

Brain Facts

- Humans are the only species born without fully developed brains. All of our other organs are fully developed, just small. Not the human brain.
- The brain doesn't fully mature until we are in our early twenties, but most of the growth happens between birth and age ten.
- The brain is flexible throughout life, but is the most capable of change during the early years.
- A baby is born with 100 billion neurons in its brain. That is as many as there are stars in the sky, but like the stars, the neurons are not connected.
- Brain growth is really about growing the connections between neurons.
- How neurons get connected, which ones with which ones, and how strong those connections are, has to do with our experiences.
- Connections are made both by repetition and when there is a strong emotion connected to the experience.
- The brain is shaped by a combination of biology (genes) and experiences.
- Experiences shape the structure of our brains.
- Relationships form and moderate our experiences.
- By the age of three we have 1000 trillion established connections between our neurons—twice as many as we need. This protects us from brain injuries.
- Also by age three, the connections that are the weakest start to get pruned back. The strongest connections—those associated with emotion and repetition—remain.