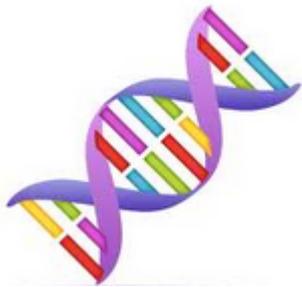


# DNA testing not ready for prime time

By ACSH Staff — December 31, 2013



In today's *New York Times*, 28-year old graduate student Kira

Peikoff [describes](#) <sup>[1]</sup> her attempt to determine her risk of several diseases by having her genome analyzed by different companies. Although she is healthy, she was concerned about diseases such as coronary heart disease, rheumatoid arthritis, Alzheimer's and breast cancer, since these all run in her family.

So she found 3 companies that said they would get the information from samples of either her saliva or blood, for fees ranging from \$99 to \$399. The companies promised to report on anywhere from 24 to 240 health conditions and traits. After about 2 months, the results came in.

Surprisingly, there were striking differences in the results reported by the companies. For example, one informed Ms Peikoff that her most elevated risks were for psoriasis and rheumatoid arthritis; while a second company told her that her lowest risks were for the same two diseases. These two companies agreed that her risk of coronary heart disease was about average, but the third one found her odds were above average .

Delving into the more technical aspects of her tests, Ms. Peikoff learned that the different companies used somewhat different technologies to establish her risk profiles. The companies themselves, she discovered, choose which methodologies to use, and there are no rules about which testing variants are most accurate for detecting risks of various diseases.

Even when the companies did use the same tests, which they did for rheumatoid arthritis, their interpretations weren't necessarily the same. Further, their estimation of average risks differed. She explains that experts say that only 5 to 20 percent of the risk of various diseases can be attributed to genes: environment plays varying roles.

What can we learn from Ms Peikoff s experience? Probably just that while DNA testing is possible, in many cases it may take more than knowledge of genes to determine risk. As Dr. Arthur L. Caplan, director of medical ethics at the New York University Langone Medical Center and ACSH advisor commented for the article: These tests may be interesting as a kind of entertainment, but do not take them seriously yet in driving your health care or your lifestyle. If you want to spend money wisely to protect your health and you have a few hundred dollars, buy a scale, stand on it, and act accordingly.

ACSH s Dr. Elizabeth Whelan added We couldn t agree more.

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[1] <http://www.nytimes.com/2013/12/31/science/i-had-my-dna-picture-taken-with-varying-results.html?ref=science>