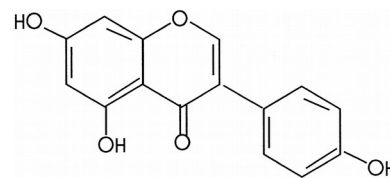


Herbal Therapies in Transgender Support

The function of hormones in plants and humans

Plants, like humans, use chemical signals (hormones) in the process of facilitating communication throughout the organism to exert effects on specific tissues to enable one to best thrive in the environment in which they are rooted. Plants produce an array of volatile organic compounds (VOCs) which have multiple functions as internal plant hormones, in communication with other plants and in communication with specific herbivores and their predators.



This phytohormonal communication greatly improves the adaptive behavior of plants including rapid changes in physiology, gene regulation and defense response. An adaptive hormonal signaling mechanism is vital component of a healthy ecosystem and is the same process used in human bodies to respond and adapt to stimuli in our environment.

The human body possesses a core of glands which secrete hormones to control many bodily activities. These glands are called the *endocrine system* and are largely regulated by the hypothalamus. This *master gland* directs the production of steroid hormones (including estrogen, progesterone and testosterone) which are synthesized from cholesterol in the gonads and adrenal glands. All three of these hormones are present in all people in varying levels (depending on sex at birth, diet, lifestyle, medication and stress levels.)

Phytohormones in (Femme Focused) Gender Transition

An increase in these hormone levels can activate target cells to express secondary sexual characteristics such as smooth, soft skin and breast development. The basis of transgender hormone therapy is the activation of these responsive target cells to cultivate the desired effects. Nutrient rich foods and herbal remedies can also exert a direct hormonal effect on the target cells of receptive tissues and organs. The use of nutritional and herbal therapies can be a complimentary or alternative practice to transgender hormone replacement therapy (HRT.)



Many plants are known to contain phytoestrogens (chemicals with estrogen like activity.) Endogenous hormones work by attaching to specific receptor sites throughout the body. Phytohormones work in the same manner, by attaching to these sites. Because phytoestrogens in plants can be significantly weaker than biological estrogen, creating a regimen consisting of various forms of phytoestrogen can be useful. Herbs tend to work best in combination or synergistic formulas as opposed to simples or concentrated extracts of a singular herb. However, it is important to keep dosage and balance in mind so as not to overburden or stress the body.

Progesterones are also an important, and often overlooked, component of HRT for trans women. Plants that promote progesterone production in the body (notably Vitex and Black Cohosh) can aid in the development of breast tissue (especially with topical applicaiton) and reduction of fluctuation in hormone levels.

As we are all unique beings with a wide range of influences and spectrum of expressions, herbs will react differently to each individual and it may take time to come up with the best combination of herbs. Sourcing high quality, organic and ethically grown plants is of great importance when receiving the medicinal gifts that plant have to offer.

Phytohormones in Herbs and Food

Phytoestrogens bind to estrogen receptor sites in the body and are found in over 300 species of herbs and a wide variety of foods (most notably legumes.) Contain genistein, lignans and isoflavones. **Phytoprogestones** help maintain hormone levels with less fluctuation and can increase breast tissue with topical use. Vitex, Saw Palmetto and Chinese Skullcap are **Testosterone Production Blockers**. **Androgen receptor blockers** include Spearmint and Licorice. Grapefruit is a noted **estrogen removal blocker** that can support breast growth when taken concurrently with phyto or pharmaceutical estrogens.

Feminizing herbs include (higher levels of phytoestrogens noted in bold):

- Wild Yam
- Black Cohosh
- Partridgeberry
- Fenugreek
- Dong Quai
- **Red Clover**
- Kudzu
- Alfalfa
- Vitex
- Saw Palmetto
- Spearmint
- Chinese Skullcap
- Raspberry Leaf
- Nettle
- Comfrey
- Bee Pollen
- Marjoram
- Fenugreek
- **Fennel**
- **Hops**
- Anise
- Sage
- Shatavari
- Licorice

Estrogenic (increase estrogen and progesterone) **foods** include:

- yellow lentils
- red lentils
- black beans
- lima beans
- anasazi beans
- kidney beans
- black eyed peas
- mung beans
- soy beans
- tofu
- yams
- apples
- carrots
- pomegranates
- grapefruit juice
- flax/linseeds
- sesame seeds
- wheat berries
- wheat germ
- oats
- barley
- rice and rice bran

Androgenic herbs bind to testosterone receptors in the body. **Phytoprogestones** support a process of masculinization (as with a therapeutic focus on feminization) to maintain steroidal hormone levels with less fluctuation. **Steroidal saponins** are plant based steroid precursors that are not actively anabolic themselves, but rather are building blocks to endogenous anabolic steroid production. These include: Wild Yam, Sarsaparilla, Damiana, Yucca, Ginseng, Saw Palmetto.

Masculineizing herbs include (estrogen blockers noted in bold):

- Sarsaparilla
- Damiana
- Ashwagandha
- Ginseng
- Tribulus
- Wild Oats
- Rosemary
- Ho Shou Wu
- Plantain
- White Sage
- Sassafras
- Ginger
- Star Anise
- **Maca**
- Pine Pollen
- Prickly Ash
- Yohimbe
- Epimedium (Horny Goat Weed)
- Eleuthero
- Astragalus
- Kola Nut
- **Nettle Root**
- **Passionflower**

Androgenic foods (increase testosterone and progesterone) include (estrogen lowering foods, via breakdown and elimination of estrogen from the body, noted in bold):

- celery
- cucumber
- corn
- kale
- radishes
- garlic
- parsley
- thyme
- oats
- pine nuts
- red meat
- oysters
- basil
- pumpkin seeds
- spirulina
- pomegranate juice
- **red wine**
- **grapes**
- **mushrooms**
- **olive oil** (converts cholesterol into testosterone)
- **cruciferous vegetables**
- **chia seeds**
- **green tea**

References and Resources:

- *TransNatural*, Kara Sigler, Webinar, American Herbalists Guild, July 2016
- *Transgender Health Protocols*, Tom Waddell Health Center, June 2011
- *Holistic Health for Transgender and Gender Variient Folks*, Dori Midnight, March 2014, <http://www.sfherbalist.com/holistic-health-for-transgender-gender-variant-folks/>
- *Natural Transition: Can herbal hormone therapy help the transgender community?*, Lewis Wallace, The Outline, November 2017, <https://theoutline.com/post/2494/can-herbal-hormone-therapy-help-the-transgender-community?zd=1&zi=4hqsezcq>
- *The pros and cons of phytoestrogens*, Patisaul and Jefferson, NCSU Dept of Biology, October 2010
- *Trans Competent Care for the Integrative Practitioner*, Alanna Whitney, Colorado School of Clinical Herbalism, Fall/Winter 2014