

The **human brain** is the center of the human [nervous system](#) and is a highly complex organ. Enclosed in the [cranium](#), it has the same general structure as the brains of other [mammals](#), but is over three times as large as the brain of a typical mammal with an equivalent body size. Most of the expansion comes from the [cerebral cortex](#), a convoluted layer of neural tissue that covers the surface of the forebrain. Especially expanded are the [frontal lobes](#), which are associated with [executive functions](#) such as self-control, planning, reasoning, and abstract thought. The portion of the brain devoted to vision is also greatly enlarged in human beings.

Brain evolution, from the earliest [shrewlike](#) mammals through [primates](#) to [hominids](#), is marked by a steady increase in [encephalization](#), or the ratio of brain to body size. The human brain has been estimated to contain 50–100 billion (10^{11}) [neurons](#), of which about 10 billion (10^{10}) are [cortical pyramidal cells](#). These cells pass signals to each other via as many as 1000 trillion (10^{15}) synaptic connections.

The brain monitors and regulates the body's actions and reactions. It continuously receives sensory information, and rapidly analyzes this data and then responds, controlling bodily actions and functions. The [brainstem](#) controls breathing, heart rate, and other [autonomic](#) processes that are independent of conscious brain functions. The [neocortex](#) is the center of higher-order thinking, learning, and memory. The [cerebellum](#) is responsible for the body's balance, posture, and the coordination of movement.

In spite of the fact that it is protected by the thick bones of the skull, suspended in [cerebrospinal fluid](#), and isolated from the bloodstream by the [blood-brain barrier](#), the delicate nature of the human brain makes it susceptible to many types of damage and disease. The most common forms of

physical damage are [closed head injuries](#) such as a blow to the head, a [stroke](#), or poisoning by a wide variety of chemicals that can act as [neurotoxins](#). Infection of the brain is rare because of the barriers that protect it, but is very serious when it occurs. The human brain is also susceptible to degenerative disorders, such as [Parkinson's disease](#), [multiple sclerosis](#), and [Alzheimer's disease](#). A number of psychiatric conditions, such as [schizophrenia](#) and [depression](#), are widely thought to be caused at least partially by brain dysfunctions, although the nature of such brain anomalies is not well understood.

the human brain is the seat of the human nervous system and is a highly complex organ. Included in the cerebrum, it has the same general structure as the brain of other mammals, but is only a little larger than that of a monkey. The brain is composed of two main parts: the cerebrum and the cerebellum. The cerebrum is the largest part of the brain and is responsible for most of the higher functions of the brain, such as thought, memory, and emotion. The cerebellum is smaller and is located at the back of the head. It is responsible for coordination and balance. The brain is also responsible for the control of the body's internal organs and the regulation of the body's temperature and other functions. The brain is a very complex organ and is the seat of the human mind.

reakshinz . it kintinyisle rāsevz sensāre infāmāeshin , and rapidle anāliziz tis dAtλ and tien responas , kinthrowlēg bodile akshinz and flēgkshinz . tīλ braenstem kinthrowlz brethēg , hAt rāet , and λtīλ artāmatik prōsesiz tīat A indāpendint ov konstis braen flēgkshinz . tīλ neōkartex iz tīλ sentλ ov hīλ arda tīigkeg , lurneg , and memāre . tīλ serābalim iz risponsābōl for tīλ bodez balins , posjλ , and tīλ kōardānāeshin ov muvmint . in spīt ov tīλ fakt tīat it iz prātektid bī tīλ tīik bōnz ov tīλ skal , sāspondid in sārēbrōspīnōl fluid , and Isālaetid from tīλ bladsjrem bī tīλ blād braen bareλ , tīλ dalakit nāechλ ov tīλ hyumin braen māex it sāsseptābōl tu mene tīps ov damij and dizez . tīλ mōst komin fārmz ov fizākōl damij A klōzd hed injārez sλch az aē blō tu tīλ hed , aē sjrōk , or pārezānēg bī aē wīd vārīite ov kemākōlz tīat kan akt az nyurōtoxinz . infekshin ov tīλ braen iz reλ bekōz ov tīλ bareiz tīat prātekt it , bat iz vere sereis wen it ākurz . tīλ hyumin braen iz arlsō sāsseptābōl tu dājenārātiv disardiz , sλch az pAkīnsinz dizez , molt āpōl sklirōsis , and alsīmiz dizez . aē nāmbλ ov sīkeachrik kāndishinz , sλch az skīasāfreneλ and dāpreshin , A wīdle tīart tu be kōzdz at lest pAshāle bī braen disflēgkshinz , arlīō tīλ nāechλ ov sλch braen ānomālez iz not wal āndāstōd .