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Epigenetics for precision health & performance

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A precision, whole systems genomics approach to thriving health and wellbeing has enormous clinical applications in the emerging field of environmental epigenetics research. We can now look at all aspects of an individual's life, their medical and family history, occupation, their lifestyle, the environments they function in, individual systems diagnostics and genetics along with real time markers from sensor and mobile data to provide precise lifestyle interventions to optimize and enhance gene expression. This new precision offers high specificity on health, tracks how individual choices affect health now and how that translates to the future. It also provides new insights about how we are interacting with our environment, in real time and in detail. The interplay of our genes and our experiences, of nature and how it interacts with nurture, has now moved from the mysterious to the knowable. The science of epigenetics assists us to create precise optimization strategies by taking the reigns of gene expression to adapt and thrive under modern environmental pressures. Every decision we make contributes to this process in some way. The food we eat, the quality of sleep we experience, the cars we drive, the products we clean with and put on our skin, the thoughts we think, the levels of stress we carry and the chemicals and medications we dump into our water supply, all have an effect. This discussion will detail the evidence-based use of precision epigenetics and genomics as strategies to mitigate the effects of environmental toxins in the human system. Additionally, we will discuss actionable lifestyle modifications and system support processes to fine tune and enhance our human experience as we interact with our environment.