

# Having brothers delays sexual maturation in women

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(PhysOrg.com) -- Scientists in Perth, Western Australia, investigating the costs of brothers and sisters in contemporary Australian society, have discovered that girls with older brothers tend to start menstruation later, and girls with younger brothers have their first sexual experiences later.

The researchers, behavioral ecologists Dr. Debra S. Judge and Fritha H. Milne, from the University of Western Australia's School of Anatomy and Human Biology, found that having brothers made no difference to fitness factors such as the number of pregnancies, or the age of the first pregnancy or the first birth. This suggests the negative effect of brothers on [sexual maturity](#) and activity is not associated with a fitness cost.

[Anthropologists](#) have known for some time that in "traditional" societies siblings in families with more sons tend to have fewer offspring, and Dr. Judge said this was thought to be because boys tended to require more resources than girls, leaving less for further children. She and Milne decided to investigate adults in a contemporary Western culture to see if the same effect was present.

They studied 197 adult women and 76 men aged 18-75, giving each participant a questionnaire about their siblings, the onset of the menarche (menstruation), and their age at their first [sexual activity](#). The questionnaire also asked questions about the number and age of their children and their age when their first child was born.

The results were that girls with older brothers (but no older [sisters](#))

started their periods at a mean age of 13.6 years, while those with both older brothers and older sisters began the menarche at 13.3. Girls with no older brothers (with or without older sisters) started at 12.7 years of age. The more older brothers the girl had, the older she was when she started her periods.

The age of the older brother(s) did not affect the results, which Dr. Judge said discounts any "father figure" effect. (Earlier research had found girls with an absent father tend to reach menarche earlier, which had been attributed to stress.)

The study also found that girls with one or more younger brothers experienced their first sexual activity up to two years later than girls without younger brothers. The number of boys in the family did not affect how many children their [siblings](#) went on to have or when they gave birth to their first child.

The findings lead to more questions than answers. Dr. Judge said the later onset of menarche could be related to hormonal differences or girls being treated differently if they have an older brother, or a psychosocial process of some sort. The later start in sexual activity when girls have younger brothers could be because older girls spend more time babysitting and helping with domestic chores, leaving less opportunity and time for sexual experiences.

These results were not expected in a society where there are plenty of resources available and where adults tend to live independently of their parents for some time before starting a family. This latter fact may help explain why having [brothers](#) had no effect on the age of first pregnancy, first birth, and the number of children. Judge said she preferred not to speculate too much as the study was very basic and straightforward, and she emphasized the delays should not necessarily be seen as negative anyway.

The paper was published in the *Proceedings of the Royal Society B* on August 18.

**More information:** Brothers delay menarche and the onset of sexual activity in their sisters, *Proceedings of the Royal Society B*, Published online before print August 18, 2010, [doi:10.1098/rspb.2010.1377](https://doi.org/10.1098/rspb.2010.1377)

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