

# Why not marry your cousin? Millions do

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The health risks of marrying a cousin have been grossly overstated, says a new book.

A better understanding of the health effects of cousin marriage could mean more appropriate marriage laws and better medical care for cousin couples and their children.

In 'Consanguinity in Context,' author and medical geneticist Alan H. Bittles of Murdoch University in Australia examines common misconceptions about cousin marriage from legal, cultural, religious and medical perspectives.

Marriage between cousins is taboo in much of the Western world. In the United States, 31 of 50 states outlaw marriage between first cousins, or allow it only under certain circumstances.

Although cousin marriage is banned in much of the US, the practice is tolerated and even encouraged in other parts of the world. In South Asia and the Middle East, for example, 20-50% of marriages are between first cousins or even closer relatives. They're in good company. More than 10% of people worldwide are married to a second cousin or closer, or have parents who are cousins.

[Charles Darwin](#) and his wife Emma were first cousins. Darwin's grandparents were cousins too.

Cultures where cousin marriage is common point to its social and

economic benefits, such as strengthening family ties and keeping wealth in the family.

Opponents argue that first cousin marriage increases the risk of passing on [genetic abnormalities](#). But for Bittles, 35 years of research on the health effects of cousin marriage have led him to believe that the risks of marrying a cousin have been greatly exaggerated.

There's no doubt that children whose parents are close biological relatives are at a greater average risk of inheriting genetic disorders, Bittles writes. Studies of cousin marriages worldwide suggest that the risks of illness and early death are three to four percent higher than in the rest of the population.

But the risks apply primarily to couples who are carriers of disorders that are normally very, very rare, Bittles explained. "For over 90% of cousin marriages, their risk [of having a child with a genetic abnormality] is the same as it is for the general population," he said.

What's more, many studies of the effects of cousin marriage fail to account for the influence of non-genetic factors on infant health, such as socioeconomic status, maternal diet during pregnancy, and infections. "Many of the data are exceedingly poor," Bittles said.

Some degree of inbreeding has been the norm for much of human history.

Scientists estimate that the first people to migrate out of Africa numbered 700 to 10,000 breeding-aged individuals. Given those small numbers, and the fact that these people likely dispersed in small hunter-gatherer groups and often married within their clan or tribe, "it seems inevitable that some level of close kin mating would have occurred," Bittles writes.

"If you marry within your community, there's not a lot of people to choose from," he added.

Bittles is now studying the effects of kin mating in early humans and the genetic consequences for people living today at the U. S. National Evolutionary Synthesis Center in Durham, North Carolina.

One surprising and oft-neglected advantage of marriage between close biological relatives is a phenomenon called purging, in which disease genes are exposed and removed from the gene pool.

Thanks to purging, marriage between close relatives in early human populations would have kept the prevalence of genetic disorders low, Bittles explained.

Today, cousin marriage is on the rise in regions with a large influx of immigrants from areas where the practice is more common, such as North Africa, the Middle East, and Central and Southern Asia.

But in the long-term, shrinking family sizes and increased mobility in many parts of the world means that cousin marriage is likely to decline. In the absence of purging, harmful genetic variants could accumulate over time.

"We may be creating a problem for ourselves in future generations," Bittles said.

**More information:** The book will be published by Cambridge University Press on May 7, 2012.

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