# Risk-taking gene drives the urge to lose your virginity

**Chris Smyth, Health Editor**

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Genetic differences that influence the timing of puberty and our appetite for risky behaviour appear to be linked to the age of first sexual intercourseSCIENCE PHOTO LIBRARY/CORBIS

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For years we have thought that loss of virginity was determined by nothing more complex than how much alcohol could be smuggled into the school disco. But scientists now say that the timing of our first sexual encounter is partly caused by our genes.

Genetic differences that influence the timing of puberty and our appetite for risky behaviour appear to be linked to the age of first sexual intercourse, a study of 380,000 people suggests.

Cambridge University scientists estimate that about a quarter of the difference in age when people first have sex could be explained by genetic variation. They analysed data on 125,000 British people, identifying 38 genetic variants that were linked to the age at which they first had sex.

Some of these genes had previously been implicated in the development of the brain and susceptibility to schizophrenia. The findings were then compared with 260,000 people in Iceland and the US, they report in the journal *Nature Genetics*.

John Perry, a senior investigator at the Medical Research Council epidemiology unit at Cambridge and a lead author of the research, said: “While social and cultural factors are clearly relevant, we show that age at first sexual intercourse is also influenced by genes which act on the timing of childhood physical maturity, and by genes which contribute to our natural differences in personality types.

“One example is a genetic variant in CADM2, a gene that controls brain cell connections and brain activity, which we found was associated with a greater likelihood of having a risk-taking personality, and with an earlier age at first sexual intercourse and higher lifetime number of children.”

Researchers hope that understanding teenagers’ decisions could result in better targeting of safe-sex messages.

Ken Ong, a paediatrician and co-author of the paper, added: “We have already shown that early puberty and rapid childhood growth adversely affect disease risks in later life. We have now shown that the same factors can have a negative effect at a much younger age, including earlier intercourse and poorer education attainment.”