

# Mycotherapy: Medicinal Mushrooms in Thyroid Conditions

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- 1- Most Common Thyroid Conditions
- 2- Indications & Contraindications of most common Thyroid Nutraceuticals
- 3- Practical case studies



# Why?

fatigue

temperature

memory

mood

constipation

heart

weight

skin/hair

...

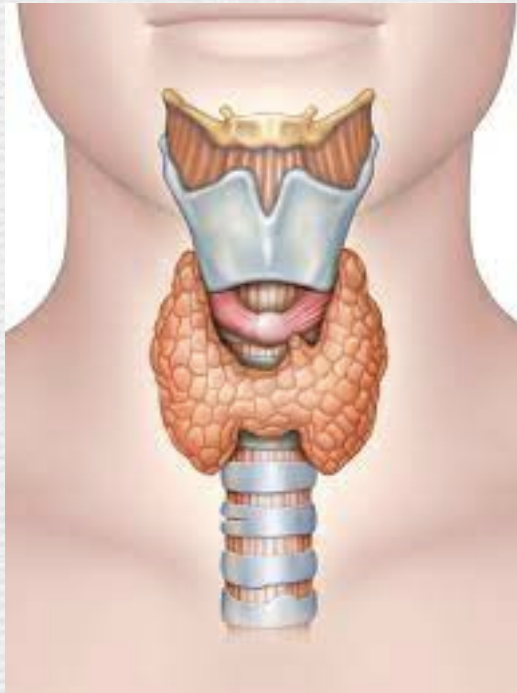
fertility

musculo-  
skeletal

Thyroid conditions  
Adrenal Fatigue  
CFS  
Celiac Disease  
Anemia  
Nutritional deficiencies  
Chronic Infections  
Lyme Disease  
Chronic inflammation  
Stress  
Heavy metal intoxication  
...



# Thyroid



Thermoregulation  
Metabolism-Energy production  
Growth & Fertility

TSH 0'2-2 U/L  
fT4 0'8-1'8ng/dL

fT3 130-450pg/dL  
rT3 10-24ng/dL

I 150-250mcg/L  
Se 120-200mcg/L  
Zn 50-130mcg/L

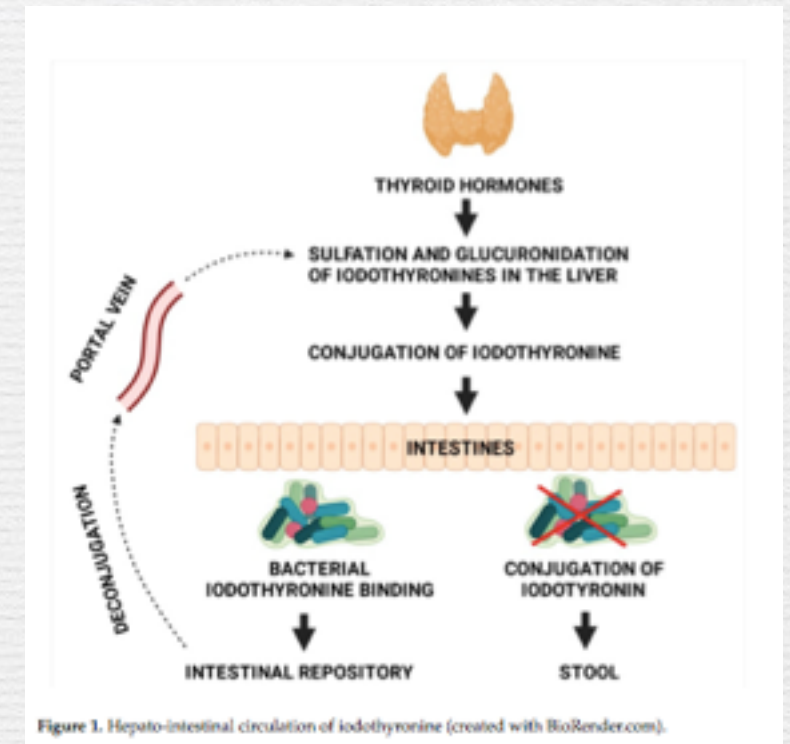


Figure 1. Hepato-intestinal circulation of iodothyronine (created with BioRender.com).

