

Hormone health and why the gut is the foundation

By Natasha Richardson

First we treat the gut

The gut is now recognized as the largest endocrine (hormone-producing) organ in the body, producing more than 30 different hormones that regulate not just digestion, but also metabolism, appetite, mood, and even reproductive health

In 2020 the Hubrecht Institute and Utrecht University generated an in-depth description of the human hormone-producing cells of the gut by recreating intestinal cells in their labs.

We now know that enteroendocrine cells, make up only about 1% of the intestinal lining but are responsible for secreting dozens of hormones that impact everything from blood sugar to appetite and bowel movement

Without gut health, it's not possible to have good hormone health. Which really goes back to the old herbalist adage, first, the gut.

The gut and our hormones

It's where we make:

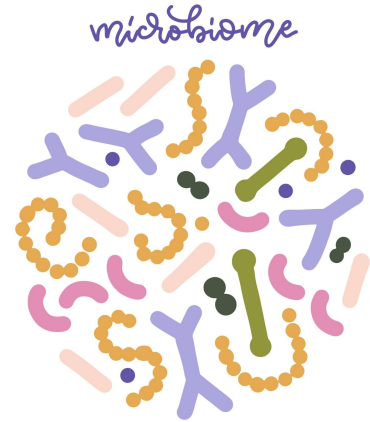
90% of our serotonin (**Streptococcus, Enterococcus, Escherichia, Lactobacillus, Klebsiella, and Morganella**)

Allopregnanolone, a derivative of progesterone (**Eggerthella lenta and Gordonibacter pamelaeae**)

Most of our oestrogen is metabolised in the gut through aromatisation

About 20% of the inactive T4 hormone is converted to the active T3 form in gut

Testosterone and its metabolites are excreted into the gut via bile. Higher levels of certain bacteria (like **Firmicutes and Ruminococcus**) are associated with higher testosterone.



The gut and our hormones

Home testing

We now have the ability to quite easily test gut bacteria with at-home testing. Probably good to test at correct time of cycle though. Luteal may be best if trying to find the cause of a menstrual problem (Krog et.al., 2022).

More research linking gut microbiome to women's health

Gut dysbiosis, and poor microbiome health is associated with a huge range of hormonal conditions such as; postpartum depression, endometriosis, PCOS, infertility, and menopause symptoms.



Burdock (gut healer and insulin improver)

Gardening tips: Biennial, hard to grow, harvest when you see it / forage if you permission

Names: *Arctium lappa*, Beggars button

Constituents: *Inulin*, Fructooligosaccharides, chlorogenic acid, polyphenols, lignans, sesquiterpenes, tannin, *mucilage*, iron, sulphur, B-vits.

Actions: Bitter, hypolipidemic, hypoglycaemic, anti-inflammatory, antioxidant, hepatic, lymphatic, diaphoretic, diuretic, laxative, orexigenic.

Uses: Hyperglycaemia, Diabetes, Fatty liver, *Staphylococcus*, Cystitis, Gout, Arthritis, Rheumatism, Acne, Eczema, Psoriasis, Eczema.

Preparations: Tincture, decoctions, glycerite.



PCOS + the gut

Insulin resistance is key to treating PCOS.

It's a form of pre-diabetes in most patients.

Insulin imbalance leads to androgen excess.

Often complimented by the cortisol steal and low liver function. Leading to relative androgen excess.

We'd like more progesterone in PCOS, a derivative of it, pregnenolone, is made in the gut without which it's very hard to have balanced hormones (Bryce-Ytsma, 2024).

Burdock helps heal the gut lining, improve insulin resistance and mops up excess androgens too.



Calendula (Gut tonic)

Gardening tips: EASY to grow, spread seeds amongst veg or in pots - anywhere.

Names: *Calendula officinalis* (marigold), pot marigold, *Caltha officinalis*. Golds. Ruddes. Mary Gowles. Oculus Christi. Marygold. Fiore d'ogni mese. Solis Sponsa.

Constituents: Resins, carotenoids, essential oil, flavonoids, sterol, bitters, saponins, mucilage

Actions: Anti-bacterial, Tissue healer, Phytoestrogenic, Mild bitter, Anti-inflammatory,

Uses: Dysbiosis, Psoriasis, Eczema, Skin lesions, Mouth wash, Oestrogen balancing, Endometriosis, Fibroids, Adenomyosis, Cystic ovaries, Enteritis, Dysentery, Viral hepatitis, Pelvic and bowel infections, Regulates menstrual cycle, Heavy periods, Promotes birth contractions, Gastritis, Peptic ulcers,

Preparations: edible things, Macerated oil, Cream, Mouthwash, Balms, Dried herb infusions, Tinctures 25% 45%, Glycerite



Perimenopause + the gut

Phytoestrogens are brilliant at balancing oestrogen levels in perimenopause.

