

The Gut Feeling & Gut Healing: Gut Health and Bowel Dis-Ease

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Casa SanAndo

Treat & ReTreat Centre by

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1. Dx & DD

2. Concepts and dis-ease

3. Case studies

4. Tx

WHY????

WHY????

- Digestive complaints account >30% of MD/ND consults
- ^40% of other consults end up working on digestive system
- GUT-BRAIN



Common symptoms

GI tract

- gas, belching, flatulences
- anal mucous
- abdominal distention
- reflux, pyrosis
- postprandial tiredness
- abdominal pain after eating
- changes in BM and/or appetite
- nutritional deficiencies (vitamins B12, A, D, E, Fe...), anemia

Systemic

- PSC/PSCY: mood swings, anxiety, depression
- NRL: confusion, memory and concentration loss, brain fog, headaches
- DER: atopic skin, erythema nodosum, eczema
- fatigue, malaise, fever
- RHEUMA: migratory joint pains, autoimmune
- RESP: asthma
- Allergies (DAO enzyme/histamine alterations)
- Metabolic Sd (fatty liver, dislipemia, obesity, DM, HBP)
- repeated infections

Common Signs

- Clubbing
- Abdominal tenderness
- Increased abdominal sounds
- Pale/Yellow Skin
- Weight loss
- mouth ulcers



Alarming signs

- guarding sign or rebound tenderness
- blood in stools (fresh/red or digested/black)
- fever
- faecal incontinence, urgency, tenesmus
- abdominal mass, hepatomegaly, splenomegaly, adenopathies
- resistance to tx
- muscle wasting
- difficulty swallowing
- Purpura
- spider naevi
- leuconychia
- visible pulsation
- jaundice
- age >50yo
- insomnia/wake up at night due to pain/diarrhea
- Changes in EKG (ST enlargement)

DD

- Gastric: Atrophic gastritis, infection (H.pylori, intestinal TBC, sarcoidosis...), peptic ulcer, achlorhydria, aerophagia, cystic fibrosis
- GI: Infections (C.difficile, Salmonella, TB, Shigella, E. coli), dysbiosis, SIBO, intolerances, allergies, celiac disease
- Cancer, lymphoma, abscesses, cysts, endometriosis, cirrhosis
- Colon: diverticulosis/itis, constipation, intestinal obstruction, cancer, IBD
- Pancreatitis
- Cholecystitis
- Aortic aneurysm
- Hypoproteinemia
- Superior Mesenteric Artery Sd
- PSQ: Eating disorders, self-harm
- others: Chronic Fatigue Sd, fibromyalgia, Lyme disease, heavy metal intoxication
-

Diagnosis

- Anamnesis: what, when, how it happens. Other info (systems/organs, work-related toxins, habits, past medical hx/sx, personality, family Hx...)
- Physical exam: Abdominal, chest, GU
- Blood tests:
 - inflammation (leukocytosis, increased ESR, increased CRP),
 - malabsorption (low protein, low albumine, anemia, low B12, low vK),
 - glycaemic curve (SIBO, intolerances), coagulation (malabs)
 - serology/antibodies: aGL, aTGT, EMA for GLUTEN, anti-CBTb and anti-vinculine for dysbiosis, SIBO, IBS, ASCA and pANCA for IBD...)
 - thyroid
 - genetic testing
 - minerals and heavy metals

- Stool tests: pH, coproscopic (dysbiosis), coproculture (worms)
- Jejunal aspiration (SIBO)
- Breath test (with lactulose-mannitol, lactitol, glucose, 180'): for hyperpermeability, H₂, MH₄, CO₂ (SIBO, intolerances)
- Urine, saliva
- Capillary tests
- MRI
- Endoscopy
- Barium transit/enema XR
- Biopsy



Case Studies

Daniel

Daniel

- Male, 70y, retired politician
- CC: >15y of daily bloating, flatulences (unodorous), abdominal distension, tendency towards hard stools difficult to push.
- Hx: haemorrhoids, occasional heartburn, acid and greasy/sticky stools. Worsened after lunch (veggies, meat, fruits, beer/wine). Lumbar pain, arthritic pain. No abd Sx. Tx: omeprazol 40, aspirin 75
- PhE: distention, tenderness, pain in RUQ, strong and wide pulse, thin white tongue coating

Maria

- Female, 37yo, night-club bar-tender in Ibiza.
- CC: bloating and gas all day worsened at night, 5-6/w, pain, belching, since 1 year ago (after trip to the Philippines, increased smoking and drinking). Slow digestion, loose stools 1/d, increased appetite, no reflux. Occasional sharp LLQ pain
- Hx: Nervous, verborrheic, anxious, stress, hyperactive, overthinking. Recurrent GU tract infections, general muscle tension, past H-pylori. Sx (22y ago) for acute peritonitis. Tries to avoid gluten, osteopath every 2w. Meds: Omeprazol 20, OCPs. Smokes >20/d, drinks lots of beer and other spirits, 3L of Coke/day until 2 y ago. PMS, joint pains, occipital headaches
- PhE: gas and pain mainly in epigastric region. Tongue pale, teeth indentations. Pulse thin and unrooted

