with development
- Often accompanied by other impairments

Cerebral Palsy

<https://www.cdc.gov/ncbddd/cp/data.html>

- Most common physical disability in childhood
- Lifelong condition
- Affects 1 in 345 children
- The incidence is higher for children born preterm or at low birth weight
- No definitive test for CP



Potential Associated Impairments

Remember, individuals with CP are all affected differently!



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- Epilepsy (42%)
- Speech and Language (55%)
- Feeding / Drooling
- Intellectual Disability (45%) or Learning Difficulties
- Vision and/or Hearing
- Constipation
- Pain - Hip Displacement
- Sleep Disorders
- ASD (7.5%)

Cerebral palsy is an umbrella term for a group of motor disorders



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Motor Subtypes

- **Spasticity:** Overactive muscles with velocity-dependent resistance to stretch (84% of cases)
- **Dyskinesia:** Involuntary twisted posturing (dystonia) or involuntary writhing movement (athetosis) (4-7% of cases)
- **Ataxia:** Loss of coordination, movement with a shaky or tremulous quality (4-6% of cases)
- **Hypotonia:** Generalized low tone (2% of cases). Hypotonia is not a universally agreed subtype and not used by some international registers and countries

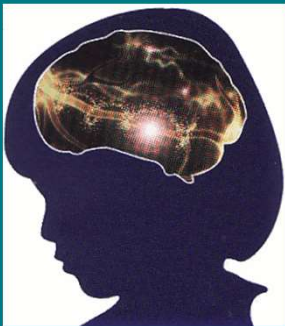
Spastic CP - Further Categorization

- **Hemiplegia:** One side of the body involved (39% of spastic CP)
- **Diplegia:** Both legs affected. Legs affected more than the arms (38% of spastic CP)
- **Quadriplegia:** All four limbs and trunk are affected (24% of spastic CP)

Original Seated version of the Go Baby Go technology



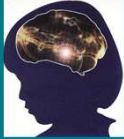
Neuroplasticity



The peak neuroplastic period when the brain is actively “sprouting and pruning in response to activity,” this critical window for intervention to be most effective is often missed when diagnosis of CP is delayed.

(McIntyre et al 2011)

Neuroplasticity



Why is early identification important



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- Brain development occurs most rapidly in the first 2 years of life
- This is when the brain is most susceptible to change
- This is when it is important to optimize neuroplastic changes and provide intervention
- Intervene early to get the best outcomes for the children

Motor Outcomes



59% of children will walk

8% will walk with an assistive device

33% have limited to no walking ability



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RED FLAGS before 6 months: Signs for PT/OT Consult

- Persistent fisting of the hands past 4 months
- Persistent orientation of the head to the side beyond 4 months
- Persistent head lag beyond 4 months
- Repetitive opening and closing of the mouth
- Stiffness or tightness in the legs





Other RED FLAGS: Appearing after 5 months of age

- Inability to sit by 9 months
- Inability to take weight through heels and forefoot
- Hand function asymmetry

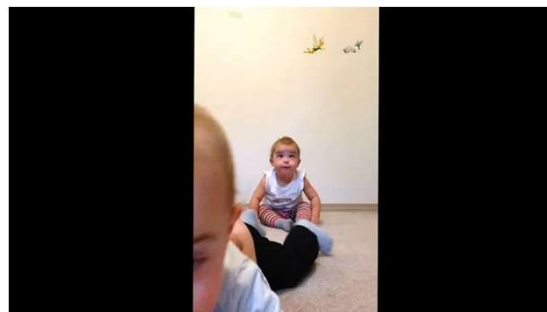


Red flags- Appearing after 10 months



- Crawls in a lopsided manner
- Scoots around on his buttocks or hops on his knees
- Unable to stand without support
- Difficulty getting to standing position from the floor.

Examples of CP



Examples of CP



What you might hear from parents...

