

Study: Consumers not fazed by DNA health results

January 12 2011, By MALCOLM RITTER , AP Science Writer

Consumers who get their DNA tested for health risks take the results in stride, says the first major study of how people react to commercial genetic testing.

But getting that assessment for a bunch of diseases didn't inspire customers to eat better or exercise more, the researchers found.

Companies have offered "direct-to-consumer" [genetic testing](#) for several years, taking saliva samples from customers, analyzing the DNA and delivering a risk report for a series of diseases.

Critics say the results can be inaccurate, that DNA currently tells too little about an individual's disease risk to be useful, and that the information might make people unduly anxious.

The new study surveyed the reactions of about 2,000 customers about five months after they got the test results. It didn't assess the accuracy of the commercial test used.

The DNA test covered 22 conditions including Alzheimer's disease, diabetes, glaucoma, obesity and lung, breast and prostate cancers.

Participants showed no sign of significant anxiety from the results, which senior author Dr. Eric Topol found "very reassuring." The paper was published online Wednesday by the [New England Journal of Medicine](#).

"We don't give consumers enough credit for the fact they can handle this type of information load about themselves," said Topol, director of the Scripps Translational Science Institute in La Jolla, Calif.

But neither did they cut down on fat in their diets - a common recommendation for several of the conditions tested for - or boost their exercise.

"That was very disappointing," Topol said. "Our conclusion is it's very hard to change behavior."

That might change in the future, when more DNA research will allow companies to identify people at sharply higher risk than they can indicate now, he said.

Researchers also asked the participants about getting follow-up [medical tests](#) for conditions highlighted by their DNA reports. Overall, there was no statistically meaningful indication that the DNA results had made participants get medical tests. But Topol said there was a hint of such an effect, most clearly for glaucoma and prostate cancer.

Only about half the participants said they'd seek medical testing in the future because of their DNA results. But the results indicated that being found at risk for some illnesses, including colon and breast cancer, encouraged people to say they wanted to get tested for them someday.

Topol called that result striking, although he noted, "We just don't know whether they're going to go through with it."

The study was financed by the federal government and by Scripps Health, a private health care organization. Because of stipends provided by the researchers, study participants on average paid less \$250 for the Navigenics Inc., test, which cost \$2,500.

Experts unconnected with the work praised the study.

"They've made an important contribution here," said Dr. Robert C. Green of Boston University, who studies how people react to their genetic risks.

Green said the new work addresses some contentious questions about DNA testing. It shows that on average there was no increase in anxiety, for example, and no costly, mass stampede to get medical testing by people with only a modest increase in disease risk.

While it doesn't rule out the idea that DNA tests can motivate people to change their lifestyle, it provides important data on that as well, he said.

The researchers said the sample doesn't reflect the general population, but rather those who order DNA tests from companies. They are likely to have higher levels of education and socio-economic standing than the general population and be focused on improving their health, Green said.

Dr. Muin Khoury, director of the Office of Public Health Genomics at the federal Centers for Disease Control and Prevention, said the work is "the first of many, many studies to come. It's the kind of study you need to do. I'm glad they did it."

More information: <http://www.nejm.org>

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