Ruben

- Male, 56 y, has an online shop
- Hx: feeling of intestinal tightness for 2y, after stress (activist activity); with difficulty passing stools, 6-8BM/d (long, thin, light brown), occasional postprandial vomiting, flatulences, abd distention, belching, umbilical area pain (1/10) relieved after defecation, hears abdominal sounds, fast digestions, loss of appetite except at night. No reflux/acidity/halitosis. Under Nutritionist care (suspected Candida overgrowth): VitD, Zn, Fe, Probotics, Rosmary EO, Aloe vera+green clay+ spirulina before breakfast, quit sugars/flours/dairy (but is drinking homemade fruit juices and smoothies with nuts, fruits, seeds and greens), mainly raw food. Started propolis 1w ago. Past Hx of hiatus esophagicus, smoking >20/d, 3 coffee/d, hepatitis (age 8), psq visits (with hospitalization 6mo ago)
- PhE: thin, low muscular mass, hyperactive, verborrheic, onychomycosis 2-4 feet, tongue enlarged with thick yellow/dark brown coating, black teeth, muscular tension, tense and strong pulse, cervical adenopathies and slight enlargement of thyroid gland

Remedios

- woman, 61 yo, mid-wife in H
- CC: gas, bloating, distention, colic pain that relieves after flatulence expulsion or defecation which can be explosive, since 37y ago (first pregnancy, C-section). Also with LBP, nausea, dizziness. 1-2BM/d, heavy dig, postprandial tiredness, feeling of indigestion. “I can't eat anything, I feel better when I don't eat”.
- Hx: cold sweats, foggy mind and photopsia, pruritus (back), queilitis, insomnia, mental rumination, tinnitus, psoriasis, rizartrrosis/arthritis pain in hands, bilateral shoulder tendinopathy, phlegm in throat, alopecia areata. Hyperch, hyperglycaemic, uveitis. Intolerance to lettuce, onion, legumes. Difficulty swallowing bread. Allergy to latex, Hg, preservatives (kathon). Eats lots of raw fruits and veggies, bread, nuts. Tx: vit D, collagen, Mg, Q10, zolpidem, minoxidil, divecol forte, omegas, lexatin, melatonin, celecoxib on demand.
- PhE: uneasy, tense, irritable, prone-to-anger, difficulty catching breath, abd tenderness, increased abd sounds, fast and tense pulse but weak; tongue with signs of liver congestion. ACP ok. Ear: congested Li-GB.

Josefine

Josefine

- Woman, 65yo, hotel owner
- CC: constipation (since birth), indigestion, insomnia (since 12y ago, death of partner), evening anxiety (eating), polyarthralgias. BM 1/3d (BS 1), fetid, AD, flatulences, reflux, mucus in stools, heaviness in anal region.
- Hx: HD L3-4, right frontal meningioma, hyperch, dizziness, tinnitus, joint rigidity, RLS, cold limbs, fluid retention. SxHx: C-section, colecistectomy (1 y ago), cataracts. Tx: flatoril, omeprazol, danacol, estildanos, orfidal, cator, eye drops. Intolerance to apple, oats, bread.
- PhE: weak and deep pulse, big tongue without coating, no edema but fluid retention is apparent

Ana

- woman, 51 yo, business owner
- CC: fatigue, tiredness, exhaustion, somnolence, dissociation, headaches, blurry vision, low memory/attention span, sadness-anger, since 3 mo ago (holiday trip to Menorca). “I am not myself”
- Hx: complete oofor-hysterectomy 1 y ago due to ovarian cyst (!!!) with chronic anemia since, repetitive candidiasis, cervicovaginitis; has always tended towards constipation but since Sx BM are 2/d, putrid, gassy, loose. Tired and cold after meals. Feeling of tightness on throat. Other Sx: c-section, appendectomy, breast reduction. Family Hx of colon ca. Tx: Brintelex, omeprazol, laxatives, Fe
- PhEx: enlarged tongue, pale-blue; very deep pulse



