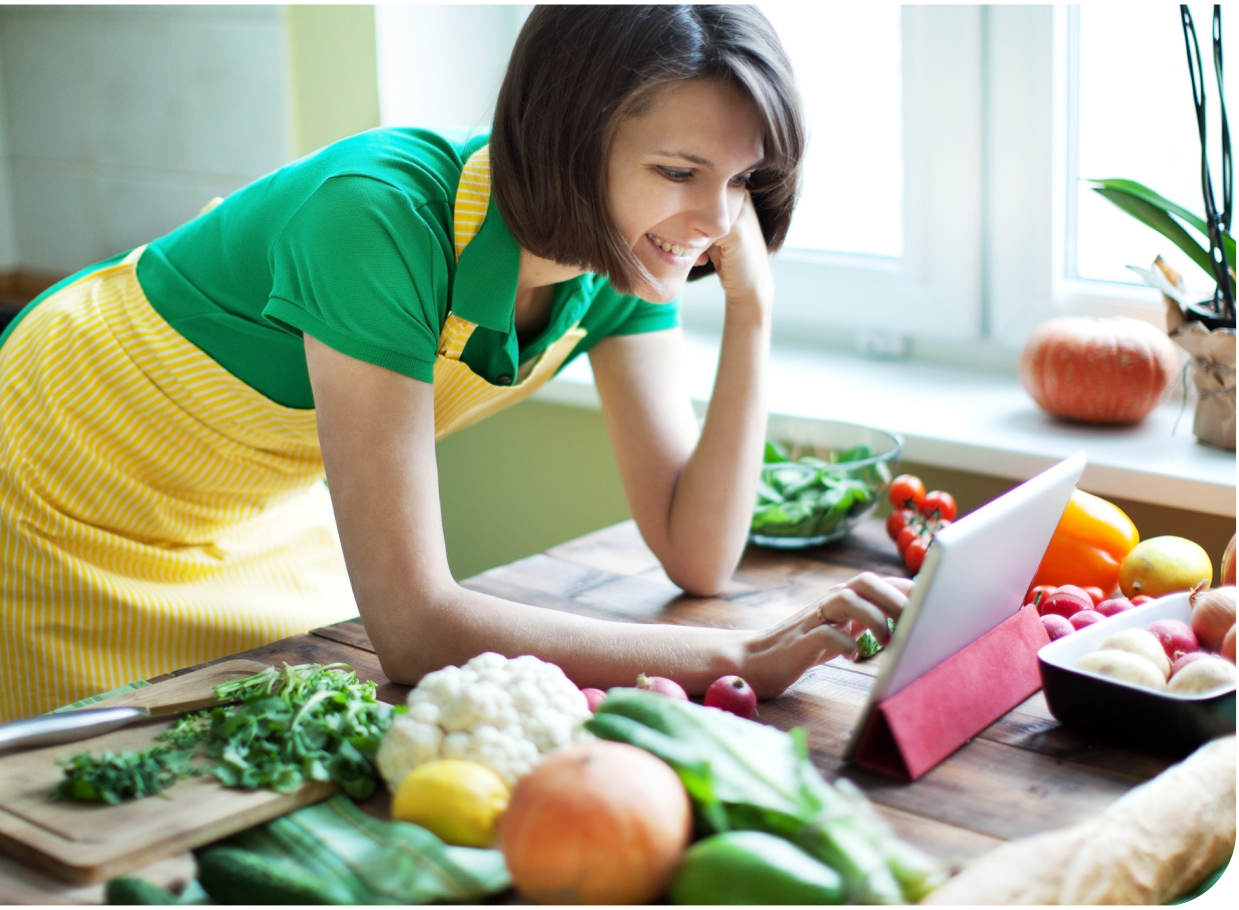

The promise of personalized nutrition

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When it comes to diet, nutrition and health, it is possible that there is no one-size-fits-all solution.

Some individuals might respond positively to a high-fat diet, while others develop high cholesterol. In some cases, reducing carbohydrate intake might help people lose weight, whereas others can shed pounds by increasing complex carbs and reducing fat. These differences may be related to the interplay between individual genetics and lifestyle choices – where complex interactions between environment, physical activity, genetics, and food lead to population subgroups.

These variations have led scientists to investigate the potential of personalized nutrition, which is defined as a method to preserve or increase health using genetic, phenotypic, medical, nutrition, and other relevant information about an individual to deliver specific health-related eating guidance.[1]

Early research was promising, as scientists mapped the human genome and looked at how knowledge of DNA could help or prevent disease. This gave rise to a number of genetic testing companies and products to track individual data, as well as DNA-based diets.

