

## **Appendix A**

### **Tips for Practice**

This Appendix contains 6 Tips for Practice sheets that list key intervention strategies discussed in the narrative chapters of this *CVI Companion Guide*. We intend these easy-to-read sheets to be used with caregivers and families to promote the development of infants and toddlers with CVI. Using these sheets as a starting point, encourage caregivers and families to identify and select interventions they want to focus on during a specific period of time, for example, from one home visit to the next. Practitioners are advised to read the narrative chapters of both the *CVI Companion Guide* and the *Developmental Guidelines* so they can explain and clarify intervention strategies listed on the Tips for Practice sheets and generate specific examples that relate to an individual child and family.

There is no recommended sequence for using each of the Tips for Practice sheets. However, the *Tips to Support Learning* sheet may be most helpful as an introduction to interventions that promote overall development across domains. Other sheets may be selected and discussed based on the caregivers' or families' priorities for their children and selected IFSP outcomes.

#### List of Tips for Practice Sheets:

- *Tips to Support Learning* provides general strategies that relate to all developmental domains.
- *Tips to Support Early Relationships* identifies strategies to facilitate social-emotional development.
- *Tips to Promote Early Conversations* provides strategies focused on communication development.
- *Tips to Promote Thinking* provides strategies to support cognitive development.
- *Tips to Support Exploration Through Touching, Reaching, and Grasping* provides strategies to address fine-motor development.
- *Tips to Promote Exploration Through Moving* provides strategies to encourage gross motor development.

# Tips to Support Early Learning

Consider these tips to support the early learning of infants and toddlers with CVI (check those selected for use).

## How can I create an environment that supports early learning?

- Provide calm, organized, and distraction-free environments by considering these questions:
  - Are there lights (sunlight through windows, bright overhead lights) that may distract the child's visual attention from interactions?
  - Would the child be more attentive in more subdued lighting situations?
  - Is the child seated on a carpet or bedspread with busy patterns or different colors that distract the child?
  - Would the child be more visually attentive on a quilt with a plain single colored background?
  - Are there background sounds from the traffic or TV that may interfere with the child's listening skills during an interaction?
  - Would the child be more attentive to speech and target sounds in a quiet area without background sounds?
- Offer objects that are easy for the child to perceive and act on. For example, offer a brightly colored rattle that is easy to grasp and shake.
- Have the child lean against a table or highchair tray as a guide to locate objects on them.
- When the child is ready, provide opportunities for cause-effect play. For example, the child pushes a switch and the toy makes a sound.

## How can I support early learning?

- Position yourself and target objects within the child's usual visual field, viewing distance, and reach.
- Identify and use the child's preferences and interests to support participation in activities. How can these be used to be the focus of an interaction or play?
- Make sure the child is positioned comfortably and securely with his or her hands available for exploration.
- Offer your arm as a tactile bridge that the child can trace along to find a desired object.
- Use physical or verbal prompts when needed to encourage participation, and gradually fade them when appropriate. For example, use hand-under-hand guidance to help the child explore a toy.
- Notice the child's focus of attention and describe or label it.

- Pace spoken words and actions to engage the child's attention. For example, use slow deliberate actions and exaggerated rhythmic intonation.
- Provide sufficient wait time to allow the child to perceive and respond to interactions.
- Be aware when the child needs a break during an interaction and provide it.
- Attend to the child's actions and vocalizations and imitate them to develop a back-and-forth interaction.

### **What kinds of everyday activities should I try?**

- Try activities that follow the child's lead and build on what the child can do and what the child wants to do.
- Consider how to embed learning opportunities within everyday activities:
  - Provide repeated times to practice skills in meaningful ways.
  - Offer a clear beginning, middle, and ending to an activity.

### **Give me one last tip!**

An infant and toddler will learn best through active engagement with people and things in the environment that respond to his or her abilities and interests.