Concepts

Digestive System



>700 types of microbes

very low content

Lactobacillus, Clostridium, Staphylococcus, Streptococcus, and Bacteroides

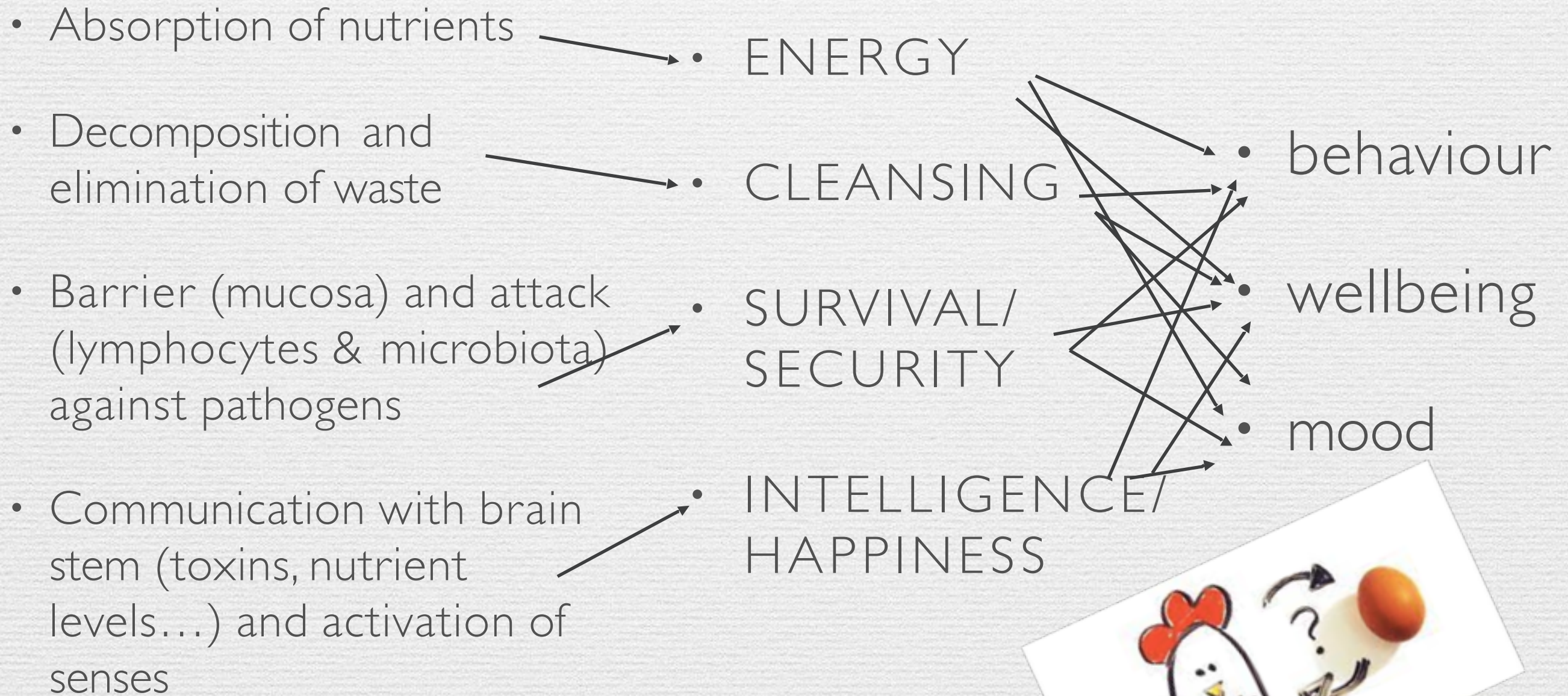
300-1000 types of microbes

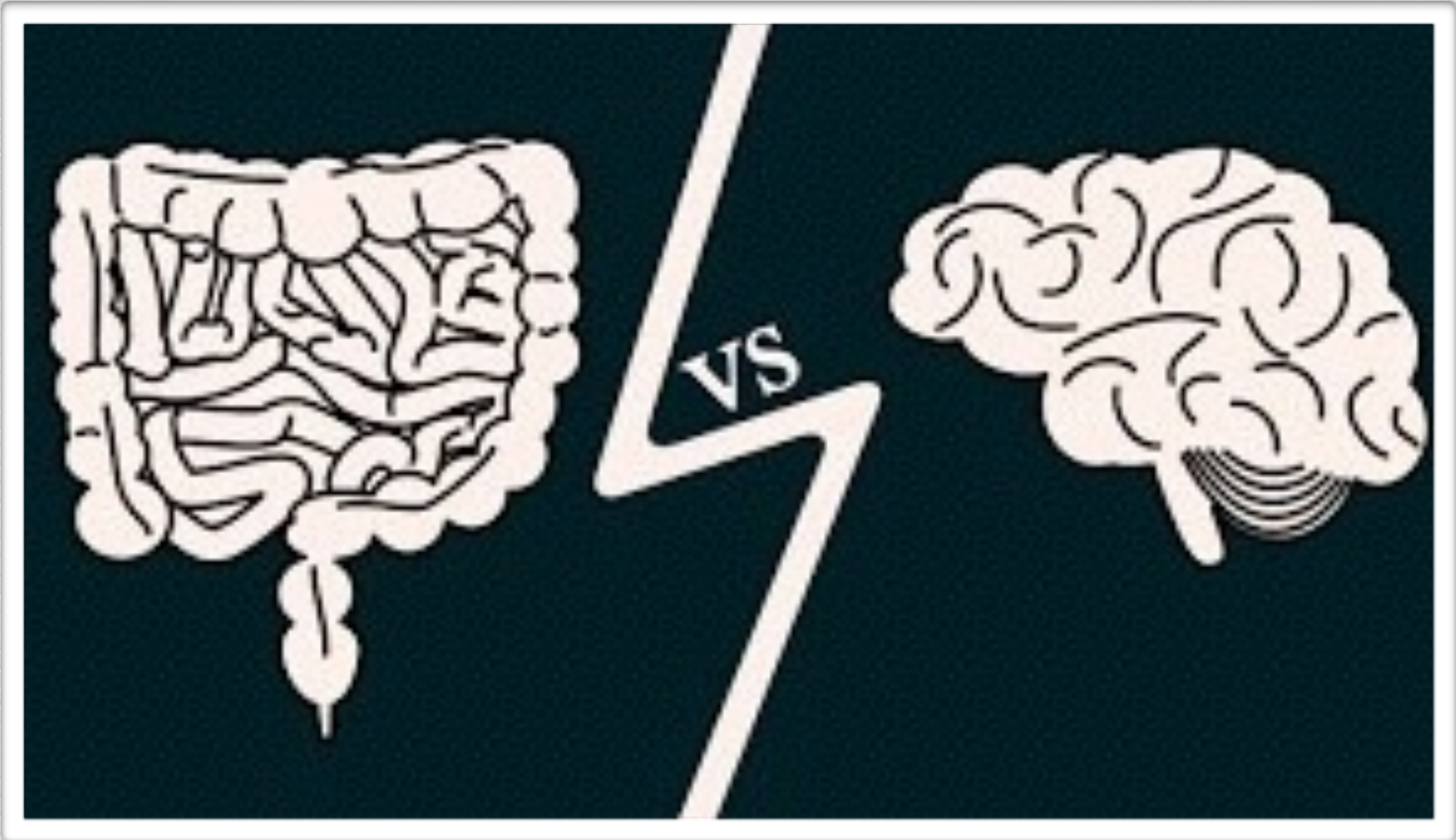
24-72h

1. Teeth
2. Enz, bact
3. Cardias
4. HCl, bact
5. Biliary/Pancreatic acids, enz
6. Yeyunum villi: prot, CH, hydrosoluble vits, folic acid
7. Ileum villi: liposoluble vits, fats, bile salts
8. Reabs water, fibre ferment SCFA, 5HT
9. Expulsion, cleansing

Functions

Functions





**GABA, 5HTP,
DOPA**

butterflies

cravings



VAGUS NERVE

intuition

sick

Intestinal Permeability

- Property of the enterocytes (cellular) that allows solute and fluid exchange between intestinal lumen and blood/supply to other tissues
- Intercellular junctions
- Tight junctions (size and charge selective): regulated by TNF & IL13

Intestinal Barrier

- Function of the mucosa and extracellular barrier components (mucus, microbiota) to prevent fluid/solute exchange between lumen and blood

Eubiosis

Eubiosis

- 2kg of our body
- we have 10:1 ratio (bacteria vs cells)
- we still need to discover more than 30% of them
- bacteria, archea, viruses, protozoa, fungi
- HOMEOSTASIS: needed!
 - PROTECTIVE: lactobacillus, bifidobacterium, bacterioides, S.boulardii
 - IMMUNE-MODULATORS: E. coli, E. faecalis
 - MUCO-NUTRITIVES: Faecalibacterium prausnitzii, Achermsia muciniphila
- SAPROFITS: needed in certain amount
- - Proteolytic: E.coli biovar
 - digestion of fibre

