

AUTISM AND THE BRAIN

Cerebral Cortex

The 30 billion neurons of this part of the brain carry out movement, sensation, planning for the future and social behavior. Altered structure and connectivity **may lead to changes in these activities in individuals with autism**. Detailed microscopic study suggests that there may be an increased number of connections between some of the neurons in this brain region.

Amygdala

The amygdala is the danger detector of the brain and may be responsible for the anxiety that is common in autism. The amygdala is **often too large in young people with autism** but is smaller in autistic adults.

Hippocampus

The hippocampus makes memories. **It is bigger in many people with autism**. This change may be associated with the intensive behavioral therapy that many people with autism experience during early life.

Temporal Lobe

The temporal lobe is important for language, hearing and seeing. One part of the temporal lobe, called the fusiform gyrus, allows people to detect differences in the faces of individuals. Many studies indicate that this part of the brain **has altered neurons and connections**.

Glia

Besides neurons, there are other cells in the brain called glia. These provide support to neurons and also contribute to immune function. Evidence suggests that **some types of glial cells are too active in autism**.

Cerebellum

The cerebellum has 100 billion neurons — the most of any region in the brain! These neurons control detailed movements of the body. About half of the people with autism have **a smaller number of a specific type of cell called Purkinje cells** in the cerebellum.

