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## editorial

# From native core microbiome to milk-oriented microbiome

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The human microbiome is the full set of microorganisms (microbiota) present on and in our body. Its importance is such that the human being has been defined as a holobiont, that is, a superorganism made up of human eukaryotic cells and microbial cells. A balanced microbiota (eubiosis) is a prerequisite for health and well-being; on the contrary, an altered microbiota (dysbiosis) is the cause of pathological conditions. This concept is the cornerstone of the “microbiota revolution”: Currently there is no disease that cannot be re-interpreted as a function of microbiome.

While all human beings have similar DNA, it is the microbiome that make every person genetically unique; therefore the microbiome is the variable component of the genome which characterises each one of us.

About one third of the microbiome is common to all individuals, while two thirds are specific to each subject and constitute a sort of fingerprint that forms and stabilises in the first 2–3 years of life. This timeframe is extremely important since it has been shown that the structure of the microbiome is already acquired in the embryonic-fetal period, it is completed within 3 years and lasts a lifetime.

The native core microbiome is the first microbiota and characterises individuals for their whole life. It is affected by four main variables: The quality of family and social life of the mother-to-be, the intake of drugs during pregnancy, as well as the type of birth and breastfeeding.

It is renowned that breast milk is a complex, unique and essential food for the growth of the child, but one of its functions - which is still under investigation today - is to feed and guide the formation of the microbiome of the newborn even after the introduction of solid foods, during the first 3 years of life.

This function is carried out by the over one hundred different types of oligosaccharides that are present in breast milk, which is why these days we talk about the so-called MOM (milk-oriented microbiome). The correct formation of the microbiome affects the entire life of an individual.

This is a more than valid reason to promote breastfeeding even after eruption of baby teeth and throughout the weaning period.

The role of pediatric dentists, together with hygienists and pediatricians, is to spread and stress out the importance of oral hygiene so that breastfeeding can only bring benefits and not carious lesions!