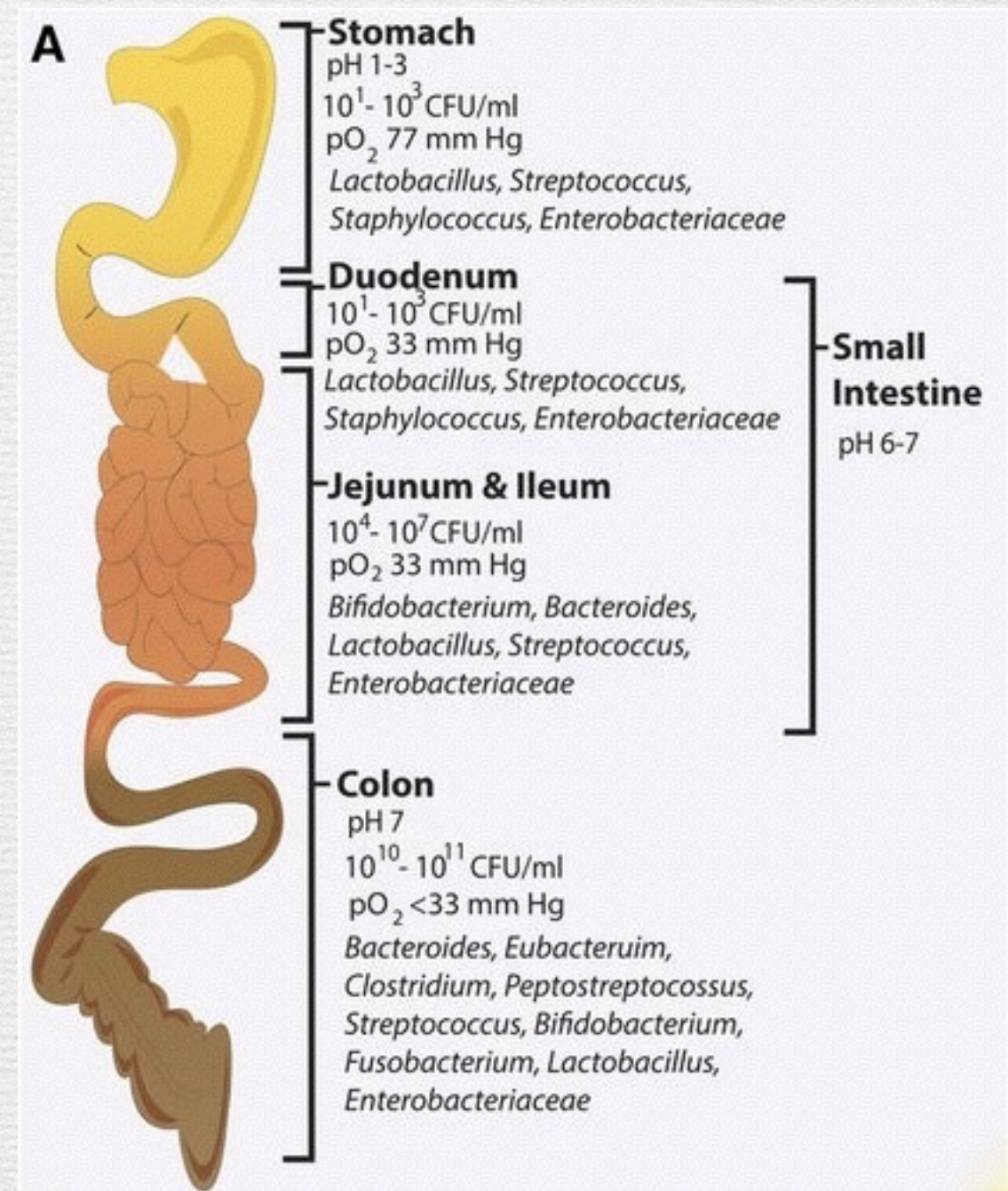


Microbiota

Microbiome



Biodiversity



Bristol Scale

Bristol Scale



Dysbiosis

- WHY: diet, drugs (corticoids, ATB, NSAIDs), aging, diarrhea, pancreatitis, liver disease, achloridria/PPI, toxins (stress, OH, tobacco), Sx (SBS)
- WHAT: alteration of quantity/quality of microorganisms in the gut
 - loss of Homeostatic bacteria
 - increase/change in saprophytic bacteria: Candida albicans (in micelium shape)
 - invasion of pathogenic bacteria: Bilophila wadsworthia (sulfur gas), Methanobrevibacter smithii (methane), parasites
- RESULT: inflammation → permeability changes → malabsorption/intolerance
 - autoimmune or infectious deactivation of MMC/ peristalsis
 - inhibition of satiating peptides
 - pain, gas, distention, altered BM, reflux, mucus, acute gastroenteritis/colitis, IBS, intolerances, DM, autoi, metabolic Sd, CFS, malabs, malnutr, fear of eating
 -
 - leukopenia, increased monocytes and eosinophils, elastase, calprotectin, butyric acid...

