



**International Clinical Practice Guideline: Interventions that Improve Function for Children & Young People with Cerebral Palsy**  
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**Interventions that improve function**

Child actively practices the goal or task they wish to achieve

Practice the whole goal, within the 'real world' for generalization

Health condition

Body functions/ Body structures

Activities

Participation

Environmental factors

Personal factors

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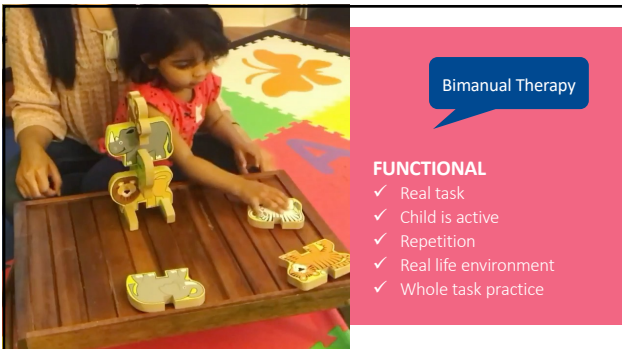
**FUNCTIONAL**

1. Bimanual
2. CIMT
3. CO-OP
4. Goal Directed Training
5. HABIT-ILE
6. Treadmill Training

**ADJUNCTIVE**

1. Botulinum toxin
2. Electrical Stimulation
3. Taping or Orthotics

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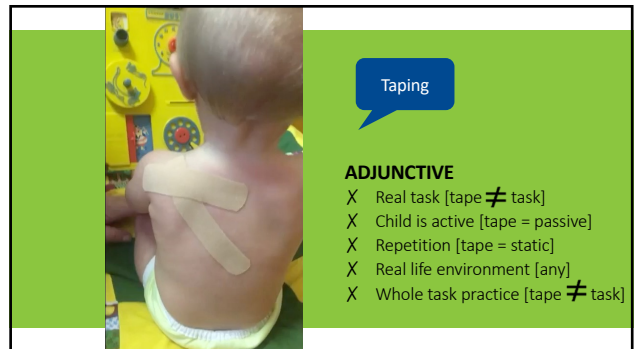


**Bimanual Therapy**

**FUNCTIONAL**

- ✓ Real task
- ✓ Child is active
- ✓ Repetition
- ✓ Real life environment
- ✓ Whole task practice

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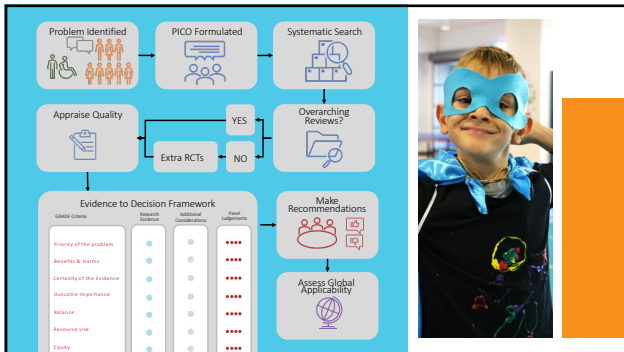


**Taping**

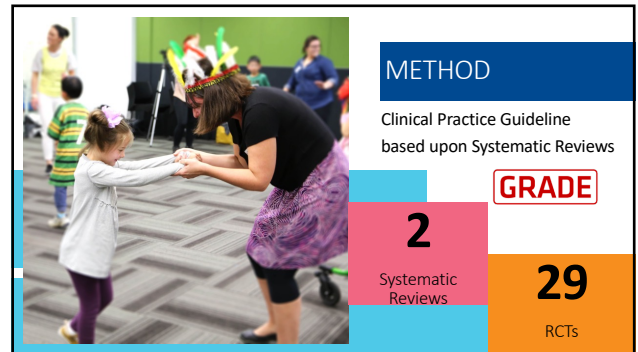
**ADJUNCTIVE**

- X Real task [tape ≠ task]
- X Child is active [tape = passive]
- X Repetition [tape = static]
- X Real life environment [any]
- X Whole task practice [tape ≠ task]

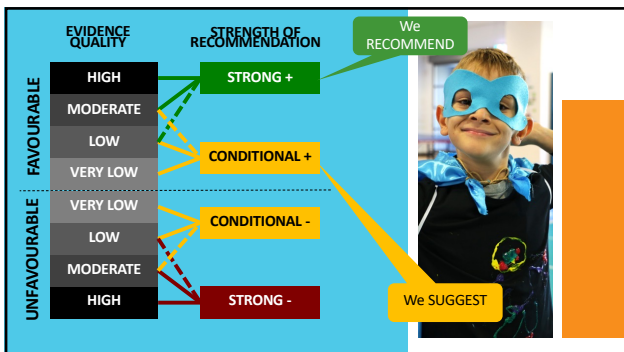
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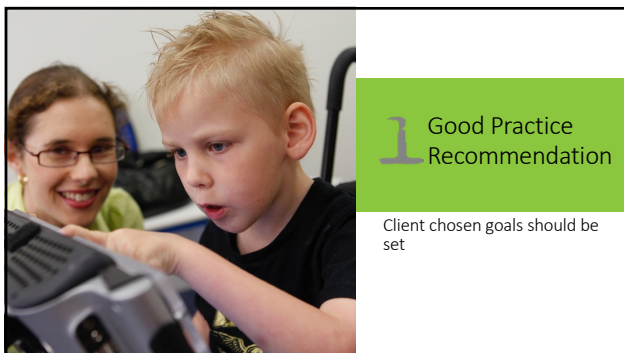
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### 3 Good Practice Recommendation

