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Food. Our need for it is primal, but our relationship with it is complex and ever-changing.

For many in the developed world, eating has become a leisure pursuit, and cooking a hobby. But our bodies are still hard-wired for a tougher world where food means survival. Our sense of taste, for example, evolved to be a front-line defence against toxins and a sensor to help detect the most energy-rich fare. However, our innate craving for sweets and fats now seems to be leading us down a path of bodily destruction.

Food affects people differently. Current nutritional research involves looking beyond ingredients in an attempt to understand the effects of food at genetic and epigenetic levels. From the first milk meal we take, through feast and famine; our genes influence our diet, and nutrients — or lack of them — affect gene expression.

Regional differences in food and culture have left their mark on our genome. Around the world, populations have adapted to their diet to make the most of local resources. In some instances, a foodstuff can protect against deadly infection, giving selective advantage to those who can readily digest it.

Nutrition has also directed the evolution of our species. Only *Homo sapiens* and our extinct hominin cousins have used fire to manipulate raw food, thereby creating safer, easily digestible and tastier recipes. Combined with the use of tools and an omnivorous, wide-ranging appetite, the advent of cooking increased the energy yield for metabolism and fed our enlarging brains.

Because food is packed full of complex, biologically active molecules, the fact it has an impact on our health is no surprise. Yet teasing apart the effects of each component on the body is a tall task, and one that will continue for many years to come. Some people predict an age of diets customized to individual energy needs and disease susceptibility. But no matter how good the science is, or how well we are able to exploit food as an agent of healthfulness, we will still be eating for pleasure for some time yet.

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