When it comes to human brain, size isn't everything

At three pounds, the human brain is gigantic relative to our body size. Our closest living relatives, chimpanzees, have brains that are only a third as big. Scientists have long suspected that the size of the brain directly correlates to intelligence. But new research shows that size isn't everything.

In a <u>new paper</u>, Harvard neuroscientists Randy L. Buckner and Fenna M. Krienen offer a powerful yet simple explanation about how the human brain evolved to be so powerful. In our smaller-brained ancestors, the researchers argue, neurons were tightly tethered in a relatively simple pattern of connections. When our ancestors' brains expanded, those tethers ripped apart, enabling our neurons to form new circuits, leading to increasingly intelligent behavior, such as using stone tools and making cave paintings.

Dr. Buckner and Dr. Krienen call their idea the tether hypothesis. Their paper appears in the December issue of the journal *Trends in Cognitive Sciences*.

Read the full, original story: In the Human Brain, Size Really Isn't Everything

Additional Resources:

- The most detailed map of the human brain ever, New Scientist
- A virus hitched a ride in our ancestors genome, and changed human brains forever, National Geographic
- Genetic engineering may help in mapping the human brain, Genetic Literacy Project