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IRRITABLE BOWEL SYNDROME IN CHILDREN & ADOLESCENTS

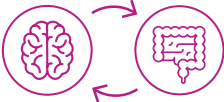


What is it and how the gut microbiota may contribute?

Irritable Bowel Syndrome (IBS) is a disorder of gut-brain interaction characterized by recurrent, but not continuous, abdominal pain or discomfort and changes in bowel habits, without structural abnormalities. It is often associated with higher stress or anxiety levels and may be linked to alterations in the gut microbiota.¹

DID YOU KNOW? ^{1, 2, 3, 4, 5}

 **5,8%**
global prevalence
among 4-18 year olds


**One of the most common disorders
of gut-brain interaction (DGBI)
in children over 4 yo**

HOW DOES IBS MANIFEST? ⁶


**Recurrent
abdominal pain**


**Bloating
and/or distension**


**Altered bowel habit
(frequency and/or shape
of the stools)**

FACTORS ASSOCIATED WITH IBS ⁶



High prevalence
in girls



Higher prevalence
in children 8-12 y.o.



Anxiety, depression,
worry, abuse



Past history of
gastroenteritis



Asthma



Born to mothers with:
-Gestational diabetes
-Pregnancy induced
hypertension



Fat, sugar,
spicy food



Affluent social class
Exposure to cold

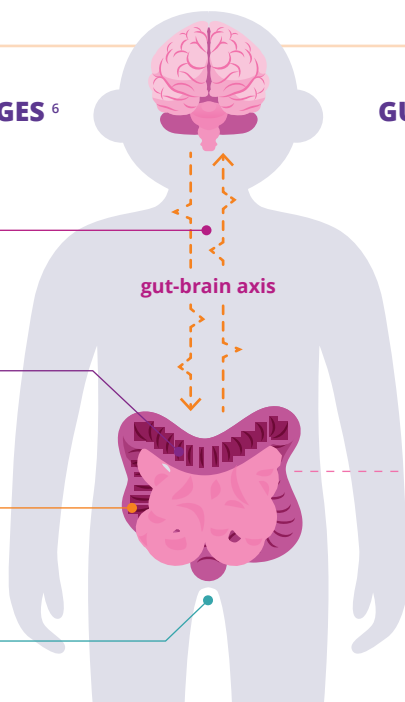
BIOLOGICAL MECHANISMS CHANGES ⁶

**Disrupted gut-brain
communication**
gut signals are amplified by the brain

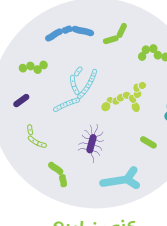
Intestinal hypersensitivity
normal sensations can be
painful or uncomfortable

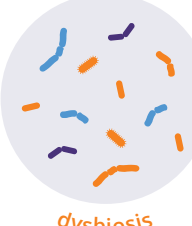
Infection & inflammation
mild inflammation, inflammation
after digestive infection

Irregular transit
(constipation, diarrhea or both)



GUT MICROBIOTA IMBALANCE (DYSBIOSIS) MAY BE OBSERVED ⁶

healthy children

eubiosis

IBS children

dysbiosis

Dysbiosis may influence mechanisms
involved in IBS: intestinal permeability,
brain function, enteric nervous system,
gastrointestinal motility, visceral pain

HOW TO RELIEVE SYMPTOMS AND IMPROVE QUALITY OF LIFE ^{5, 6, 7, 8, 9, 10, 11, 12, 13}

According to international guidelines from ESPGHAN/NASPGHAN


**specific
medication**


selected probiotics
specific strains


**rich fiber diet
& prebiotics**


healthy lifestyle
good hydration, regular diet
and physical activity


psychotherapeutic interventions
Cognitive Behavior Therapy (CBT),
hypnosis, psychodynamic, relaxation...
for long term psychological support


promising approaches
Transcutaneous Electrical
Nerve Stimulation (TENS),
peppermint capsules