# Tips to Support Early Relationships

Consider these tips to support the social-emotional development of infants and toddlers with CVI (check those selected for use).

## How can I create an environment that supports early positive relationships?

- Provide structured and nurturing environments:
  - Predictable daily routines help children to anticipate what is about to happen, which may lead to participation.
  - Calm, organized, and secure environments encourage interaction.
  - Hold the child and offer affection and comfort.
  - Let the child know when an unexpected object or person approaches so that he or she is not taken by surprise and startled.

## How can I support early positive relationships?

- Adjust sensory input and experiences to help the child maintain a calm and alert level of arousal:
  - Whether a child is under-aroused or over-aroused depends upon the child's temperament, sensory needs, and the environment in a particular situation.
  - A child who is over-aroused needs structured and muted sensory experiences.
  - A child who is under-aroused needs heightened and varied sensory experiences.
- Recognize, interpret, and respond to a child's signals indicating interest, disinterest, excitement, and distress.
- Teach the child how to reject a disliked object or reach toward you for comfort and security through modeling.
- Help the child explore faces of family members and point out characterizing features, for example, "That's daddy's prickly chin." Develop and use identification cues such as something the person wears (e.g., Mom wears glasses) or something the person does to greet child (e.g., the early interventionist taps fingers on child's palm or sings a familiar greeting song).
- Give the child sufficient time to discriminate facial expressions by slowing them down, for example, count silently to 5 or 7 (depending on the child) when making a positive facial expression (raise eyebrows, open eyes wide, and open mouth) to express delight.
- Provide anticipatory cues to signal an upcoming activity so the child can prepare for it, for example, before picking the infant up, touch the child under his or her arms and slowly say "Up, up, up." This may reduce startle and upset behaviors.

- Create and play mutually enjoyable turn-taking games, for example, “row, row, the boat,” that facilitate opportunities for positive interactions and play.
  
- Promote joint attention:
  - Play interactive games that focus the toddler’s attention on the adult’s face (e.g., “eyes, and ears, and nose” or put a sticker on the adult’s nose).
  - Hold a small favorite toy close to one’s own face so the child will reach for it.
  - Imitate a child’s behaviors in play and encourage the child to imitate others, for example, waving “bye-bye.”

### What kinds of everyday activities should I try?

- Make sensory experiences predictable:
  - Show the child the source of a sound that might be startling.
  - Develop a predictable sequence for familiar and favorite turn-taking or other sensory games so the child knows what to expect.
- Slow down the pace and sequence of actions in an interaction to help the child handle sensory input, for example, playing a “tickle-tummy game.”
- Allow the child to control sensory input, whenever possible, for example, do not force a child’s hand into sticky substances such as finger paint or sand if he or she rejects doing so.
- Provide a choice of objects or activities when appropriate during the daily routine, for example, toys, food or drink, or clothing.
  - First, offer a favorite or preferred item. The child’s action (taking, touching, or looking at it) indicates “I want it.”
  - Next, offer a favorite item with a disliked or meaningless object. The child is likely to choose the preferred item.
  - Finally, offer two preferred objects so the child can choose either or both.

### Give me one last tip!

Responsive relationships and nurturing environments are essential for an infant’s healthy social-emotional and brain development. Early social relationships provide the cornerstone for all development.

# Tips to Promote Early Conversations

Consider these tips to support the communication development of infants and toddlers with CVI (check those selected for use).

## How can I create an environment that supports early conversations?

- Make sure that background sounds are reduced or eliminated to enhance the child's attention to the interaction.
- Encourage everyone to be within child's eye level, usual visual field, and viewing distance when interacting.
- Provide sufficient "wait" time for the child to respond to an interaction. How long to wait will depend on the child's response time. Some caregivers find it helpful to count silently to 5 or 10 or more.
- Interpret the child's facial expressions, movements, and sounds as communication and respond to them to create back-and-forth early conversations.
- Create and encourage conversations during everyday activities and routines.

