THE IMPORTANCE OF THE FIRST 1,000 DAYS OF LIFE

1. What you should know about the first 1,000 days of life

- First 1,000 days of life: period from conception to 2 years of age
- Bacterial colonization starts after birth
- At least 80% of the immune cells are located in our gut
- Importance of bidirectional crosstalk
  - The gut microbiota participates in the development of the immune system
  - The immune system is involved in the maturation of the gut microbiota

2. Development of the intestinal immunity

   2.a. Development of the gut microbiota
   - Bacterial colonization starts after birth
   - Commensal bacteria

   2.b. Maturation of the immune system
   - Development of gut’s immune structures
   - Immune cells
   - Antibodies

3. Factors shaping microbiota composition & immune system development

   - Drugs
   - Antibiotics
   - Acid-reducing drugs (proton pump inhibitors)
   - Delivery
   - Vaginal
   - Caesarean section
   - Gestational age
   - Preterm infants (22 - 36 weeks of gestation)
   - Diet
   - Breastfeeding
   - Introduction to solid food
   - Diet rich in fibers
   - Formula milk
   - Maternal high-fat diet
   - Environment
   - Pets
   - Nature
   - Farm

4. Any imbalance in the gut microbiota (dysbiosis) may potentially lead to negative health outcomes in the future

   - Digestive diseases:
     - Inflammatory bowel disease
     - Colorectal cancer
   - Metabolic diseases:
     - Obesity
     - Diabetes
   - Allergic diseases:
     - Asthma
     - Allergic rhinitis
     - Atopic dermatitis
   - Chronic inflammatory diseases:
     - Rheumatoid arthritis
     - Coeliac disease
   - Neurological diseases:
     - Autism spectrum disorders

For more information about the microbiota go to www.biocodexmicrobiotainstitute.com

References on the website

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