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WHAT IS FUNCTIONAL DYSPEPSIA?

and how is it related to my microbiota?



Functional dyspepsia (FD) is a **chronic disorder of gut-brain interaction (DGBI)** defined by **abdominal symptoms** originating from the **upper gastrointestinal region**. It is often associated with **psychological factors** and could be related to unbalanced **gut microbiome** ^{1,2}.



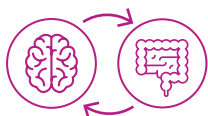
FD is diagnosed according to Rome V criteria

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

one of the most common digestive pathologies



1 in 10
adults, under-diagnosed



Disorder of the gut-brain interaction



Chronic disorder
with common overlap
with gastroparesis, reflux,
irritable bowel syndrome
and bloating symptoms

SYMPTOMS AND SUBTYPES

No tissue nor organ damage.



Early satiation
« I feel full even
if I don't eat much. »



Postprandial fullness
« I feel like I have a stone
in my stomach. »

at least 2 days per week*



Epigastric pain
« It's like being stabbed
from the inside out. »



Epigastric burning
« My stomach burns
like it's on fire. »

at least once per week*

Postprandial Distress Syndrome (PDS)
→ the most common form



Symptoms occur/worsen within
2h after meals and can include:
pain, burning, nausea, bloating,
excessive belching.

Epigastric Pain Syndrome (EPS)

PDS criteria must be absent.
May or may not be related to meals.

*Criteria fulfilled for the last 3 months with symptom onset since at least 6 months

RISK FACTORS: *Helicobacter pylori* infection, being female, using certain pain relievers such as aspirine and ibuprofen, smoking, anxiety or depression, history of childhood physical or sexual abuse. ⁴

THE BIOLOGICAL MECHANISMS ^{1, 2, 4}



Psychological factors
including stress, anxiety
or depression



Stomach hypersensitivity
Abnormal relaxation, visceral
hypersensitivity, slow emptying,
neuronal dysfunction



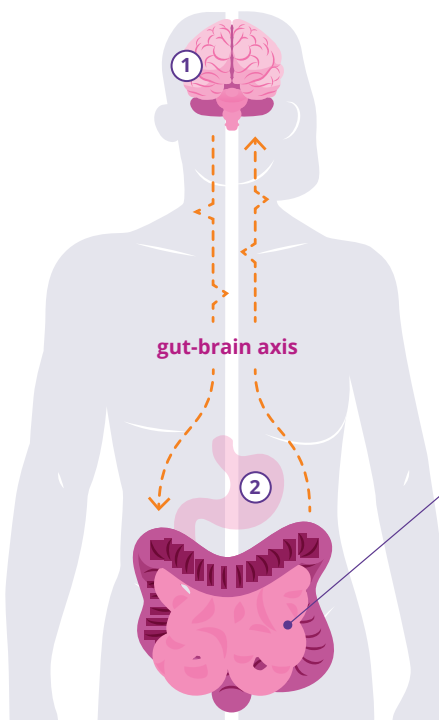
Disruption of the gut barrier
Increased intestinal permeability



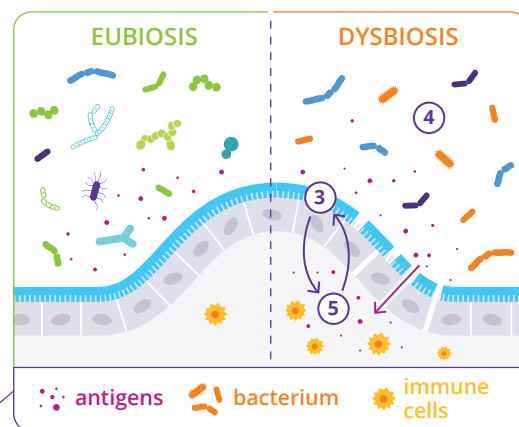
Altered gut microbiota
Change in microbes
composition and function,
mostly in the duodenum



Intestinal immune activation
Excessive response with
immune cells infiltration



THE GUT MICROBIOME IMPACT ON FD ^{1, 2, 4}



→ Restoration of **gut microbiota**
→ Restoration of **gut barrier permeability**
→ Reduction of **visceral hypersensitivity**
→ **Anti-inflammatory** action
→ Regulation of **gastrointestinal motility** ⁸

HOW TO RELIEVE SYMPTOMS AND IMPROVE QUALITY OF LIFE? ^{2, 4, 6, 7}



healthy diet



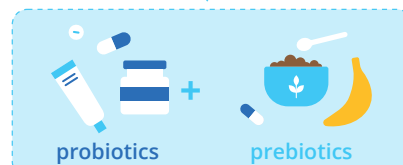
healthy lifestyle



specific medication



psychotherapeutic interventions
Cognitive Behavior Therapy (CBT),
hypnosis, psychodynamic, relaxation...



probiotics

prebiotics



Infography, sources

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