

Ethical Issues of Predictive Genetic Testing for Diabetes

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Abstract

With the rising number of individuals affected with diabetes and the significant health care costs of treatment, the emphasis on prevention is key to controlling the health burden of this disease. Several genetic and genomic studies have identified genetic variants associated with increased risk to diabetes. As a result, commercial testing is available to predict an individual's genetic risk. Although the clinical benefits of testing have not yet been demonstrated, it is worth considering some of the ethical implications of testing for this common chronic disease. In this article, I discuss several issues that should be considered during the translation of predictive testing for diabetes, including familial implications, improvement of risk communication, implications for behavioral change and health outcomes, the Genetic Information Nondiscrimination Act, direct-to-consumer testing, and appropriate age of testing.

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Abbreviations: (ASHG) American Society of Human Genetics, (GINA) Genetic Information Nondiscrimination Act, (SNP) single nucleotide polymorphism, (T2DM) type 2 diabetes mellitus, (*TCF7L2*) transcription factor 7-like 2

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