

## Neuroscience and Brain Child Development

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The technological advances in neuroscience allowed the scientists to research and develop studies about the human brain, especially in the first six years of child's development. This period is a phase of greater plasticity, which is the ability that the brain has to change in each new experience or learning, through the numerous connections made between the neurons.

As a practical matter, is through the plasticity, that the brain alters in structure and operations, generating in this way, new knowledge and skills to child's life. In the neuroplasticity, the brain is able to modify your physical structure, your chemicals and your function. This occurs through the experiences and stimulus that are responded by the child in your interaction with the environment.

From the birth period, the child's brain is developed in a fast and effective way. This period marks the beginning of the neuropsychomotor development, with the learning of the movements of head, arms, hands, legs and feet. The child becomes able to touch and handle objects, as well as capable in developing speaking skills, through the interactions with the environment.

To the extent that the child interacts and socializes, are integrated into your repertoire of acquisitions, new apprenticeships and achievements.

The first steps brings to the child a universe of curiosities and first discoveries. The movement become an instrument of interaction and socialization for young children that, with the right stimulus (according to the age), has the opportunity to develop your coordination and physical skills. When moving, the child learns about the world and about your necessities, being able to express in each new discovery, your own reactions and feelings.

With 2 years of age, the child gained the ability to move freely with arms and legs, with a growing physical strength. The child is able to socialize with other children and differentiate varied objects, indicating toys and materials of your preference. This is a great opportunity to stimulate physical, manual and social skills, with recreational activities in-group and the handling of small musical instruments. In this age, the child begins to develop self-control, and therefore a great opportunity for parents to teach what is right and what is wrong, in a simple language, with examples of what this child experience in your day. Learn to deal with frustration and developing boundaries with clear explanations are important lessons in this stage of life, when the child learns to play in-group and get along with other children.

The three-year-old bring the development of fine motor skills, which is the ability to use and control the small muscles of the body, such as hold on a pencil to draw, handle stories books, cut or tear a paper, wear or buttoning a shirt. At this stage, parents can stimulate the autonomy and self-care by encouraging the child to organize your personal belongings, and develop hygiene habits with the own body. The child's language gains a growth intensified with the increasing of the vocabulary, and the acquisition of new phrases. For this reason, parents should encourage the child to talk and interact with them and with other children. Activities such as listening and telling stories and singing songs help in the development of oral language.

Between the four and six years old, the child demonstrates interest in plays of make-believe and recreational activities with other children. This is the ideal stage for the apprenticeship of social skills such as empathy, cooperation, trust, solidarity and respect for others. At this stage, the child learns to make decisions and to make choices, such as understanding what foods are best for your health, the importance of respecting and obeying rules, how to develop self-control and manage your own emotions.

The development of numerical skills and language abilities are more intensified during this period. The child is able to reason, solve problems, understand quantities and measures develop hypotheses and argue with examples. Play in groups or with rules are ideal for the development of social skills. Board games, which children needs to count the obstacles in order to reach the finish, are effective strategies to improve mathematical competencies.

As we can see, the child born with a great potential of development and learning, especially during the first six years of life, because of the plasticity that your brain has, resembling a sponge, managing to apprehend a range of information and knowledge.

The key to a healthy child development is in the importance of providing stimulus and learning environments in order that the child can develop and improve your physical, cognitive, social and affective skills. These skills are improved through the practice and reinforced by the experiences through which the child passes, as in day care, pre-school, at home, in the park, in the nature or through the relationships with other children and adults.

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