Calendula has no implications with oestrogen-hungry cancers, so safe to use (Bryce-Ytsma, 2020).

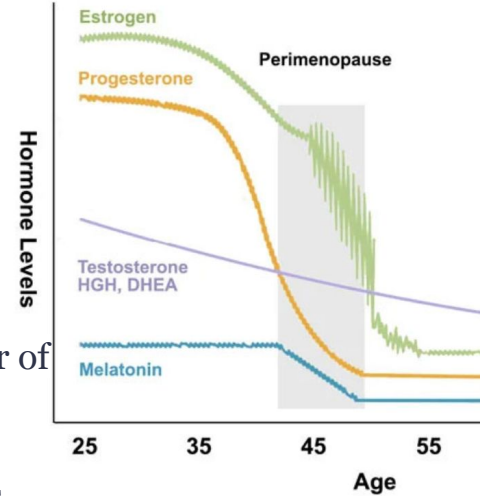
The Zoe company has discovered that **Lachnospiraceae species** is a good predictor of perimenopause symptoms. (Zoe.com, 2024)

Oestrogen and Progesterone feed good bacteria, their decrease increases gut dysbiosis.

Translocation of gut bacteria seems to happen more during perimenopause.

Having good microbiome diversity BEFORE perimenopause can improve the experience.

Calendula helps not only with balancing oestrogens but also in healing the gut wall and reducing translocation of gut bacteria.



Chamomile (prebiotic)

Gardening tips: Likes sunny, well drained spots.

Names: Chamomilla recutita, Wild Chamomile.

Constituents: Volatile oils, flavonoids, coumarins, plant acids, fatty acids, cynogenic glycosides, salicylate derivatives, choline, tannin

Actions: Carminative, Relaxant, Antispasmodic, Febrifuge, Pre-biotic, Anti-inflammatory

Uses: Calms digestion, IBS, Dysbiosis, Nervousness, Anxiety, Fevers, Eczema, Insomnia, Chickenpox, Crohns, Colitis, Diverticulitis, Period pain, Endometriosis, Vagal tonic

Preparations: edible things Dried or Fresh infusions, Tincture, Glycerine, Aromatic water

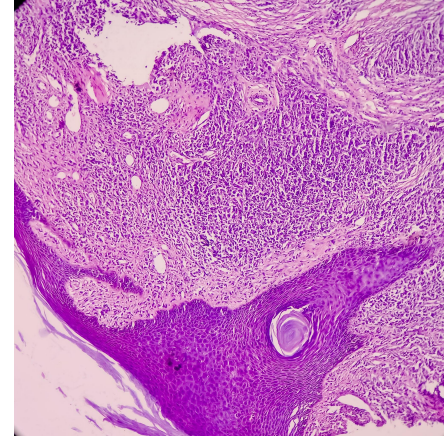


Endometriosis + the gut

Endometriosis has been linked to the gut recently.

1. One theory of its cause is an infection from **Fusobacterium**, treatable with antibiotics (Muraoka et.al., 2023)
2. Another theory is that this bacteria (or poor gut diversity) leads to SIBO, then dysbiosis, then chronic inflammation (Khan et.al., 2018)
3. Another is that inflammation from foods leads to this disruption of bacteria, leading to endo lesions.

Chamomile is a prebiotic, helping to feed good gut bacteria. It's also anti-inflammatory. It may be helpful to do a course of herbal antibiotics like juniper, thyme, oregano, to compliment initial month of treatment of Endo.



Vinegar - gut healing menstruum

Increases *Akkermansia*, *Hungatella*, *Aluipes*

Decreases *Firmicutes*, *Lachnospiraceae*, *Oscillibacter*

Improves inflammation and immunoregulation (Xia et.al., 2024)

Contains antimicrobial and antioxidant polyphenols and lowers low density lipoprotein and high density lipoproteins, improving weight loss (Alexandria, 2019)

Shown to reduce GI of food by up to 30% when taking 1tbsp before a meal.

Vinegar has been shown to be of use in chronic inflammation such as fibromyalgia, endometriosis, reducing cholesterol, improving weight loss, PCOS, and other gut health problems like ulcerative colitis.



Gut Health Tips

Not chewing food enough - chew more, eat mindfully

Not enough bile affecting how we breakdown food - more bitters

Gut motility - relaxants improve absorption and decrease constipation

Low diversity of plant foods - aim for 30 in a week

Fermented foods - kefir, kombucha, kimchi, sauerkraut,

Recipe

Garlic Oxymel by the late Dr. John Christopher

1. Measure 250ml vinegar into a glass jar
2. Add 7g caraway seeds and 7g fennel seeds
3. Boil and simmer for 15min
4. Remove from heat and add 45g of fresh pressed garlic
5. Let this sit till cool
6. Press and strain the liquid
7. Add 300g of honey
8. Place onto a low heat and simmer till dissolved
9. Bottle up into sterile jar