MALABSORPTION

MALABSORPTION

- nutrient not absorbed (SIBO, IBS, allergies or intolerances, acute diarrhea...), passing through bowels causing fermentation and symptoms in the GI
- may cause anemia, malnutrition

Hypochlorhydria

Hypochlorhydria

pH 1-3

regulates cardias

kills pathogens

intrinsic factor (vB12)

abs of Zn, Ca, Se, Mg,

Cu

NT

digestion

GERD

SIBO

infections

malabs

malnutrition

hypoglycaemias

fermentation

IBS

INTOLERANCE

- CH/prots/fats not absorbed, pass to LI and ferment
- symptoms 30'-4h after meals
- individual tolerance
- PRIMARY
 - CONGENITAL (rare): lack of enzymes for digestion, leading to malabsorption and/or hyperpermeability and/or dysbiosis
 - CONGENITAL but ACQUIRED: worsened by age/diet/etc
- SECONDARY: after infections, overconsumption, hyper permeability, drugs (ATB), radiation, IBD, SIBO, Sx
- ALWAYS CHECK FOR UNDERLYING CAUSE!!!
- FRUCTOSE and/or POLYOLS: Glut2 and/or Glut5 malfunction
- LACTOSE: lactase/LDH def
- STARCH: amilase def
- SUCROSE: sucrase def
- HISTAMINE: DAO def
- GLUTEN (non-celiac): fructane?
- CASEIN

IBS

IBS

- functional, irritation: NO fever/haematoecolia
- Gut-brain axis: mood, CFS, fibromialgia, dysbiosis
- ROME IV criteria: >1w, >3mo, >6mo, >2: abdominal pain relieved after defecation, changes in BM, AD, gas, mucus in stools

SIBO

SIBO

- SI Bacterial Overgrowth
 - causes: low HCL, low pancreatic enzymes, low/slow GI motility, ileocecal valve problems, diet, cystic fibrosis, drugs (steroids, PPI, morphine, ATB), endometriosis, SMA sd, Sx, ca, diverticulosis, fistula, IgA deficit, lack of fasting...
 - fermentation, gas production: SULFUR/METHANE/ HYDROGEN
- “From fermentation to intolerance”
 - malabsorption of CH (gas), fats (greasy/pale stools) & vits (ADEK), prots, vB12
 - DAO deficiency
- Tx:
 - ATB (Rifaximine / Metronidazole), Oregano/Alicine/Berberine, B. serrata, A. annua...
 - Fasting between meals + low FODMAP diet
 - Probiotics

IBD



Unrelated to food. Pain/diarrhea wakes them up, bloody stools

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- Immune-related, biopsy, imaging...
- INCREASED risk of cancer.

- CD

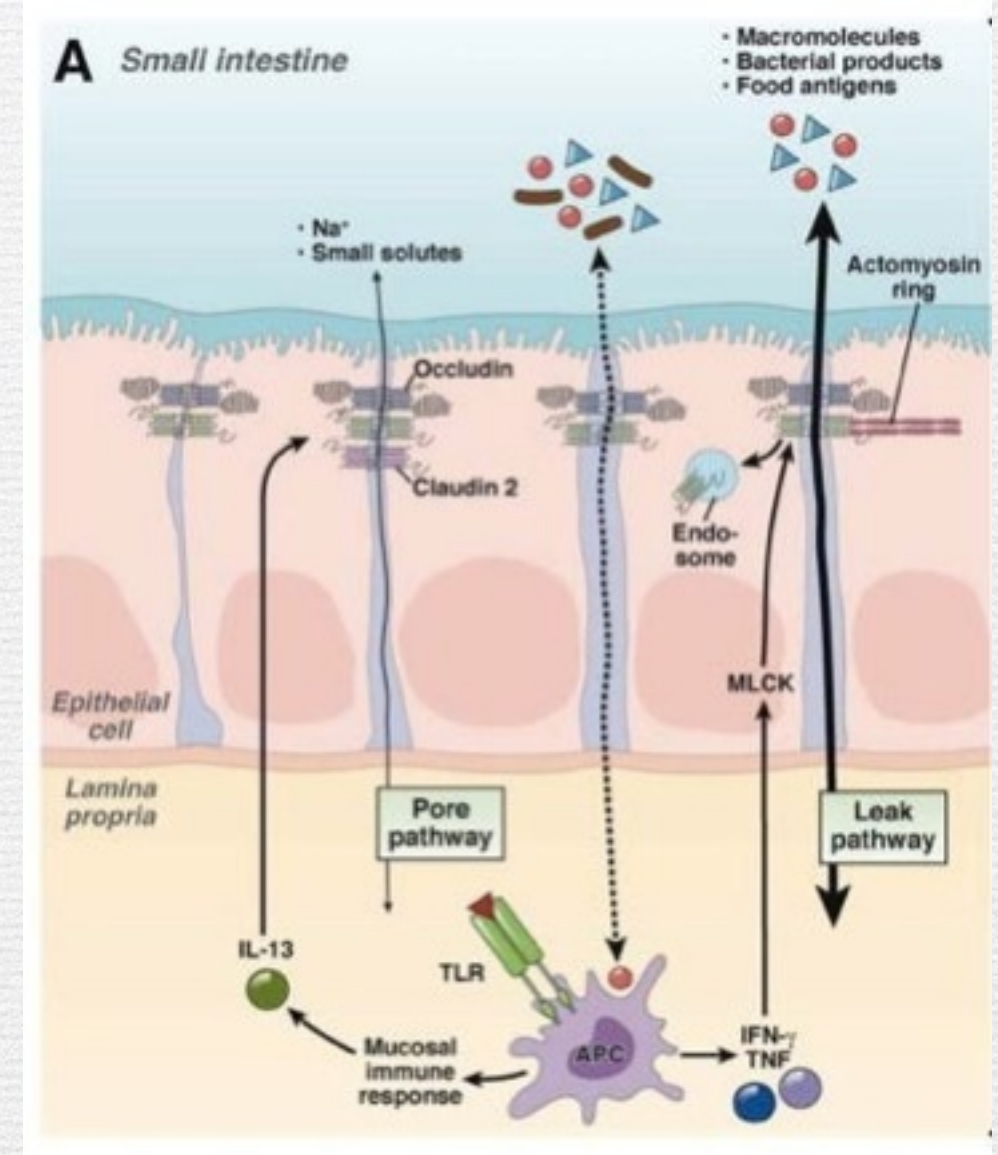
- transmural granulomatous inflammation in GI tract (mainly ileon and colon).
- fever, RLQ pain, malabsorption (fatigue, weight loss, nutritional deficiencies, anemia).
- joints, skin, eyes, mouth sores.

