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What Was Human Birth Weight in the Past? Simulations Based on Data on Stature from the Palaeolithic to the Present

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ABSTRACT Human populations are well known to have undergone secular trends in height. Due to the sensitivity of stature to nutrition in early life, these trends in height imply complementary trends in birth weight, albeit displaced in time by a few generations. This article presents a simulation of birth weight in past populations, based on the assumption of an inherent association between birth weight and adult height. These simulations suggest a substantial decrease in birth weight between the Palaeolithic and Neolithic periods, followed by more modest trends within the historical era. Whilst birth weight clearly responds to other environmental factors, these findings give some indication of the magnitude of plasticity in birth weight across time, and have implications for our understanding of the energy costs of reproduction and the likely survival of infants across different periods of human evolution.