

What is Interoception?

Most people know that we have five senses that help us understand the world around us – vision, hearing, taste, smell, and touch. But, how do we understand what is happening inside our bodies?

Interoception is another sense that helps us feel what is happening inside our bodies. This includes things like sensing our body temperature, knowing when we have to go to the washroom, and feeling hungry, thirsty, or full.



Why does some people's sense of interoception differ?

Interoception can be experienced differently for each of us. Just like how some people are more sensitive to sounds or less sensitive to smells, some people can't tell if they are hungry or thirsty, and some aren't as good at knowing when they need to use the washroom or put on a sweater. Even though they may feel something uncomfortable in their body, their brain doesn't tell them to do something about it.

Children (and adults) diagnosed with neurodevelopmental disorders (NDDs, like Autism and ADHD) and/or Avoidant/Restrictive Food Intake Disorder (ARFID) often have a different sense of interoception. This is why children with NDDs can have difficulties eating - if their brain doesn't tell them that they are hungry or thirsty, then they won't ask for a snack or a drink.

Differences in interoception can affect anyone at any age or body type, and can put people at risk for growth and nutritional issues, especially if they don't eat a wide variety of foods.

MYTH: My child won't starve themselves. They'll eat eventually!



FACT:

A child with a different sense of interoception may have a hard time noticing when they're hungry, because they may not have a strong hunger "cue". This means that they actually won't eat, even when they should, and this can put them at risk for growth and nutritional issues.

Let's take a second to think about it:

Do you think your child has a hard time knowing when they are hungry? If so, their sense of interoception may be different.



How can I help my child?

You may not be able to rely on hunger cues to help your child meet their nutritional needs. Here are some tips for helping your child:



Be aware of cues other than hunger that indicate your child needs food (like a change in behaviour, mood, or low energy).



Schedule set meals and snacks, rather than letting them graze.



Manage constipation, if this is a concern, as constipation decreases appetite.

This handout is part of the NDD Restrictive Eating Clinic Information Series:
www.hollandbloorview.ca/RestrictiveEatingInfo



References

- Bruton, A. M., Levy, L., Rai, N. K., Colgan, D. D., & Johnstone, M. J. (2025). *Diminished Interoceptive Accuracy in Attention-Deficit/Hyperactivity Disorder: A Systematic Review*. *Psychophysiology*, 62(2), e14750.
- Chen, W. G., Schloesser, D., Arensdorf, A. M., Simmons, J. M., Cui, C., Valentino, R., ... & Langevin, H. M. (2021). *The emerging science of interoception: sensing, integrating, interpreting, and regulating signals within the self*. *Trends in Neurosciences*, 44(1), 3-16.
- Datta, N., & Lock, J. D. (2023). *Exploration of interoceptive capabilities in avoidant/restrictive food intake disorder and anorexia nervosa*. *Journal of Eating Disorders*, 11(1), 189.
- DuBois, D., Ameis, S. H., Lai, M. C., Casanova, M. F., & Desarkar, P. (2016). *Interoception in autism spectrum disorder: A review*. *International Journal of Developmental Neuroscience*, 52, 104-111.
- Fiene, L., & Brownlow, C. (2015). *Investigating interoception and body awareness in adults with and without autism spectrum disorder*. *Autism Research*, 8(6), 709-716.
- Mahler, K. (2017). *Interoception: The Eighth Sensory System*. Kansas: AAPC Publishing.
- Nicholson, T., Williams, D., Carpenter, K., & Kallitsounaki, A. (2019). *Interoception is impaired in children, but not adults, with autism spectrum disorder*. *Journal of Autism and Developmental Disorders*, 49(9), 3625-3637.
- Westwood, H., Mandy, W., & Brewer, R. (2025). *The Relationship Between Interoception, Alexithymia, Autistic Traits and Eating Pathology in Autistic Adults*. *Journal of Autism and Developmental Disorders*, 1-14.