## How can I support early conversations?

- Use the **4Ss** to simplify language:
  - **S**ay less: use short sentences
  - **S**tress: emphasize key words
  - **G**o **s**low: speak at a slow pace
  - **S**how: use gestures, objects, pictures that represent key words
- Use your voice to encourage listening skills.
  - Emphasize or lengthen an initial sound (e.g., "ddawg-ee").
  - Whisper a word with a voiceless initial sound (e.g., "t-oe").
  - Vary pitch, duration, or intensity (e.g., "AALL done").
  - Pause briefly before saying the key word.
- Sandwich a visual skill between two speech sounds/words to provide sequential sensory information by saying the word, showing the item, and then repeating the word (e.g., calling child's name, making eye contact, then calling the child's name again).

- Combine a spoken word or vocalization with an action (includes movement, tactile, or visual stimuli) (e.g., say “Down” while putting the child down).
- Interrupt an ongoing familiar and favorite movement activity by pausing and waiting for the child to signal a request for more. For example, stop dancing with the child in your arms, stand still, and wait for the child to make a vocalization or action with his or her body to indicate “I want more dancing.” Interpret by saying “You want more dancing?” and respond by immediately resuming the activity.

### What kinds of everyday activities should I try?

- Describe or label what the child is looking at and doing during everyday activities.
- Read developmentally appropriate books that relate to the child’s everyday experiences.
- Use simple action songs and rhymes that describe what the child is doing during a daily routine (e.g., “Walking, walking, walking, 1, 2, 3. Walking, walking, walking, come to me”).
- Repeat target words at natural opportunities 3-5 times during an interaction. For example, “Let’s change your *diaper*.” “Dirty *diaper* off.” “Clean *diaper* on.”
- Add a bit more to the child’s actions and vocalizations to expand the child’s communication development and create a conversation:
  - Child makes an action and you label it (e.g., touches your mouth and you say “Mama’s mouth”).
  - Child makes a sound and you interpret it and say the word based on the context and the child’s focus of attention (e.g., child says “buh” and you respond “Bottle. Yes, Bottle.”).
  - Child says one word and you expand to two or three words (e.g., child says “cookie” and you respond “Yummy, chocolate cookie!”).

### Give me one last tip!

Long before children develop speech, they engage in early conversations through facial expressions, body movements, and vocalizations. These back-and-forth interactions with responsive caregivers provide a significant foundation for later conversations.

# Tips to Promote Thinking

Consider these tips to support gross motor skills of young infants and children with CVI (check those selected for use).

## How can I create a cognitively rich environment?

- Make sure areas for play are uncluttered and the child is in a comfortable and secure position.
- Try using smaller spaces, such as a tent or corner of a room to play and interact.
- Use objects that the child can perceive (e.g., objects that are easily seen, heard, and are familiar) and avoid toys with complicated patterns.
- Reduce background noise, such as a TV in the background, during play.
- Ensure that the child has the attention of his/her caregiver (turn off your phone or limit environmental distractions) when engaging in joint activities or play.
- Avoid overstimulating places, especially when playing or interacting with the child.

## How can I support cognitive development?

- Encourage and praise the child when he or she imitates a sound or action.
- Prolong facial expressions and pair with verbal descriptions of your feelings (e.g., “Hello, I am so happy to see you!” paired with a large open-mouthed smile).
- Slow down your interactions and wait longer than usual for the child to respond.
- Provide slow, simple communication that matches the child’s experiences during everyday activities.
- Make sure the child is positioned securely and comfortably during play to improve attention and encourage interactions.
- Focus on what the child can do and wants to do as you engage in play and interactions.
- Provide activities that respond to the child’s actions.
  - Use toys that make a sound, light up, or move when the child pats them.
  - Show the child how to turn the light on a toy on and off.
  - Prompt the child to move his or her hand with a string attached to a balloon and to look at the movement of the balloon.



