

Let's Start at the Beginning: A Healthy Gut From Day 1



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Establishing healthy nutrition practices from infancy through to childhood and adolescence is essential in ensuring a healthy digestive system throughout our lives. Several studies have found that changes made during these early years can have a significantly positive effect later in life, including the prevention of non-communicable diseases, such as obesity, diabetes, inflammatory diseases, and certain types of cancer.¹

In the context of today's digestive health landscape, the importance of these early preventative measures cannot be overstated. A recent pan-European study, commissioned by United European Gastroenterology (UEG), on the burden of digestive diseases and cancers, revealed the significant health and economic toll these diseases exert on societies in terms of disability and premature mortality, as well as on health system expenditure and productivity losses.² In 2019 alone, there were an estimated 72 million incident cases of digestive disease across Europe, with an associated direct cost of 25.3 billion EUR.²

Effectively preventing these diseases and their burden starts early in life, so it is critical that we focus on the measures we can take right from the beginning to reverse this concerning trend, and protect the health of future generations.

THE FIRST 1,000 DAYS

Our gut health and development of digestive diseases are closely tied to the human microbiome. While genetic variability is a significant contributor to the composition of the human microbiome, environmental factors, such as diet, medication, and stress, heavily influence the microbiome,³ potentially increasing an individual's risk of developing certain digestive diseases. One of these factors, diet, comes into play early in life, particularly in the first 1,000 days.³ Numerous studies have demonstrated the pivotal role of exclusive breastfeeding, and the age of introduction of a variety of foods during infancy, in establishing a well-developed adult microbiome.³

The European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) and the World Health Organization (WHO) recommend exclusive breastfeeding in the first 6 months of life, and continued breastfeeding as long as mutually desired by both mother and child. Breast milk is considered the optimal source of nutrition at this young age, as it contains a mixture of bioactive peptides, nutrients, vitamins, and minerals that are essential for driving healthy development.^{4,5}

The benefits of breastfeeding extend well beyond infancy, and have been associated with various long-term health outcomes, including a lower incidence of inflammatory and autoimmune diseases, asthma, certain types of cancer, Type 1 diabetes, and one of the most pressing public health crises currently facing the world, obesity.^{5,6}

Investigating this issue from a health equity perspective, breastfeeding has also been highlighted as one of the most cost-effective interventions for protecting children against malnutrition, with breastfed infants benefitting from lower infectious morbidity and mortality rates.⁶ However, despite this evidence, breastfeeding rates remain well below WHO recommendations in both high- and low-income countries.⁷ This demonstrates the urgent need for educational and promotional strategies across the globe that support and motivate a successful mother–infant breastfeeding relationship.⁵

Another consideration in long-term disease prevention is the introduction of allergenic foods, such as peanuts, eggs, and shellfish, at an early age. In recent years, the increasing prevalence of food allergies has become a growing health problem, affecting up to 10% of individuals in Western countries.⁸

A meta-analysis and systematic review from 2023 showed that the early introduction of multiple allergenic foods was associated with a lower risk of developing food allergies later in life.⁹ A 2017 position paper by ESPGHAN supports this, recommending the introduction of allergenic foods as early as 4 months of age, while supporting continued breastfeeding.¹⁰

While complementary foods (solids and liquids other than breast milk or infant formula) should be introduced after 4 months, whole cow's milk should not be used as a main drink until the child reaches 12 months of age.¹⁰ Research indicates that infants who consume large volumes of cow's milk face an increased risk of iron deficiency and iron deficiency anaemia.¹⁰ This heightened risk is likely due to the low iron content and bioavailability of iron from cow's milk, as well as the displacement of other iron-rich foods from the diet.¹⁰

TIME FOR ACTION

The worrying lack of progress seen in recent decades in confronting the burden of digestive diseases and cancers points to the need for the greater adoption of evidence-based preventative methods. In line with the theme selected by the World Gastroenterology Organisation (WGO) for World Digestive Health Day, which focuses on the importance of maintaining a healthy gut from the outset, we are exploring ways to ensure action is taken at an early stage.

To push forward progress, the preventative measures discussed must be prioritised and integrated into national health agendas to ensure digestive health is effectively addressed, and considered at the very beginning. This early action will deliver tangible benefits for decades to come.

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