- UC

- mucosal and submucosal nongranulomatous inflammation in colon.
- blood/mucus
- urgency, fever, LLQ pain

HYPERPERMEABILITY

- loss of tight junctions and/or mucous layer and/or bacterial protection
- AG/pathogens/gas released to blood stream: intolerances, IBS, autoi.
- ATP consumption: fatigue



- repeated systemic infections
- allergies, intolerances, autoi
- AD, changes in BM, skin, neurologic (Parkinson's, Alzheimer's, MS, neuropsychiatric conditions, cerebrovascular disease)
- CFS, IBS, IBD

LEAKY GUT SD

GUT HEALTH = GUT HEALING

DISEASE = INFLAMMATION —> PERMEABILITY



Treatment

Case Studies

for symptoms and for root



General Treatment

General Treatment

- 1) Support patient
- 2) Eliminate the root cause
- 3) Help with symptoms
- 4) Restore mucosas/other damage
- 5) Avoid relapse: mindfulness, education, support, addictions/abuse

Conventional medicine

Conventional medicine

- Antibiotics (rifamicine, neomicine, metronidazol)
10-14days
- Corticoids
- Prokinetics/Spasmolytics
- Enzyme (lactase, lysozyme, betaine ...) or
protein supplementation

Natural Medicine

Natural Medicine

- Herbal Medicine: 1-4 months
 - antimicrobial, digestive, carminative
 - Oregano, Neem, Garlic, Pomelo, Tea Tree, Cinnamon... extracts
 - Artemisia absinthium
- Coloidal silver
-
- Physiotherapy/osteopathy
- Colon hydrotherapy/enemas
- Acupuncture
- Physical exercise
- CBD
- Feet Reflexology

Supplementation: MUCOSAL REPAIR

RESTORARE MUCOSAS

- L-glutamine,
- Probiotics (lactobacillus, saccharomyces -if ATB-, bifidobacterium, enterococ faecalis)
- N-A-Glucosamine
- Omega-7/seabuckthorn oil



Supplementation: RESTORE DIGESTION & ABSORPTION

RESTORE DIGESTION & ABSORPTION

- Probiotics
- N-A-Cysteine
- betaine,
- Polyphenols (quercetin, resveratrol, flavonoids)
- Vit B1, B12....



Supplementation: RESTORE IMMUNE SYSTEM

- Vitamin D
- Zn, Mg, Cr, Mb
- Lion's mane, other immune-supporters
- Polyphenols (quercetin, resveratrol, flavonoids)



Diet

Individualized: to Dx /symptoms / consequences

- Decrease:
 - FODMAPs: 6-8 weeks (progressively less strict): decrease simple carbohydrates !!! Avoid cruciferous, asparagus, garlic, onion, potato, plantain, wheat, legumes, fruits, fresh dairy, wines
 - foods that cause individual harm

- Increase
 - fermented foods
 - fats (short chain fatty acids: butyrate, acetate, propionate), EVOO/EVCO
 - non-soluble fibre (pectin, psyllium)