## What kinds of everyday activities should I try?

- Activities with turn taking or opportunities for imitation and memory.
  - Build a tower of blocks.
  - Say, “Boom!” and knock it down.
  - Say “Uh-oh!” and stack the blocks again.
  - Pause to see if the child will imitate you knocking the blocks down.
- Activities with songs that support memory through repetition of words, actions, and facial expressions
  - This is the way we wash our hands, wash our hands, wash our hands
  - Hello (name), hello (name), hello (name), happy you are here
  - Clap, clap, clap our hands, clap our hands so slowly. Clap, clap, clap our hands, claps our hands so fast.
- Activities where caregiver and child both pay attention to the same object or toy
- Activities that are “just right” for the child
  - Not too overwhelming emotionally
  - Provide interesting sensory input, but not to the point of distraction or distress
- Activities that allow the child to transfer what he or she knows or can do to other persons, settings, or materials
  - From waving bye-bye when a caregiver leaves the home to waving bye-bye to the early interventionist at the end of the home visit
  - From waiting his or her turn with a caregiver at home to waiting a turn in a playgroup
  - From problem solving how to get a favorite toy out of a box at home to taking it off a shelf and removing the toy at another family member’s home
  - From playing with one favorite toy to playing with two toys at the same time
  - From drinking from a favorite cup to drinking from a different cup

## Give me one last tip!

When children perceive, they begin to understand. When children understand, they begin to remember. When children begin to remember, they learn.

# Tips to Support Exploration Through Touching, Reaching, and Grasping

Consider these tips to support fine motor skills of young infants and children with CVI (check those selected for use).

How can I create an environment that supports exploration through touching, grasping, and reaching?

- Make sure areas for play are free from distractions from the targeted toys or focus and ensure that visual items are spaced apart.
- Provide play materials that are highly visible and of high interest.
- Offer items that are pleasant to touch and easy to grasp.
- Present materials that engage vision at first, then add sound and touch to them to encourage attention to more than one form of sensory input at the same time (so long as sound and touch do not overwhelm or distract the child).
- Create quiet, smaller spaces that reduce sight and sound distractions when necessary to encourage attention, presenting one toy at a time.
- Reduce background noise, such as TV audio in the background, so the child can focus on playing.
- Present opportunities to explore items within daily routines to support memory and provide regular practice for touching, grasping, and reaching.

How can I support exploration through touching, grasping, and reaching?

- Make sure objects are interesting to the child to touch and within reach.
- Position yourself at the child's eye level to offer objects within the child's usual visual field and distance for viewing.
- Be sure the child is in a comfortable and secure position with hands available to promote touching, reaching, or grasping.
- Keep toys or objects in the same location and ensure that they are sufficiently spread apart so the child can see each one.
- Have toys on a table/tray with child's body leaning against the edge of the flat surface as a physical guide.
- Encourage children who turn away when reaching to look at the toy right after they have reached for it.
- Make a tactile bridge to an object with your arm and have child feel along your arm to find it.

- Encourage scribbling and other pre-writing skills matched to the child's vision, motor, and touch preferences.
- Provide both familiar and new objects for the child to explore to match his or her interest at a particular time.
- Imitate a child's fine motor movements and build on them to add enjoyable ones at the next level.
- Use movements and verbal/tactile feedback that the child can follow and understand.

## What kinds of everyday activities should I try?

- Activities with turn taking or opportunities for imitation of fine motor actions
  - Hide a favorite toy under a blanket and then pull it off.
  - Build a tower, "Say Boom!" Knock it down, say, "Uh-oh." Restack blocks. Pause to see if the child will imitate pushing them over.
- Activities with songs that support memory of fine motor activities
  - This is the way we pick up our toys, pick up our toys
  - Head, shoulders, knees, and toes
  - Open shut them, open shut them, give a little clap.

## Give me one last tip!

When children touch, they become interested in new ways of exploring the world. When they become interested in the world, they begin to grasp and reach even more. Touching, reaching, and grasping become learning in action.

