ARTICLE

Iron Improves Brain Function

Did you know that your little one's brain grows to approximately 80%–90% of its adult volume by the age of 2; the brain reaches approximately 95% of its adult volume by the age of 6?[1]

3 mins read

Several micronutrients are required for optimum physical growth and brain development.[2] Out of which, iron is a nutrient that is essential for the development of your child at all stages.[3] Iron requirements are high, particularly during the early stages of life because it is critically important for the production of new red blood cells and muscle cells, as well as brain development.[4]

Benefits of iron in brain development

Toddlers are particularly in need of iron for brain development, as it:[4–8]

- Supports learning abilities, intelligence, attention span, and concentration.[4,5]
- Influences behavioral development and social-emotional growth.[6]
- Influences verbal communication and educational attainment.[7]
- Affects growth and energy levels as well as motor skills like standing, sitting, and walking.[6,8]

Iron-rich foods for brain function

You can easily supplement your child's iron needs through a diet. Food sources that contain iron and help in brain function include:

- Beans and lentils[3]
- Dark green leafy vegetables[3]
- Foods like eggs, fish, cereals, tofu, meat[3]
- Growing-up milk (GUM), specially formulated with nutrients (e.g. vitamins A, C, and D, iron, and calcium)[9]

Additionally, citrus fruits and berries, which are rich in vitamin C, can help your baby absorb iron.

Iron for improved child performance

As iron plays a critical role in establishing brain connections that are required for learning and memory, studies have shown that adequate iron intake during the rapid growth stages supports neurocognitive skills, attentive behavior, and better educational attainment in later life, as compared to toddlers who suffer from iron deficiency.[10]

Deficiency of iron during early childhood can, unfortunately, have long-lasting effects on brain function; hence, make sure that your child is getting adequate iron to meet his demand.

Expert Opinion:

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Brain development is most rapid during pregnancy and early infancy. Thus, during these stages, the maintenance of sufficient iron is required for neurodevelopment. Iron deficiency impacts cognitive development, particularly if it occurs in utero or early infancy. It is advisable to supplement iron both during pregnancy and infancy. Children who are deficient in iron have cognitive difficulties, tend to be irritable, and have pica.

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