



Brain Facts

Decide whether each of the following statements is true or false.

- _____ At birth all of baby's internal organs; the heart, lungs, kidneys and brain are almost completely developed.
- _____ A newborn a few minutes old is capable of recognizing his father's voice.
- _____ By the time of birth, a human brain has *one billion nerve cells* ready to get connected.
- _____ Relationships during the first 3 years of life can change the size and structure of the brain.
- _____ A baby's language development benefits from being around television and adults talking to each other.
- _____ Parts of the brain that are not frequently stimulated during infancy and early childhood actually get thrown away.
- _____ Nurturing and abusive touch change the chemistry of the brain and body.
- _____ We are not affected much by experiences we had as babies because we didn't have language yet and we can't remember things that happened before we could talk.
- _____ Poor early experiences can cause a child with a normal brain to become mentally retarded, or an easy going child to develop serious emotional and behavior problems.
- _____ We can fix any damage done before the age of 5 with love and attention.



Brain Facts

- At birth all of baby's internal organs; the heart, lungs, kidneys and brain are almost completely developed.
False: The heart, lungs and kidneys are developed but the brain and nervous system are very immature. Between birth and 3 years of age, the brain reaches 90% of its adult size and complexity.
- A newborn a few minutes old is capable of recognizing his father's voice.
True: The baby can hear quite well in utero. A newborn a few minutes old will recognize the father's voice if he has been present and talking to the mother and baby during pregnancy.
- By the time of birth, a human brain has *1 billion nerve cells* ready to get connected.
False: It does not have 1 billion cells. It has 100 billion cells ready to get connected.
- Relationships during the first 3 years of life can change the size and structure of the brain.
True: Healthy brain connections are completely dependent on healthy human connections. There is no substitute. Babies without adequate human contact lose brain matter.
- A baby's language development benefits from being around television and adults talking to each other.
False: Studies show that the only way to help a baby learn language is for people to talk directly to the baby, early and often.
- Parts of the brain that are not frequently stimulated during infancy and early childhood actually get thrown away.
True: The brain is very efficient. After awhile certain parts are not being used and they are discarded. Opportunities for acquiring important skills can be lost forever.
- Nurturing and abusive touch change the chemistry of the brain and body.
True: Touch is the first and perhaps most important sense. Touch triggers the release of many chemicals in the brain. Nurturing touch and massage releases chemicals that calm the body and brain.
- We are not affected much by experiences we had as babies because we didn't have language yet and we can't remember things that happened before we could talk.
False: Scientists are discovering that brain cells tend to "remember" our strong emotional reactions to events in early childhood. These cells can be triggered by similar events in the present, causing us to feel or act as we did then.
- Poor early experiences can cause a child with a normal brain to become mentally retarded, or an easy going child to develop serious emotional and behavior problems.
True: Poor early experiences can cost a child up to 25% of the brainpower he was born with.
- We can fix any damage done before the age of 5 with love and attention.
False: It is hard to undo the damage to the brains of babies exposed in the womb to drugs, alcohol, or malnutrition, or damage caused by neglect and abuse.