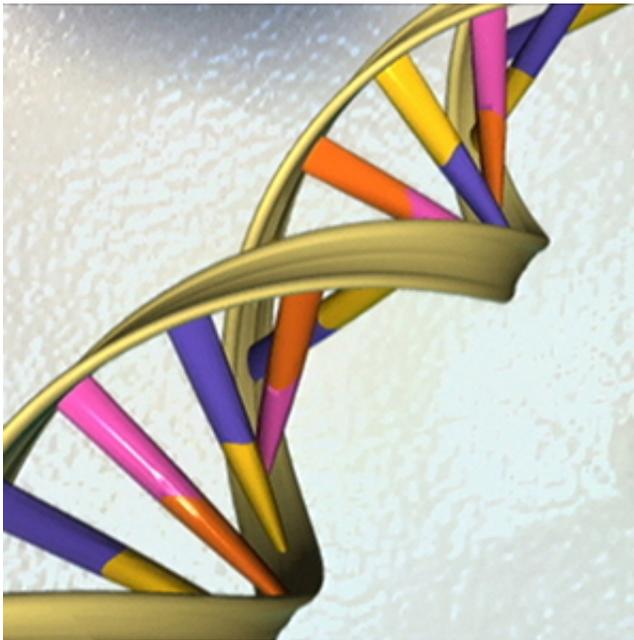


Most respond well to genetic testing results, according to study

October 22 2014, by Jim Dryden



There have been debates about how people may react when learning they may be at risk for diseases, but Washington University researchers found that most people were glad to receive genetic testing results. Credit: National Human Genome Research Institute

(Medical Xpress)—People at high risk for psychological distress respond positively to receiving results of personalized genetic testing, according to new research at Washington University School of Medicine in St. Louis.

More than 60 percent of [subjects](#) in the genetic study wanted information about their test results, which detailed the risks for lung, prostate and colorectal cancers, type 2 diabetes and [heart attack](#). And 95 percent said they appreciated receiving the information, regardless of whether the results were good or bad news.

The findings, published online in the journal *Genetics in Medicine*, are somewhat surprising because most subjects were considered part of a vulnerable population. They had a higher than normal risk for depression, and about half were unemployed with no health insurance.

"There have been big ethical debates about whether people would want to know they were at risk for deadly diseases such as Huntington's disease," said first author Sarah M. Hartz, MD, PhD. "But most of medicine doesn't work that way. If you get an X-ray for a lingering cough, and the radiologist finds a mass in your lung, no one asks beforehand if you want to know whether you have [lung cancer](#)."

Hartz, an assistant professor of psychiatry, said that as genome sequencing technology has become less expensive and more commonly available, it's now possible to find additional information unrelated to the diseases researchers set out to investigate.

The new study involved 82 smokers who provided DNA samples. The researchers' main goal was to look at genetic factors related to lung cancer and nicotine dependence, but they received the subjects' consent to evaluate the genetic risks of heart attack, type 2 diabetes, and colorectal and prostate cancer.

The study subjects were considered to be a high-risk population. Sixty-four percent were African-American, which for men raises the risk of [prostate cancer](#). In addition, almost two-thirds were at risk for depression based on evaluations before the start of the study. Another one-third of the subjects had higher than normal levels of anxiety. Only

46 percent were employed, and 45 percent had no health insurance.

"Many studies that evaluate the return of [genetic testing](#) results have looked exclusively at highly educated Caucasians," Hartz said. "These studies also focused on people with [health insurance](#) who are considered to be well-off financially. They do well when they receive genetic testing results, but we didn't know if that also would be true for people who don't have those advantages."

The researchers found that even individuals who received reports indicating they were at increased risk for diseases did not experience upticks in depression or anxiety.

Some researchers also had worried that study participants might be tempted to "throw in the towel" and not try to adopt healthier behaviors if they received bad genetic news, but Hartz and her colleagues didn't find that. Instead, after receiving DNA results, many subjects took concrete actions to change their behaviors.

When the researchers followed up four to eight weeks after subjects had received genetic testing results, they found that participants were likely to have attempted to quit smoking. Among those who learned that their genetic makeup put them at increased risk for lung cancer, those attempting to quit rose from 14 to 57 percent.

"Genetic counselors recommended that the best thing smokers could do for their health was to quit smoking," Hartz explained. "We also gave them some resources to help them quit, and it turned out that many tried to do just that."

More information: "Return of individual genetic results in a high-risk sample: enthusiasm and positive behavioral change." *Genetics in Medicine*, advance online publication. [DOI: 10.1038/gim.2014.110](https://doi.org/10.1038/gim.2014.110)

Provided by Washington University School of Medicine in St. Louis

Citation: Most respond well to genetic testing results, according to study (2014, October 22)
retrieved 31 March 2023 from <https://medicalxpress.com/news/2014-10-genetic-results.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.