Fasting

Minimum 4h/d

Ideal 12h/d

Up to 36h it accelerates metabolism

- Improves Immune Sys / mood / peristaltism / MMC
- Increases adrenaline / energy levels
- Improves mood
- cheap
- releases glucose from liver/ketones from fat/proteins from structures

Mind balance

Mind balance

- Stress-management
- Meditation/
mindfulness
- CBT: build resilience
- Acupuncture
- Massage therapy
- Exercise
- B F E
- Sleep
- Nature/Sound baths
- Journaling
- Adaptogens



Integrating

Daniel (hard stools, daily bloating, inodorous flatulences)

- US: gas and constipation; Gastroscopy: atrophy. Refused breath testing
- Dx: chronic gastritis, fructose intolerance, hyperpermeab, IBS
- Tx:
 - “detox” diet avoiding FODMAP during 2 weeks. Ginger tea after meals
 - Pro-boulardii plus 2 w; Human biota 2w, afterwards.
 - 200 mg Mg & green clay/night
 - Digestive enzymes 1 mo
 - L-Glut 4 weeks, then seabuckthorn oil 4w
 - exercise (walking) after meals, mind control/contemplation, acupuncture 2x/w

Maria (bloating almost daily, worse during working hours, loose stools, slow digestion)

- Dx: IBS and probable stomach fermentation
- Tx:
 - stop beer/sodas, avoid wheat and other unfermented cereal for 4w
 - drink cumin/anise tea after meals
 - CBT, CBD drops, meditation, acupuncture,
 - Mg, Zn, Se, VitB6, Human Biota, Lion's mane, Omega 3

Ruben (6-8 long-thin-difficult BM/ d, gas, pain, PSQ)

- Tests: high haemoglobin and red cell volume, CRP I, normal TSH and thyr panel; Gastroscopy: chronic atrophy
- Dx: internal Wind and fire-phlegm (TCM)
- Tx:
 - marshmallow, broths, increase cooked food, stop Fe
 - acupuncture-moxibustion, CBT, Reiki, foot reflexology. After 5th session improvement is high except general energy levels (feels tired), phlegm feeling, and still 3 incomplete BM/d. He's happy, moves to BL.
 - colon hydrothx (doesn't do), Psyllium (doesn't do), seabuckthorn oil (doesn't do).
- Calls me 4mo later as he had peritonitis due to ruptured diverticulitis. COLONOSCOPY reveals diverticulosis

Remedios (gas, colic pain after meals, indigestion)

- Tests: I suggest breath test, abd US (she doesn't do)
- Dx: liver Qi stagnation, probable internal wind; possible/probable fructose intolerance and histamine hyperreactivity/DAO deficiency, or MQSS, achlorhydria
- Tx:
 - diet: low FODMAP (she didn't want to) or detox for 21 d without raw foods and histaminergic foods and low animal protein. Eat slow, drink lemon balm-golden seal and nettle teas; ACV 15' before meals.
 - vipassana and square breath, acupuncture, moxibustion. Check meds for excipients.
 - Vit A supplements, probiotics, Zn, plant digestive enzymes

Josefine (constipation, indigestion, insomnia, joint pains)

- EKG, US, BT with autoi markers ok
- Dx: Yin deficiency, SIBO-methane
- Tx:
 - Low FODMAP 3w, liquid plant-based dinners, seaweed, butters,
 - 400mg Mg citrate/night, omega 7, infla-heal (enz), 40mcg Cr, diuretic herbs (ulmaria, artichoke, dandelion, black currant, linden), probiotics
 - acupuncture, foot/ear reflexology, abd massage, movement/ph exercise.

Ana (fatigue, tiredness, depression)

- Tests: BT with low HDL, hypoproteinemia, low Hb, low Fe, low vitB12, low Vit D, tumor markers neg, normal thyroid and hormonal pannel. Chest XR ok, abd CT scan/US: Liver cysts and hemangioma
- Dx: Blood deficiency and secondary stagnation, malnutrition, adrenal burnout
- Tx:
 - increase protein and fat intake,
 - pre/probiotics, liver detox 3w, melatonin
 - vD, L-glut, aid-inflam (Boswellia, turmeric, quercetin, bromelain) 3w
 - acupuncture, foot baths, kegel exercises, ensure sleep, deep breaths,
 - adaptogens, pollen, maca, probiotics 4 w

THANK-YOU

Register with the link below to receive access to:

- The presentation slides
- Probiotics guide
- Leaky Gut protocol
- The professional zone for practitioners to access educational and clinical research on herbs and nutraceuticals and tools and resources to help your practice.
- Competition: With your registration you will receive automatic entry to the draw, to win 2 formulas of your choice! Competition closes at midnight on 17th December 2022.

<https://www.newrootsherbal.eu/en/the-gut-feeling-register>

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