Tip Sheets

Specific Strategies to Support the Development of Executive Function Skills in Infants and Toddlers: 18 to 36 Months



Executive function skills are mental processes that help a person successfully plan, focus, remember, and juggle multiple tasks by filtering distractions, prioritizing tasks, setting and achieving goals, and controlling impulses.

These skills are crucial for

learning and development and enable positive behavior and self-regulation. Executive function skills rely on three types of brain function:

- 1. Self-control (inhibitory control)
- 2. Working memory
- 3. Cognitive (mental) flexibility

These functions are highly dependent on each other, and the successful application of executive function skills requires them to operate together.

Inhibitory Control

Inhibitory control is the ability to master thoughts and impulses in order to resist temptations, distractions, and actions. This includes:

- Attention—Focus despite distractions
- Persistence—Remain on a task and complete despite frustration or temptation
- Self-control—Think before acting in order to control behavior, responses, and language
- Effortful control—Suppress one response in order to do another
- Self-regulation—Regulate emotions

Working Memory

Working memory governs our ability to retain information over periods of time and use it to accomplish something. This includes:

- Object permanence—Remember people or things even after no longer seen
- Long-term memory—Remember familiar routines and phrases over time

Cognitive Flexibility

Mental flexibility is the ability to easily and quickly switch perspectives of the focus of attention, adjust to changes in demands or priorities, and apply different rules in different settings. This includes the ability to think about new ways to solve problems.

Strategies for Development: 18 to 36 Months

Children are not born with executive function skills. They are, however, born with the potential to develop them. This development is aided by healthy relationships with adults and positive environmental conditions. Adverse environments resulting from neglect, abuse, and/or violence may expose children to stress, which impairs the development of executive function.

It is important to provide support for children in early care and education programs, at home, and in other settings. Adults can facilitate executive function development by establishing routines, modeling appropriate behavior, and creating and maintaining supportive, reliable relationships. Children can strengthen their developing skills through particular activities that foster creative play and social connection, teach them how to cope with stress, involve vigorous exercise, and provide opportunities for directing their own actions and decisions with decreasing supervision.

In using these activities, pay attention to the child's interests and select activities that are enjoyable and allow the child to determine how long to play.

Active Games

These activities require toddlers to focus and sustain their attention on a goal, inhibit unnecessary and ineffective actions, and try things in new ways if a first attempt fails. This is a learning process. Many of these activities will require frequent reminders and will probably be brief!

- Provide opportunities to try new skills, such as:
 - o Throwing and catching balls
 - o Walking on a balance beam
 - o Running up and down an incline
 - o Jumping
- Set up simple rules to follow for added working memory and inhibition challenges, such as running to a "finish line" and back.
- Play simple games that require children to attend to the words and do actions, such as:
 - o Ring around the Rosie
 - o Motorboat, Motorboat
 - o Teddy Bear, Teddy Bear
 - Finger plays

Conversation and Storytelling

Watch and narrate play to help toddlers understand how words can describe their actions.

- Ask questions like "What will you do next?" to help children pause and plan their next move.
- Tell stories about shared events to reflect on experiences. This helps the child hold the experience in working memory.

- Create simple books together.
- Label and talk about feelings to give children language to reflect on their feelings, which helps develop emotional regulation.

Matching and Sorting Games

Help children play simple matching and sorting games. This requires children to understand the rules that organize the activity, hold the rule in mind, and follow the rule.

- Encourage sorting games in which children take turns sorting by size, shape, or color.
- Engage in a silly sorting game such as putting small shapes in a large bucket and big shapes in a small bucket. This requires them to inhibit an expected action and use their selective attention and working memory.
- Provide simple puzzles that require attention to shape and color. Ask children about what shape or color they need or where they might put a certain piece if it does not fit in order to practice skills in reflection and planning.

Imaginary Play

Ask children questions about what they are doing as they begin to engage in simple imaginative play.

- Narrate what they are doing.
- Play along, and let the child direct the play.
- Provide a variety of objects, toys and clothing to encourage play.

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