

Genetics may contribute to when we lose our virginity, but other factors still dominate

Sex is a big deal, particularly for most American teenagers' lives.

The decision to have it or wait often dominates a person's adolescence and can define a teen amongst their peers. Many factors determine when a teen has sex for the first time—culture, upbringing, religion—and there is, to be sure, a biological component.

Researchers have long found that going through puberty earlier makes a person more likely to start having sex at an earlier age compared to peers. Now, a new study points to the [genetics in play](#) that make some teenagers early adopters and some adults late to the party.

A team of researchers at the University of Cambridge used a genome wide association study to look for candidate genes related to the age a person first has sex and age women give birth. They then checked their work on an even larger set of genomes to see if the effects remained. They found that genes related to sexual maturity (majorly) and psychological development (minorly) could account for nearly a quarter of the variation in the age people lost their virginity. Andrew Joseph writes at [STAT](#):

John Perry, a University of Cambridge geneticist and a senior author on a paper published Monday in *Nature Genetics*, said DNA plays more of a role than people assume. If some people have sex at 15 years old and others wait until 20, genetics account for 25 percent of that difference, Perry said.

The strongest relationships were between age at first sex, earlier puberty and BMI. Height, however, had the opposite relationship. People with genes that were likely to make them taller also had sex later. Redheads and freckled women, but not men, also lost their virginity a little later based on this genetic model.

Several of the 38 gene loci the study identified were found in or near genes that are implicated in brain development and susceptibility to schizophrenia and bipolar disorder. Two of those *CADM2* and *MSRA* were found to be more common in people who might be more impulsive or more likely to take risks than most. They're also linked to cognitive impairment and schizophrenia. The authors said these genes could be a behavioral genetic component to losing one's virginity because they might increase risk taking behavior in people who don't have the mental disorders they're associated with. But these genes are really complicated to understand. There are more than [100 genes](#) implicated in schizophrenia, for example.

Before this study, researchers had largely focused on the social and culture factors that lead to early sex. Even though genetics can potentially explain only about one quarter of the variability in age when we lose our virginites, this data could be useful from a public health perspective. Some people who will start having sex early might not fit into established social and cultural groups known to be at risk. Perhaps building on our understanding of genetics might catch targeted populations for education and prevention

efforts the study authors said.

The results also show that public health experts might be looking at the negative effects of early sex with the wrong causality. Researchers have long known that early sex is related to dropping out of school and developing depression or type 2 diabetes later in life. But these findings show that isn't necessarily the case. It may be through these same genes that these connections come up, not just from having sex young. From [STAT](#):

Researchers, for instance, have reported that people who lose their virginity earlier in life are more likely to have future psychological problems such as depression, and “many studies have been very quick to conclude that what’s happening is the sexual relationship is damaging or risky for teenagers in some way,” Harden said. But other studies, she said, have found that depression and a predisposition to having sex earlier could have common genetic roots.

But other scientists urged the media not to overhype the findings. Social, cultural and other factors still account for 75 percent of the variation of which teens have sex early and who waits. Those reasons are more important, and should still get more funding for education and pregnancy and sexually transmitted disease prevention. And, as [the Verge](#) points out, no matter what the situation, biology is not destiny:

[Mary Hediger, an adolescence expert] warns against studies that point to genetic factors influencing sexual behavior. Though genes are undoubtedly important, when it comes to losing your virginity and becoming pregnant, the social, economic, and cultural factors can't be overlooked. “The kind of biological determinism makes me a bit uncomfortable,” Hediger says. “It sort of gives you the impression — and a lot of these genetics studies sort of do that — that you're more your biology than you are a product of your environment. You don't want to give the impression that you're doomed, your biology dooms you.”

It's also worthy to look at other ethnic groups and different cultures to repeat this study. First of all, all three data sets the authors used were of Europeans. These genes might not be as strongly involved in people of other ethnicities. They might also differ depending on the cultures of the test subjects. Sex is front-and-center in America and the UK, even when you're browsing bathroom fixtures and [faucets](#). Other countries have different attitudes. Maybe those differing attitudes would make age at first sex more or less reliant on genetics. It's definitely a curious idea.

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