

Chapter 6: The Crisis of Abundance: Can Our Ancient Genes Cope with Our Modern Diet?

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This chapter delves into the mismatch between our ancient genes and modern diet, highlighting a condition commonly unseen but prevalent: nonalcoholic fatty liver disease (NAFLD) and its advanced form, nonalcoholic steatohepatitis (NASH). These conditions have surged alongside obesity and hyperlipidemia, often flying under the radar due to their asymptomatic nature in early stages. Initially spotted in individuals consuming excessive amounts of fructose-laden beverages rather than alcohol, the surge in NAFLD/NASH cases is linked to our genetic predisposition to store fat—useful in our ancestral past for surviving famines but maladaptive in today's world of caloric abundance.

The discussion then moves to an overarching epidemic of metabolic disorders, with insulin resistance at the crux—a condition leading not just to type 2 diabetes but significantly increasing the risks of cardiovascular diseases, cancer, and Alzheimer's. This points to a broader realization: metabolic health is central to combating these issues, more so than obesity alone. Despite the strong correlation between obesity and metabolic diseases, the text reveals that this relationship is not straightforward. Many non-obese individuals also suffer from metabolic disorders, suggesting that the issue is not merely one of excess weight but of how our bodies handle the modern diet.

In exploring our evolutionary backdrop, the text articulates how our ancestors' adaptation to store fat from fructose consumption—critical for survival in times of scarcity—becomes a liability in an environment where sugary diets are common. The metabolism of fructose is singled out for its unique pathway that promotes fat storage and metabolic dysfunction. The author stresses that our body's response to excess fructose, due to the lack of the enzyme uricase, explains the sharp rise in metabolic disorders, showcasing a deep evolutionary mismatch.

The chapter concludes with a critique of current medical practices that focus too late in the disease trajectory, underscoring the urgent need for early interventions in metabolic dysfunctions. It suggests a proactive approach, monitoring various biomarkers including insulin levels, to address metabolic health way before the onset of diabetes or other related diseases. The narrative emphasizes that through adjustments in diet, exercise, and sleep, individuals have significant control over their metabolic health, providing a hopeful thesis on preventing the modern epidemic of metabolic disorders and extending human longevity.