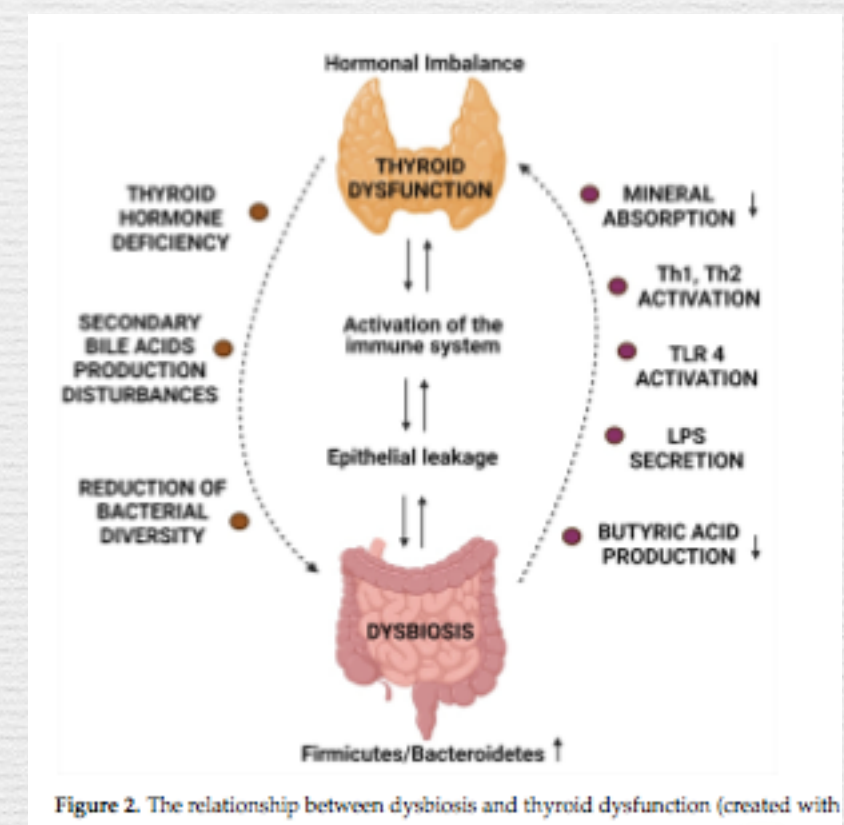
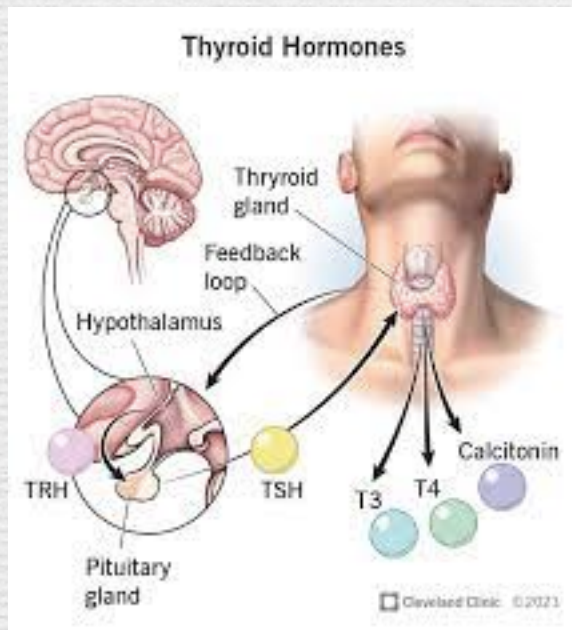
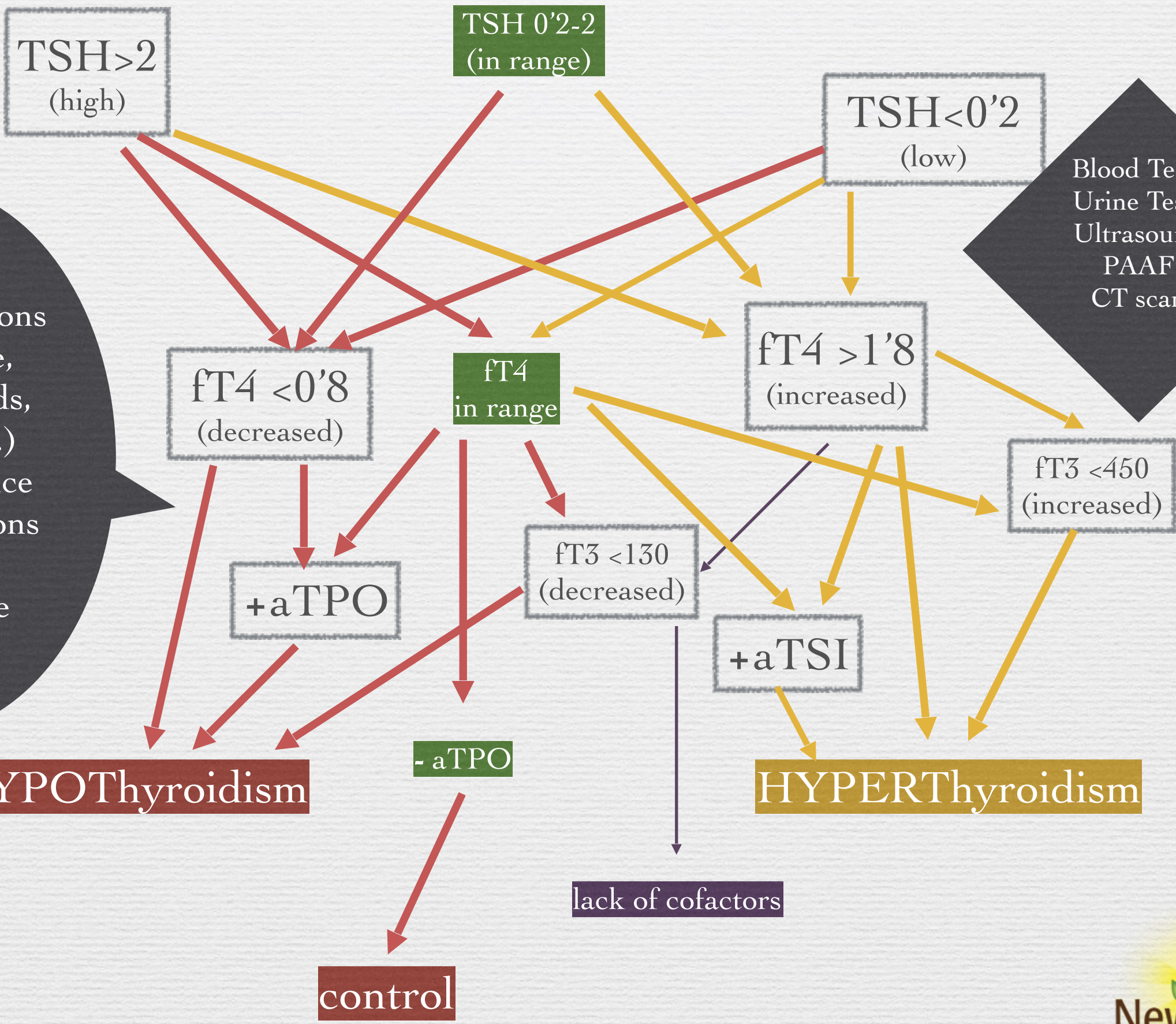