- Any indication that the baby is not moving

Comments from parents or caregivers

- “Lazy” baby
- Observant or watchful baby
- Babies who sleep excessively
- Comments about how “strong” a baby is



Who Can Recognize Early Signs of CP

You have the important role of recognizing early signs of motor impairment

1. Watch for early signs
2. Listen to parents*
3. Talk to parents & Share your observations

***Parental concern alone** is a valid reason to trigger formal diagnostic investigations and referral for therapy services



WHY

Get the best Outcomes for the children



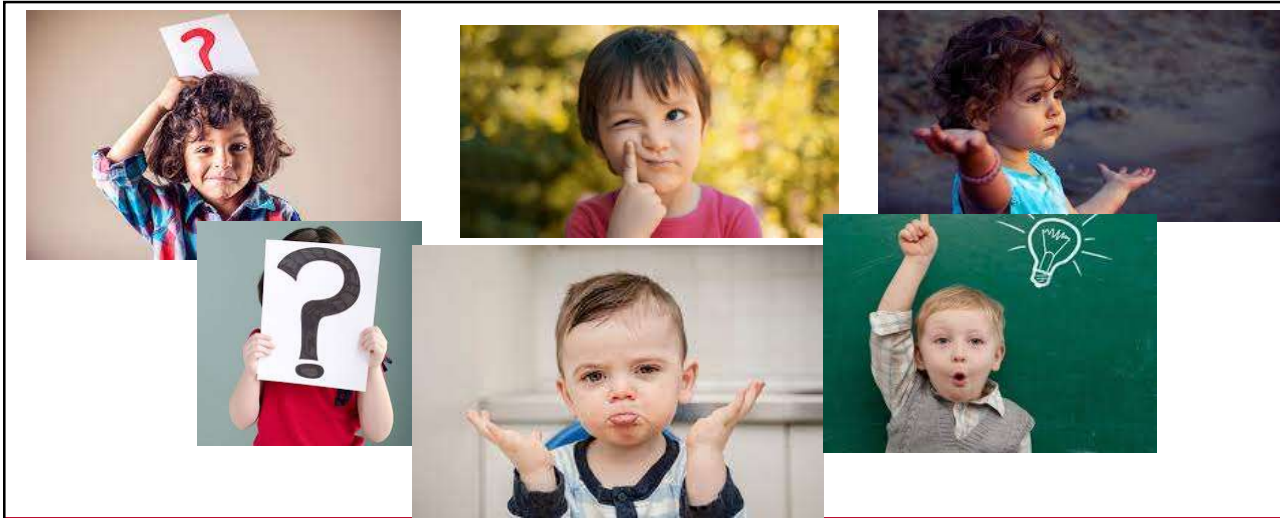
Decision Tree for Early Identification of Motor Disorder Guidelines for the Family Infant Toddler Program		
Signs prompting PT or OT Evaluation before 6 months of age		Signs prompting PT or OT Evaluation after 6 months
INFANTS < 6 MONTHS WITH KNOWN RISK	INFANTS < 6 MONTHS WITHOUT KNOWN RISK	INFANTS > 6 MONTHS ALL EARLIER SIGNS AND
Prematurity	Persistent orientation of head to side beyond 4 months	Inability to sit independently by 9 months
Encephalopathy	Persistent fisting of hands beyond 4 months	Inability to take weight through flat feet when supported in standing
Stroke or Intraventricular Hemorrhage	Persistent head lag beyond 4 months	Hand function asymmetry – strong hand preference
Intrauterine Growth Retardation	Stiffness or tightness in the legs	Parental Concern
Parental Concern	Feeding issues	

What if **RED FLAGS** are identified?

- Talk to your team & include your PT, OT, and / or SLP
- Talk to parents – what are they seeing?, what are their concerns?
- Further assessment considered – Therapist completing the Hammersmith Infant Neurological Examination (HINE)
- Initiate PT and / or OT services/consult as available (don't wait for a diagnosis to start intervention!)
- Encourage parents to talk with child's PCP – consider referral to medical specialist such as neurology
- Consider referral to ECEP for Medical / Motor Evaluation that would include the HINE

Benefits of CP Diagnosis

- Knowing high risk of CP and type of CP will **guide treatment decisions**
- Screening and monitoring for **conditions that may accompany CP** (i.e., seizures, visual impairment, hip displacement)
- **Speeds** up the process of **insurance approval** for: medication, equipment, therapy services and/or in-home care
- Allows parents to **better help** their child
- Gives parents ways to **organize and strategize** around their child's specific needs.