Intervention should directly target the child's set goals

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### 4 Good Practice Recommendation

Intervention should be enjoyable and motivating for the child

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### 5 Good Practice Recommendation

Practice of goals should occur within the child's home or community environments where possible

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### 6 Good Practice Recommendation

Parent-delivered intervention can be used to supplement face-to-face therapy when appropriate education is provided

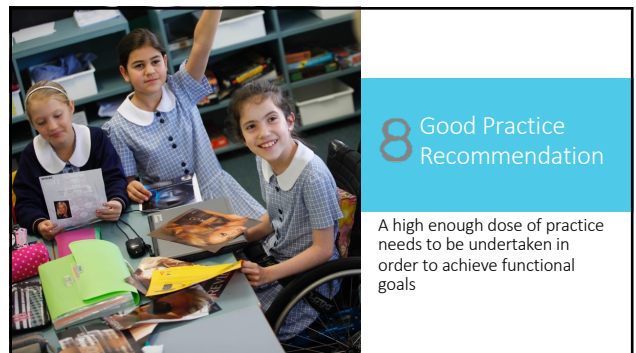
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### 7 Good Practice Recommendation

Children and parents should remain the decision makers throughout

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### 8 Good Practice Recommendation

A high enough dose of practice needs to be undertaken in order to achieve functional goals

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**9 Good Practice Recommendation**

A team approach should be used to set goals and intervention regime

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**10 MOBILITY**


GMFCS I-III

We RECOMMEND mobility training using

- goal-directed approach with
- practice within a real-life context

*Compared to NO intervention OR body functions and structure intervention*

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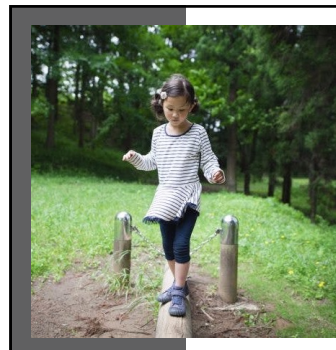
**Walking Speed & Endurance**

We SUGGEST:

- overground training (+/- a walker) (GMFCS I-IV)
- treadmill training (GMFCS I-III)
- HABIT-ILE (GMFCS I-IV)

*Compared to NO intervention OR body functions and structure intervention*

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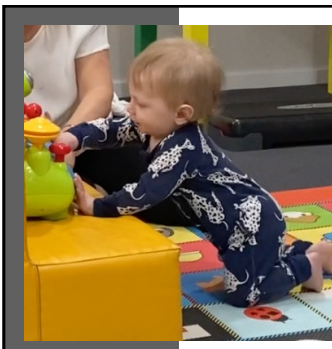
**Functional Mobility & Balance**

We SUGGEST:

- Goal-Directed Training (GMFCS I-III)
- HABIT-ILE (GMFCS I-IV),

*Compared to NO intervention OR body functions and structure intervention*

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**Gross Motor Function**

We SUGGEST

- altering environmental factors ( "context focused") (GMFCS I-IV) OR
- child focused therapy (treatments that alter the child related factors) (GMFCS I-IV)

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**11 HAND USE**

MACS I-IV

To improve goal achievement in hand use we RECOMMEND:

- goal-directed or
- task specific approach

*Compared to NO intervention OR body functions and structure intervention*

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### Functional Goals

We **RECOMMEND**

- CIMT (MACS I-III)
- Bimanual therapy/HABIT (MACS I-III)

We **SUGGEST**

- CO-OP (MACS I-IV)
- HABIT-ILE (MACS I-IV)

*Compared to NO intervention OR body functions and structure intervention*

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### Functional Goals

We **RECOMMEND**


- HABIT (MACS I-III)

We **SUGGEST**

- CO-OP (MACS I-IV)
- HABIT-ILE (MACS I-IV)

*Compared to NO intervention OR body functions and structure intervention*

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## 12 SELF CARE

To improve self-care goal achievement we **RECOMMEND**

- task-specific approach (for skills development) plus
- adaptive equipment (for safe, timely independence)

*Compared to NO intervention OR body functions and structure intervention*

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### Self Care Skills

We **RECOMMEND**

- Goal-Directed Training (GMFCS I-IV)
- CO-OP (GMFCS I-IV)
- HABIT (MACS I-III)

We **SUGGEST**

- HABIT-ILE (GMFCS I-IV)

*Compared to NO intervention or body functions and structure intervention*

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### Independence

We **SUGGEST** adaptive equipment (GMFCS IV-V)

- to improve independence
- to improve safety
- decrease caregiver burden during self-care tasks

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## 13 LEISURE

We **SUGGEST** combining:

- Goal-directed approaches (CO-OP, Goal-Direct Training, HABIT-ILE for GMFCS I-IV; and Goal-Directed Training for GMFCS V) +
- Overcoming environmental, personal & social factors that limit participation

*Compared to NO intervention or body functions and structure intervention*

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## Take Home Points

- To improve function, intervention should focus on active practice of CLIENT'S GOAL
- BEST PRACTICE includes client-chosen goals & whole task practice
- EDUCATION and support should be provided to empower families in decision-making
- CHILD/FAMILY PREFERENCES, age and ability should inform choice of interventions



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“ It is important to earn your achievements. Nobody has given them to me, I've done it myself. I've earned them. ”

“ Independence has made a big difference to me. I now believe in myself. ”

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