Figure 2. The relationship between dysbiosis and thyroid dysfunction (created with BioRender.com).





Drug interactions  
(amiodarone,  
glucocorticoids,  
dopamine....)  
Drug resistance  
Diet interactions  
Central  
AutoImmune



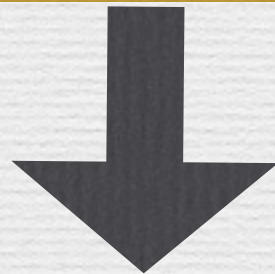
Blood Tests  
Urine Tests  
Ultrasound  
PAAF  
CT scan



# Thyroid Conditions

## Hashimoto's

slow metabolism  
weight gain, fluid retention  
constipation  
cold, pale  
heavy menses, infertility  
dryness, lack of sweat  
depression, apathy, lethargy  
tendinitis  
inflammation



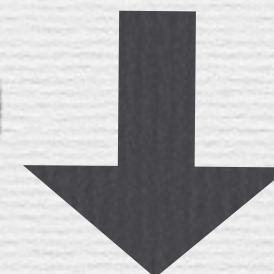
Hormonal supplementation (T4/T3)  
diet

DD:  
Toxic  
adenoma  
Plummer's  
disease

## Graves' Disease

fast metabolism  
low weight  
loose BM  
heat/sweaty  
irritability, insomnia  
edema  
inflammation  
tachicardia  
exophthalmos

...