Inquiries and Questions?



Overview of Cerebral Palsy

<https://www.youtube.com/watch?v=pm6BnzsqQbQ>



Resources for Providers and Parents

CP Channel- Download for Free: <https://www.yourcpf.org/cproduct/cp-channel/>

CP Foundation: <https://www.yourcpf.org/expert-videos/early-detection/>

United Cerebral Palsy: <https://ucp.org/>

Centers for Disease Control – CP: <https://www.cdc.gov/ncbddd/cp/index.html>

CAN Child: <https://www.canchild.ca/>

AACPDM: <https://www.aacpdm.org/about-us>

Cerebral Palsy Research Network CP tool kit: <https://cpnowfoundation.org/toolkit/>



Join us for more ECEP Office Hours:

Session 4: **Recognizing Red Flags and Talking to Families about Cerebral Palsy and other complex neurodevelopmental issues**

May 25 at 4pm and May 27 at 8am

Session 5: **Family-Focused Intervention Strategies for Feeding Issues, Sensory processing, and Motor Differences/Cerebral Palsy**

June 22 at 4pm and 24 at 8am

To be continued- starting again September 2022!



Other upcoming trainings:

FIT Professional Development Day – June 16, 2022, 8:30 – 9:30am

Recognizing Red Flags and Talking to Families about Specific Diagnostic Concerns

Presenters: Julia Oppenheimer, Ph.D., Alyx Medlock, MS-CCC, Kristine Domino, MS-CCC, Meg McLaughlin, MS, OTR/L, Mareth Williams, MD, Osana Abich Oliva, MD, and Sarah Lancaster, LMSW

We will facilitate case-based learning with collaborative discussion and a small-group focus to build provider skills and knowledge around recognizing autism and sharing concerns with families. We will share a number of videos during the session to illustrate behaviors observed in children with autism compared to typically developing children. We will also review the SPIKES model for sharing difficult information with families. We hope to address specific questions and- provide opportunities to practice these skills during this session.

Click here to register:

https://reg.learningstream.com/reg/event_page.aspx?ek=0033-0021-8f930139b7e64b49aa4f5723be2ea9c9

Early CP Detection and Intervention: Training for FIT providers - June 2, 2022 12-1pm, via zoom

Understanding Cerebral Palsy in Young Children and Recognizing Early Red Flags

Presenter: Sandy Heimerl, DPT, Member of the NM Early CP Detection and Intervention Task Force, ECEP Physical Therapist

Register by May 31 at

https://us06web.zoom.us/webinar/register/WN_9GWL7keYSIW0NYG5kpcaNA

Certificates provided for participation and CEUs for counselors and therapists (pending board approvals). For questions contact hsc-nm-lend@salud.unm.edu



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Additional Information



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Why is early identification important

- If not caught early, can have cascading effect on brain development, lead to significant motor, social, language, and cognitive deficits and the negative impact of associated impairments.

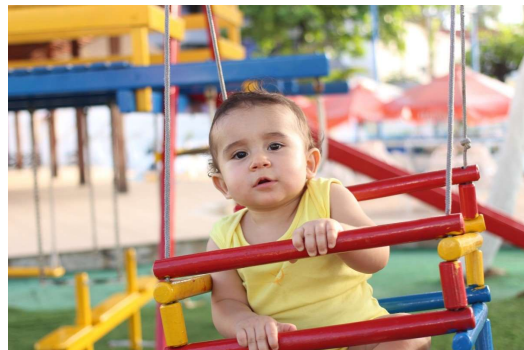
Early Intervention that includes evidence based practices and developmental surveillance are key to set children up for success, determine how they learn, and support families!



Intervention examples

- Child-initiated movement
- Task specific
- Variable practice
- Environmental modification
- Parent coaching and education

Gmmash & Effgen 2019



What does this mean?

Interventions are most successful when they are incorporated with

- Meaningful play
- Family collaboration
- Functional goals
- Social elements

What does the research show to be ineffective?



Passive movement

Lack of directed movement or functional movement

Not fun - Negative emotional response

Lack of successful completion of the task

Lack of intensity – no follow through – or parent coaching

Contact information

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