



Greetings!

Thought you might be interested in a recent NYT article describing the impact of genomic information on the life insurance industry, as well as a newly published paper on changes in diet and exercise following direct-to-consumer genetic testing. I also want to invite you to [support our staff](#) in their 10K run for G2P research.

Read on for more!

Thanks,

Robert C. Green, MD, MPH

New Gene Tests Pose a Threat to Insurers

You know you have a genetic risk for Alzheimer's disease. Do you share this information when shopping for life insurance? That's the theme of this recent New York Times [article](#).



Nelson et al. BMC Medical Genomics (2018) 19:108
DOI 10.1186/s12858-017-0281-1

BMC Medical Genomics

RESEARCH ARTICLE Open Access

Diet and exercise changes following direct-to-consumer personal genomic testing

Dava Elena Nielsen^{1,2*}, Deanna Alexis Carey^{1,2}, Catharine Wang^{1,2}, J Scott Roberts^{1,2}, Robert C Green^{1,2,3*}, for the PGM Study Group

Abstract
Background: The impacts of direct-to-consumer personal genomic testing (PGT) on health behaviors such as diet and exercise are poorly understood. Our investigation aimed to evaluate diet and exercise changes following PGT and to determine if changes were associated with genetic test results obtained from PGT.
Methods: Customers of 23andMe and Pathway Genomics completed a web-based survey prior to receiving PGT results (baseline) and 6 months post-results. Fruit and vegetable intake (beverage), and light, vigorous and strength exercise frequency (days/week) were assessed. Changes in diet and exercise were examined using paired t-tests and linear regressions. Additional analyses examined whether outcomes differed by baseline self-reported health (SPH) or content of PGT results.
Results: Longitudinal data were available for 1000 participants. Significant increases were observed for vegetable intake (mean $\Delta = 0.11$, 95% CI = 0.05, 0.17, $p = 0.0003$) and strength exercise ($\Delta = 0.14$, 95% CI = 0.05, 0.25, $p = 0.0153$). When stratified by SPH, significant increases were observed for all outcomes among lower SPH participants: fruit intake, $\Delta = 0.11$ (95% CI = 0.0148, 0.205), vegetable intake, $\Delta = 0.18$ (95% CI = 0.0065, 0.35), light exercise, $\Delta = 0.25$ (95% CI = 0.0303, 0.47), vigorous exercise, $\Delta = 0.23$ (95% CI = 0.0207, 0.43), strength exercise, $\Delta = 0.19$ (95% CI = 0.07, 0.31), $p < 0.0001$. A significant change among higher SPH participants was only observed for light exercise, and in the opposite direction ($\Delta = -0.1668$ (95% CI = -0.34, -0.0111). Genetic results were not consistently associated with any diet or exercise changes.
Conclusions: The experience of PGT was associated with modest, mostly positive changes in diet and exercise. Associations were independent of genetic test results from PGT.
Keywords: Direct-to-consumer, Genetic testing, Health behavior, Diet, Exercise

DTC Genetic Testing and Changes to Diet and Exercise

One of our newest publications, [Diet and Exercise Changes Following Direct-to-Consumer Personal Genomic Testing](#), shows that DTC testing consumers reported improvement in diet and exercise.

Please Support Our G2P 10K Runners!

Members of our researchteam are filling up their water bottles and lacing up their shoes inpreparation for the June Boston Athletic Association 10K Road Race, in which theyare raising money to directly support our genomics research efforts.

Please make a [tax-deductible donation](#) today and help us pursue groundbreaking research pushing the boundaries of genomic medicine!



[Donate Here](#)