Precision Diets

There is no shortage of diet books and online advice about what to eat (avoid sugar, lose weight with the Keto diet, drop gluten from your dinner table) but all of this information is generic, offered to everybody, and you, reading this, are an individual, with your own unique biochemistry. It’s possible that some of this advice—indeed, most of it—is irrelevant to your specific metabolism.

The National Institute of Health is currently spending $156 million to examine how Americans process food, in an effort to determine how much of the generic advice can be applied to everybody. A total of 10,000 volunteers are wearing monitors that track their diets, physical activity and blood sugar levels. Eventually, a select group will be fed a highly-controlled diet, and visit a clinic that will track blood sugar levels, proteins in the system and even the composition of their gut biome. In a third stage, 1,000 volunteers will stay at a clinic for three two-week-long periods, eating meals that will be strictly controlled, with the same physiological tracking, but also assessing psychology and behavior measures.

The algorithms that are being developed will provide much better guidance on food choices for people with metabolic disorders or food intolerances, and help our society tackle such chronic health plagues as diabetes, obesity and hear disease. But more generally they will help nutritionists prescribe diets that are tailored to each individual. Given the link between diet, longevity and health, making nutrition a precision science could be transformative for all of us.

Source:

<https://singularityhub.com/2021/02/16/massive-national-health-study-looks-to-tailor-your-diet-to-your-genetic-makeup/>