More recently, however, it seems that there may be more questions than answers. While there is significant evidence that diet can be a factor in the prevention of common chronic health issues like heart disease, cancer and diabetes,[2,3,4] newer studies have also illustrated how complex the answers may really be. The 2017 Food 4Me study, a large randomized controlled trial to investigate the efficacy of personalized nutrition, found there was no particular evidence that applying phenotypic and genotypic information to diet produced any benefits – although the personalized approach was shown to be more effective in motivating participants to maintain a healthier diet regimen.[5]

In 2018, a study called PREDICT, from Kings College London and Harvard Medical School, set out to look further at the question of individual response to food. The study, a culmination of decades of work on response to dietary interventions and weight, included data from 1,000 identical twins. Interestingly, the researchers found that even identical twins respond differently, leading them to conclude that genes may play only a limited role in how a person processes nutrients like carbohydrates and fats.[6]

That is not to say that there were no positive conclusions. One researcher from the PREDICT study noted that the good news is that our health may actually be more influenced by modifiable, environmental factors such as sleep, stress, exercise and the diversity of the population in our individual microbiomes.[7]

Where to go from here….

Given the confusing scientific data, it is little wonder that consumers are intrigued but also confused about personalized nutrition. While it is a micro-trend in the food and beverage space, the idea of actually taking a DNA test to predict genetic predisposition to disease and inform dietary practice is not currently very relevant to most consumers, according to *New Nutrition Business'* Ten Key Trends in Food, Nutrition and Health 2020. That said, the report suggests that consumers are interested and are personalizing their diets by doing their own research and deciding what works best for them.[8]

This is playing out in a variety of ways for the food and beverage industry. A 2018 study indicated that consumers are more receptive to personalized nutrition when it comes to food choice motives, such as weight loss, mood and overall health, while they are less receptive when it comes to price.[9]

Not surprisingly, consumers are more aware and interested in diets that they believe may be more appropriate or effective for them as individuals. This has prompted exploding interest in specific eating regimens. Diets such as the high-protein keto, or more plant-centric regimens, such as vegetarian, vegan or flexitarian, are on the rise.

As food gets more personal for people, it is not only connected to their individual health and wellness, but also to their personal value systems.

> When consumers become more informed about the way food is produced and its impact on the environment – issues of sustainability and accountability – they tend to seek out products that are aligned with those individual beliefs.

Personalized 2.0

Although nutrition combined with genetic testing may not yet be mainstream, these concepts are prompting emerging trends and opportunities in the realm of personalization. According to analysts at the Hartman Group, key opportunities to personalize will be areas that are tied to positive motivators such as microbiome health, supporting sleep, reducing stress, neuro health and anti-aging.[10]

But Hartman analysts add that it is important for companies to stay focused on the science. Consumers have become more attuned to evaluating food ingredients and production processes. In turn, they are asking more questions and expect companies to be truthful.

These personal ideas are also affecting the way people shop. Shoppers in today's households are buying food in increasingly personalized ways, according to the 2019 Food Marketing Institute's U.S. Grocery Shopper Trends. While they don't necessarily expect personalized treatment from retailers, they do want shopping to be easier and more flexible to meet their changing and variable needs, which includes buying more for individuals, rather than the family unit.[11]

Another way these ideas will gain steam in 2020 is through growing interest in a more mindful or intuitive eating approach. The tenets of intuitive eating (which are inherently personalized because they are typically geared to a an individual's body type and personal ideas) involve rejecting the overall diet mentality to discover a more instinctive eating style, feeling full by listening to the body's signals and observing signs of satiety, respecting the body and making realistic goals for its unique genetic blueprint.[12]

The broader concept of mindful eating is also helping to bolster the era of minimally processed foods, such as the free-from movement, which is directing dietary preferences and boosting interest in alternative products, according to Euromonitor International's Evolving Trends in Food and Nutrition.

Products featuring claims under the "clean label" umbrella are growing as significant numbers of consumers continue to adhere to self-imposed dietary restrictions that range from drinking more water and limiting intake of sugar to eating less salt and saturated fats.[13]

As consumers continue to look for products that fit their values, lifestyle, and health goals, packaged food companies are working to create new products, as well as eating occasions, for these consumer segments. Euromonitor analysts suggest that the oldest and youngest consumer segments represent key future opportunities. Both the oldest and youngest generations have been a focus for many brands. For example, companies are developing products that can meet unique nutritional needs of both older consumers (think aging, active seniors) and child-specific formulas (products for toddlers or young school-age children).[14]

Ultimately, while personalization may not revolutionize the food and beverage space soon, technology and individualization will continue to be important for consumers. Manufacturers will need to stay on top of the trends as more customers recognize the importance of maintaining a personal and individualized eating approach.

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