# Tips to Promote Exploration Through Moving

Consider these tips to support gross motor skills of young infants and children with CVI (check those selected for use).

How can I create an environment that supports exploration through moving?

- Keep play areas and travel routes clear and uncluttered.
- Keep visual landmarks in consistent places and at the child's eye level.
- Simplify the visual background to reduce visual distractions and promote attention.
- Reduce or eliminate (when possible) background noise, such as sound from a TV or radio.
- Limit infants' and toddlers' screen time on tablets or phones so they can interact with people and explore the environment.
- Limit initial exposure to fast-moving objects and only introduce them when the child feels confident around them.
- Ensure that objects in motion move at a pace that the child is able to perceive and understand.
- Keep play areas free of unexpected low-lying objects that might be a safety concern.
- Be sure that objects in the lower visual field can be seen before adding them to an environment in which the child is expected to move about.
- Ensure that key landmarks along travel routes are highly visible to the child.
- Provide "safe spaces" (such as a quiet and comfortable corner) in which the child can control sensory input and where the child can relax when exposure to stimuli becomes overwhelming.

How can I support exploration through moving?

- Play musical games to teach body parts, body movements, and imitation of gestures.
- To guide movements, use gentle directional touch prompts under a child's arms or legs. Avoid full physical contact that interferes with the child's freedom of movement.
- Pre-teach selected movements in action games used in playgroups.
- Imitate gross motor actions within interactive games and slowly model enjoyable movements at the child's next level of development for the child to imitate.

- Watch for ways to include movement activities and exploration within a child's daily routines to ensure regular practice to increase competence.
- Encourage unstructured solitary and social play experiences within safe, accessible environments.
- Encourage movement toward a visual goal that has been enhanced by such things as lights, contrasting colors, and patterns.
- Encourage children who fixate on a single riveting visual stimulus to move on to other activities by decreasing the intensity of the stimulus, finding another one that is more engaging, tapping on another visual target to divert the child's attention, or redirecting the child to another location.
- Introduce the child to the physical layout and main features of a new play space or new environment and allow time for exploration.
- Teach children visual search methods to locate objects around them, taking into account any limitations in their field of vision or issues following visual targets in any direction.
- In addition to visual cues, encourage the use of sounds and smells as landmarks.
- Go to gatherings early and leave early should they become noisy and crowded.
- Go to busy public places at quiet times.
- Introduce new environments when they are quiet and distractions are minimal; slowly and systematically bring the child into these environments as they become busier and more complex.
- Provide frequent breaks of quiet time as the child needs them.
- Provide specific verbal explanations of what is happening in the environment that describe what is happening in meaningful ways that the child understands.

### **Give me one last tip!**

When children move and explore, they gain control of their surroundings and expand their learning. Gradually, as children direct their own learning and increase their competence, they are able to move about and interact with the world in complex and unique ways.

## **Selected Websites**

**CVI Scotland** [www.cviscotland.org](http://www.cviscotland.org)

## **Evidence-Based Practices that Promote Early Development**

### **Center on the Developing Child at Harvard University**

<https://developingchild.harvard.edu/>

Online resource based on research on early brain development, the effects of the social and physical environment on early development, and the importance of response caregiving. Includes papers and video clips.

### **Center for Early Literacy Learning (CELL)**

<http://www.earlyliteracylearning.org>

Provides research synthesis of studies of infants, toddlers, and preschoolers with and without disabilities, and handouts in for parents (English & Spanish) and practitioners on activities to enhance children's early interactions and literacy development.

### **Center on the Social and Emotional Foundations for Early Learning (CSEFEL)**

<http://csefel.vanderbilt.edu>

Provides information on the social-emotional development of young children (birth-5yrs). Online research synthesis on infant mental health, early childhood mental health consultation, and screening and assessing social competence, and practical strategies, training modules, and video clips.

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