In Brief: Human evolution and big babies

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Ancient human ancestors (hominids) may have birthed larger babies and developed intense and shared styles of infant care--characteristics that distinguish humans from the great apes -- prior to the evolution of the human genus Homo, a study finds. The study is being published this week in the *Proceedings of the National Academy of Sciences*.

Jeremy DeSilva used information from a national primate research center, museum specimens, and previous studies to test the common assertion that human babies weigh proportionally more than ape infants, and to determine when in human evolution the shift toward larger babies occurred.

DeSilva found that human infants weigh approximately 6% of the mother's body mass, while chimpanzee neonates weigh closer to 3% of the mother's mass.

Because larger infants are more difficult to birth and heavier to tote around, some researchers have argued that human child-rearing characteristics such as involved infant care from fathers and other family members, may have emerged in parallel with the technological adaptations of Homo erectus.

However, DeSilva suggests that while the earliest hominids demonstrate infant-to-mother weight ratios similar to today's apes, females of the genus Australopithecus, a now-extinct hominid group that evolved approximately four million years ago, may have birthed babies larger than 5% of their body mass.

The study suggests, according to DeSilva, that shared parenting may have begun earlier in human evolution than researchers previously believed.

More information: "A shift toward birthing relatively large infants early in human evolution," by Jeremy DeSilva et al., *Proceedings of the National Academy of Sciences*, January 2010.

Provided by Proceedings of the National Academy of Sciences