

Eyes on



Executive functions

Help your child think before acting



PARENTS



Centre of Excellence
for Early Childhood
Development

STRATEGIC KNOWLEDGE
CLUSTER ON EARLY

child development



“Executive functions take many years to fully develop.”

What do we know?

- Executive functions are skills that help your child to develop:
 - self-control (able to resist temptations);
 - working memory (able to keep information in mind so that it can be used later);
 - cognitive flexibility (able to think creatively and to adjust to new situations).
- Together, executive functions allow your child to plan, reason, pay attention and multi-task. He needs to be able to do these activities to succeed in school and in life.
- These skills are important because they help develop other abilities. For example, they can help your child to understand how other people might be feeling or thinking, or to learn a new skill like math or reading.
- Children with good executive functions have stronger emotional, social and moral skills and tend to be healthier later in life.
- Executive functions take many years to fully develop. However, there are two times in life when they develop quickly: during the preschool years and at the beginning of the teenage years.
- Under the ages of 4 to 5, children’s executive functioning skills are underdeveloped. As a result, most young children find it hard to do things like resist temptations, plan ahead, concentrate, and control their emotions.
- You can help your child to improve his executive functions as early as ages 4 to 5 using simple everyday exercises or games. For example, you can help your child learn to complete simple tasks before enjoying rewards. You can help your child break up large difficult problems into smaller easier problems, and learn to talk himself through difficult tasks. Learning a musical instrument or a second language may also help your child to develop his executive functioning skills.
- Most children need to be supported for executive function skills to blossom, but children with ADHD, autism and behaviour problems especially struggle with tasks involving executive functions.
- The kind of experiences children are exposed to (for example, their interactions with their parents) have a great influence on how they develop their executive functions.
- Children who grow up in stressful environments are more at risk to fall behind in building executive function skills.

Paying attention to...

What can be done?

- ... how your relationship with your child can help develop executive functions.
 - Be aware that if you have a positive relationship with your child, he will be better able to deal with stressful situations. This in turn will help build his executive function skills.
 - Be warm and responsive to your child's needs and demands.
 - Use gentle discipline such as reasoning with your child, politely asking or suggesting when you want him to do or not to do something.
 - Encourage your child to be independent by helping him with activities only as he needs it.
 - Try to keep your home and routines consistent and organized.
- ... the fact that executive function skills develop gradually.
 - Be patient when your young child is being stubborn (e.g., refusing to put on his hat before going out into the cold, eating a cookie when you've told him no).
 - Be realistic about what your child can do at different ages. For example, when your child starts school he won't be able to plan ahead to complete assignments. As he gets older he'll understand why planning homework time is important.
- ... activities that can improve your child's executive functions.
 - Encourage your child to engage in social pretend play with others – especially play where he needs to take on a role and adapt to the “story” as it changes.
 - Look for computer games and cognitive games that help build executive functions.
 - Encourage your child to do yoga, meditation, music, martial arts, dance or aerobics. Be sure the activities are challenging enough to keep your child motivated.
 - Ask your child's preschool teacher or child care practitioner how your child is learning to regulate himself as part of his daily activities (e.g., follow directions, control his impulses).
- ... possible delays or gaps in executive functions.
 - Keeping your child's age in mind, look for underdeveloped executive functions (e.g., trouble paying attention, being impulsive) as these may mean he's having developmental or learning difficulties.



Information

This information sheet is a publication of the Centre of Excellence for Early Childhood Development (CEECD) and the Strategic Knowledge Cluster on Early Child Development (SKC-ECD). These organizations identify and summarize the best scientific work on early childhood development. They disseminate this knowledge to a variety of audiences in formats and languages adapted to their needs.

For a more in-depth understanding of executive functions, consult our synthesis and experts' articles on this topic in the Encyclopedia on Early Childhood Development, available free of charge at www.child-encyclopedia.com.

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In this document, the masculine form is used merely to simplify the text. No discrimination is intended.



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