

Know your genes to plan your diet

Are you likely to succeed or fail on a ketogenic diet? When it comes to losing weight, is exercise more effective than food choices? Your genes may hold the answer to these questions.



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CHENNAI: Are you likely to succeed or fail on a ketogenic diet? When it comes to losing weight, is exercise more effective than food choices? Your genes may hold the answer to these questions. The genetic analysis contributes to a growing area of nutritional medicine that offers personalised diet plans based on nutrigenomics to help people make more informed decisions about their lifestyle habits and health.



What is nutrigenomics?

Nutrigenomics is the study of how genes and diet (nutrients) interact. Gene variants (genetic differences) predict how an individual's body will respond to certain nutrients. For example, variants in FTO gene directly impact your metabolism, energy expenditure, and energy balance, as well as weight management. FTO gene variants determine how your body will metabolise carbohydrates, fats and proteins. Using that knowledge beforehand, you can choose a diet plan that works well as per your genetics with the guidance of a dietitian. Nutrigenomic test results help us make our daily dietary decisions in a better way. For example, your genetic variant may indicate that you are more likely to:

Develop high blood pressure or cholesterol: By knowing this, you can prevent these conditions from occurring. You can, for example, reduce your sodium and saturated fat intake.

Crave sweets: Make a game plan to control your cravings and avoid eating too much. You might be able to prevent Type 2 diabetes by following these results.

Get jitters when you drink caffeine: You now know why you feel shaky after drinking caffeine. You may feel inspired to ignore it for good.

Lose weight on a high-protein diet: Knowing how your body reacts to macronutrients like protein, fat, and carbohydrates will give you the confidence to follow a personalised diet plan.

Burn more fat with strength training or cardio: Focus on the most efficient fat-burning system for faster results.

How does nutrigenomic testing work?

The DNA test for nutrigenomics is performed by swabbing the inside of your mouth or with your saliva. These are sent to a lab for analysis, and you receive the results a few weeks later. There are 70 or more genes that can be analysed at one go.

How can nutrigenomics impact your diet?

Nutrigenomics allows you to determine what parts of your diet impact your health and can reduce disease risks. An example is high blood pressure. It's one thing to know if it runs in your family, but it's another to see a strong genetic sign. Even if you have the variant, it doesn't mean it's inevitable. That's where nutrigenomics can be empowering. With the help of a dietitian, you can develop an actionable plan such as lowering sodium to live a healthier life.

Is nutrigenomics the future of nutrition?

Personalised nutrition diet recommendations tailored to your genetics, preferences, and predispositions may well replace one-size-fits-all advice in the future. Genetic tendencies are forecasts, not guarantees. Nutrigenomics can't eliminate all the trial-and-error, diet, supplements, and workout routines. But the benefit of nutrigenomics is that it gives you a more targeted approach to determining what steps you can take to feel better.

(The writer is the preventive healthcare specialist and joint managing director at Indus Health Plus)