

On nutrition: Eating for your genes

May 27 2022, by Barbara Intermill



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In response to a recent column where I mentioned how genetic research is beginning to show us how our DNA may influence our dietary needs, reader Ann F sent me a slew of questions:

"Could race, [hair color](#), eye color, ancestry help you choose the best diet? What about your gender? If you do have DNA information, how much would you be able to learn about your optimal nutrition?"

And I wonder if [food preferences](#) are DNA-related, in some way. I try to have a [healthy diet](#), but if I learned that I'd be better off with peanut butter sandwiches and not much else, day in, day out, that would sound great to me. (If I remember correctly, you might feel much that way about some New Mexico specialties.) Thanks."

Dear Ann,

Pretty much everything about you—including your susceptibility to some diseases—is determined by what you inherited from your parents. Even your preference for peanut butter sandwiches, and mine for New Mexican food, are at least partially influenced by our genetics, researchers say.

And yes, because [males](#) and females have differing body types and functions, our nutritional needs do vary. Men generally require more protein and [women of childbearing age](#) need more iron, for example.

There are two areas of study on this topic. One is called nutrigenomics, which looks at how diet affects the "expression" of our individual genetic code. For example, my dad developed Type 2 diabetes late in his life. Since we know the condition is linked to [family history](#), there's a good chance I inherited a tendency for diabetes as well.

What is fascinating, say scientists, is my lifestyle, including how I eat, can influence if that gene may turn on to diabetes or stay off. (So far, it's off.)

On the flip side is an emerging field of research called nutrigenetics, which delves into how one's individual genetic code affects how we respond to certain components in food. These discoveries have spawned personalized nutrition programs based on DNA results.

And while there are companies that will map your [nutritional needs](#) based on your genetics, please note this area of nutrition is still in its infancy and not standardized by any means.

That said, I was offered to submit my saliva for evaluation by Genopalate, one such company with a great resume of nutrition professionals and researchers. And I must say I was intrigued with the results.

Among other details, my report found that my "genotype" is best suited to a diet high in carbohydrate foods and a moderate intake of dietary fiber. I also need a high normal amount of zinc, vitamin D and omega-3 fats in my diet. And apparently my body breaks down caffeine fast but alcohol slow—a reminder that "genetics loads the gun, but lifestyle pulls the trigger."

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