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Breast milk hormones and their protective effect on obesity.

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Data accumulated over recent years have significantly advanced our understanding of growth factors, cytokines, and hormones in breast milk. Here we deal with leptin, adiponectin, IGF-I, ghrelin, and the more recently discovered hormones, obestatin, and resistin, which are present in breast milk and involved in food intake regulation and energy balance. Little is known about these compounds in infant milk formulas. Nutrition in infancy has been implicated in the long-term tendency to obesity, and a longer duration of breastfeeding appears to protect against its development. Diet-related differences in serum leptin and ghrelin values in infancy might explain anthropometric differences and differences in dietary habits between breast-fed and formula-fed infants also later in life. However, there are still gaps in our understanding of how hormones present in breast milk affect children. Here we examine the data related to hormones contained in mother's milk and their potential protective effect on subsequent obesity.

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