Radioactive Iodine

DD:  
Lymphoma  
Lithium, IF  
I deficiency  
Nodules



# Hashimoto's

Thyroid gland inflammation

Elevation of TSH

Decrease in hormone production

Inmune alteration  
+  
Inmune stimulation (AG)  
+  
Gut Permeability

Genes

Inflammation  
Toxins

Leaky gut  
(intolerances, drugs, Sx,  
infections, allergies...)

Heavy metals (Hg)  
Dioxines  
Phthalates  
Gluten  
BPA  
Autoimmunity  
Excess I/ Low Se

EVB  
CMV  
HSV  
CHV  
Candida  
Toxoplasma  
Borrelia  
...



# Treatment

Vitamin D

Se

Zn

L-tir

Omegas

Vitamin C

MMs

Other Nutritional deficiencies?

Vitamin B  
complex  
Fe, I...

IR Sauna

Diet

Resistance  
Increase CR rate  
Increase  
temperature

Ph Exercise

Mindfulness  
Reiki  
Massage  
CBT  
TCM  
CBD  
Meditation  
Exercise  
Dance

Stress-release

Emotional

Throat Chakra  
Communication  
Voice Therapy  
Family Constellations

antiinflammatory  
low carb  
alkaline  
gluten free  
soy-free  
non-tox (eco)  
whole  
plant-based  
rich in essential fats  
rich in electrolytes: seawater  
rich in fiber  
limit raw cruciferous  
rich in mushrooms



# 1st) Thyroid Hormone Production (thyroid+ immunity)



# 2nd) Gut-Thyroid Axis



# 3rd) Symptoms





# Treat Underlying Cause

## Leaky Gut Protocol

L-Glutamine  
Tau  
Omega 7  
Pre & Probiotics  
Lion's Mane

## Chelation

Zeoline  
Activated charcoal  
Gluthathion  
EDTA  
Microalgae  
IR Sauna, steam room  
MMS  
Diet/Cooking methods  
Colon hydrothx

## Antimicrobials

MMS  
Vitamin C  
Echinacea  
Wild Oregano

## Antioxidants

Vitamin C  
Vitamin A  
Vitamin E  
Quercetin  
MMS  
weight loss

## Treat Symptoms

Psyllium, clay, enemas  
Maca  
Ashwagandha  
Diet  
TCM



2x500mg every 8h



**Indications:**  
NeuroCognitive  
Gut Support  
Immune-modulator  
Antimicrobial (H.pylori)

Dementias  
MS  
Neuropathies  
Menopause  
PD

## Lion's Mane

HEDGEHOG MUSHROOM  
(HERICIUM ERINACEUS)

### ContraIndications:

Psychosis  
Asthma  
Hyperthy

anti-oxidative  
anti-inflammatory  
anti-cancer  
anti-tumor  
anti-neuroinflammatory  
neuroprotective  
immunostimulant  
antidiabetic  
antimicrobial  
hypolipidemic  
antihyperglycemic







1'5-3g/d (extract) or 3-6g/d (spore powder)

Indications:

Energy&Stress: anxiety, insomnia, longevity  
Anti-tumor/cancer (horm-dep)  
Allergies, anti-infl, autoi

Antiaging  
Cancer  
Respiratory probs  
Metabolic Sd  
Immune reactions

Reishi

Spirit mushroom  
(Ganoderma lucidum)

Contraindications:

anticoagulated, BP, or sedatives. Caution in "excess" syndromes

anti-cancer  
anti-tumor  
anti-diabetic  
anti-aging  
anti-microbial  
anti-bacterial  
anti-viral  
anti-metastatic  
anti-inflammatory  
anti-hyperlipidaemic  
anti-mutagenic  
anti-hypertensive  
anti-oxidant  
anti-allergic (anti-His)  
anti-ulcer  
hypo-glycemic  
immunomodulatory  
immunostimulating  
cytotoxic  
respiratory  
cardiotonic  
analgesic  
adrenocortical





3-50g/d (mycelium)



## CORDYCEPS

Caterpillar fungus  
(PAECILOMYCES HEPIALI)

### Indications:

Energy & resistance (stamina):  
CFS, Adrenal Fatigue  
Libido & sexual function: fertility  
Immune system: Respiratory,  
Chronic viral inf, AntiCancer

### Caution:

Horm-dep tumors/  
conditions

convalescence  
antiaging  
asthma  
urinary



immunostimulant  
immunomodulator  
adaptogen  
anti-oxidant  
anti-inflammatory  
anti-tumor  
anti-thrombogenic  
anti-hyperglycemic  
anti-apoptosis  
nephroprotective  
hepatoprotective  
bronchodilator  
sedative  
MAO inhibition  
antibacterial



# Beatriz

- Female, 39yo, 162cm, 75kg
- Fatigue since 5y ago, worse in Winter, with joint pain
- Other complaints: general muscle tension, diarr-constip, flatulence, intolerance/fear to many foods, migraines, dizziness, palpitations, low BP, PMS, heavy clotted periods
- Fam Hx: RA (mother)
- Allergies: lactose, gluten, peanut, Iodine, shelfish
- Sx Hx: uterine polyps (2007)
- Med Hx:
  - Hashimoto since childbirth (3y ago): *Levotiroxine* 50mg/d
  - POS
  - IBS
  - IVF

- Tests: Microbiome, Blood, Breath (did not); TSH 6 (sustained)
- Tx:
  - Diet: 10 days detox diet, then antiinflammatory with quantity reduction & low-carb. Increased pre & probiotics
  - Leaky Gut: L-glut 3mo, Lion's Mane 3g/d 45d; 50mcg Zn/d, 400mg Mg/d, IBS Urgency, Infla-heal,
  - Vit D3 1000mU/d, 100mcg Se/d
  - CBD, Acupuncture-Moxibustion, NLP
  - PT with brother



# Dominique

- Female, 48 yo, 162cm, 70kg
- Anxiety and SNS problems related to her uncontrollable Hashimotos' since 2y ago
- Other: constant polyarthralgias, chronic fatigue, mood disorders-irritability-apathy, severe PMS, painful heavy menses, constipation and haemorrhoids, miotic failure, feeling of bloating and "inflammation", dry skin, frontal headaches, nightmares and insomnia, reflux...
- Fam Hx: MS, Psoriasis, AITD, linfoma, cancer
- Allergies: gluten, dairy, orange
- Sx Hx: apendicectomy 2002, hemorrhoids 2001
- Med Hx:  
Hashimotos' hypothyroidism (2013): *Levothyroxine 100mg/d*  
IBS (2000) and chronic constip: *Macrogol 4000 2/d*  
Escoliosis  
Chronic Anemia: *EPA, DHA, vE, vD3 4000/d, vK2, Mg 400mg/d*  
Anal fisures and hemorrhoids  
Chronic gastritis: *Pantoprazol, Neobianacib*  
Anxiety and depression: *Venlafaxine retard 75mg, Mirtazapine 15mg, Trankimazin 0'75ml*

## - Tests:

Breath Test -

Gastroscopy: erosive gastritis

Microbiome: Giardia, Bacteroidetes, Entamoeba

TSH ('18-22)': 1'6, 2'3, 5'5, 10, 0'4, 6'2, 4'8

Low Fe, Hb, Ferritine, Transferrine consistently

Low vB12, low vD

## - Tx:

Leaky Gut, Dysbiosis, Malabs

1g Lion's Mane/8h

IBS Urgency

1g vC/8h

50mg Zn/24h

Se-Met

Acupuncture

IRS

Resistance Exercise

Voice work



# Avelino

- Male, 67yo, 172cm, 108kg (31/5/22)
- Weight management (forever)
- Other: headaches, general aches, sleep disturbances, constipation, fatigue, vitiligo, stiffness, “lazy”
- Fam Hx: obesity, Ht
- Allergies: none
- Sx Hx: tonsilectomy (9yo)
- Med Hx:
  - Post-covid stroke
  - Sleep apnea: CPAP
  - HBP: Crestor 5mg, Bisoprolol, Ramipril
  - Borderline DM2

-Tests: TSH 5'5, fT4 0'4, Hb 12, vB12 91; transferrine 205, AB aGliadin/aIF/aATPase +...

-Tx:

Gluten-free detox diet

Lion's Mane 1g/8h

Cordyceps 3g/24h

Active folate 1000mcg/24h

Physical exercise (20'/d)

Vipassana Meditation

Acupuncture & Moxibust (K

YangQiXu)

— > 15/11/22: **87kg**, TSH 2'5-3, vB12 647, Hb15



# Further reading...



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# THANK-YOU

Register with the link below to receive access to:

- The recording
- The presentation slides
- Nutraceuticals in Thyroid Conditions – practitioner guide
- Detox-programme
- 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.

<https://www.newrootsherbal.eu/en/mycotherapy-in-thyroid-conditions-register>

Contact:

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THANK YOU