**Mitigating Negative Effects of Synthetic Hormones-**

Support organs of elimination- skin, colon, lungs

Support organs of metabolism and methylation- Liver and Kidneys

Support long term effects on organ systems

* testosterone affects CardioVascular system, PCOS repro/lymph system stagnation, hair follicles, fibroids, cycs, acne
* estrogen affects increased risk of cancers, osteoporosis
* testosterone blockers often diuretic- block aldosterone, unbalance electrolytes, hydrate! with herbs, salt, oils

Support over all health- adrenals, stress, metabolism

**Self-care**

Maintain immunity, lymph flow, hydration with electrolytes and good oils, building blocks for healthy hormone production with raw oils and fats

* Injection wound site hygiene
* Abdominal and Groin Massage, lymph scrubs, dry brushing
* Hydration: electrolyte salts, oils, mucilaginous herbs, seaweed
* Support digestion with bitters, aromatics, demulcents
* Inspire regular gynecological check ups, blood work for hormone levels

**Herbal Actions for Overall Health**

**Adaptogens-**

* Being under constant stress creates more adrenaline and cortisol, therefore suppressing androgen production and disrupting endocrine function
* Important to nourish the kidneys and adrenals, which produce 90% of all testosterone in the body.

**Nervines-** relax the nervous system to allow greater health overall and better endocrine functioning

**Alteratives-** cleanse the blood and increase pathways of elimination without decreasing effectiveness of synthetic hormones

**Lymphatics-** increase circulation in chest and pelvis, improve immunity

**Hepatics-** metabolize testosterone and other steroidal hormones

**Bitters-** flavor increases digestive secretions, absorption and elimination

**Aromatics-** carminatives increase pancreatic enzymes, antimicrobial

**Demulcents-** mucilaginous to coat and protect mucous membranes found in all body cavities; increase elimination gently, hydrate

**Steroid Hormones in the human body-**

* derived from cholesterol- a lipid based sterol
* include sex steroids- estradiol, estriol, estrone, progesterone, testosterone, androstenediol, DHT, DHEA
* glucocorticoids- cortisol, prednisone, hydrocortisone
* mineralocorticoids- aldosterone

**Androgens-** have two primary effects

* *Anabolic*- result in stimulation of muscle and bone growth as well as metabolic changes
* *Androgenic*- produce typical male secondary sex characteristics

**Estrogens-**

* include estriol, estrone, estradiol
* produce typical female secondary sex characteristics

**Progesterones-**

* can balance other sex hormones, greasy and stabilizing
* increase breast growth topically
* Phytoprogesteronic herbs: Vitex, Placenta, Wild Yam

**SHBG-**

* Sex Hormone Binding Globulin
* Binds the majority of blood androgens
* Androgens bound to SHBG are neither bioavailable to exert androgenic or anabolic effects, nor vulnerable to metabolism
* Cis-gendered women (non-transgendered women) tend to have twice the circulating levels of SHBG then cis-gendered men. This means free androgen levels are lower, but hormones have a longer half life
* Cis-gendered men (non-transgendered men) tend to have lower levels of SHBG, thus more free androgens circulating in the blood which is bioavailable, although metabolism and destruction occur more rapidly

(Midnight)

**FEMINIZING HERBS**

**Hormone blockers-**

**testosterone production blockers-**

* vitex, saw palmetto, chinese skullcap

**androgen receptor blockers**

* spearmint, licorice

**estrogen removal blockers-**

* helps breast growth
* grapefruit juice

**Plant based hormone-analogues**

**Phytoestrogens**- Over 300 plants with phytoestrogenic compounds

* contain genistein, lignans and isoflavones. Bind to estrogen receptor cites in the body thus act like estrogens but gentler action
* Protect the body from XENO-estrogens and excess ENDOGENOUS-estrogen
* increase SHBG levels which binds to free estrogens, protecting the body from excess estrogens
* decrease Aromatase enzyme- prevents testosterone from turning into estrogens; maintains more testosterone in the body
* promote C-2 pathway of elimination
* Black Cohosh, Fenugreek, Red Clover, Kudzu, Alfalfa, Chinese Skullcap, Nettle, Comfrey, Bee Pollen, Marjoram, Fenugreek, Fennel, Hops, Anise, Sage, Cannabis

(Prescription for Nutritional Healing)

**Phyto-progesterones-** help maintain hormone levels with less fluctuation. Increase breast tissue topically.

**Moon connection**/ **cycles and rhythms**- mugwort, nettle, raspberry leaf, pennyroyal, yarrow, motherwort

**Estrogenic foods:**

* All Legumes contain genistein, lignans and isoflavones-
* yellow and 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 (James Duke)

**Plants that are known as “Feminine/Yin”** (do not contain phyto-hormones)

* Dong Qui, Shatavari, Ginseng, Partridge Berry, Raspberry leaf

**MASCULINIZING HERBS**

By increasing progesterone & testosterone naturally- you can increase masculine characterstics, including hair growth, lower voice, muscle build, but can’t stop manstruation.

**Plant based hormone-analogues**

**Steroidal-saponins-** plant steroid precursors

 Not actively anabolic themselves, building blocks

**Phyto-androgens**- androgenic anabolic hormones; bind to testosterone receptors in the body.

**Phyto-testosterone**- identical molecularly to human testosterone

**Stimulate T production** in the body

**Phyto-progesterones-** help maintain hormone levels with less fluctuation.

**Hormone blockers-**

**estrogen blockers-**

* nettle root and leaf, maca, Chrysin- flavonoid found in passionflower, honey, propolis

**Aromatase-Inhibitors-**

* Aromatase- enzyme that under normal circumstances converts testosterone into estrogens
* inhibitors allow Testosterone to stay in the blood stream; does not convert to estrogens
* selenium, melatonin, zinc
* grape seed, green tea
* citrus flavonones- orange and grapefruit RINDS, tomato skins

**Estrogen Elimination-**

* probiotics- prevent glucuronic acid from unbinding estrogens
* fiber and lignans
* magnesium- methylation to excrete
* C-2 pathway- breakdown and elimination of estrogens from the body in a healthy way- fish oil, phytoestrogens, B vit, cruciferous vegetables🡪 DIM compound

**Estrogen lowering foods-**

* red wine, grapes, mushrooms, olive oil (converts cholesterol into testosterone), cruciferous vegetables
* maca, chia seeds, oats, wild oats, green tea

**Androgenic foods-**

* increase progesterone and testosterone
* increase masculine secondary sex characteristics such as

~ hair growth, lower voice, build muscle, increase libido (won’t stop manstruation)

* Celery, cucumber, corn, kale, radishes, garlic, rosemary, parsley, thyme, oats, pine nuts, red meat (hormone free!), oysters, basil, pumpkin seeds, spirulina, pomegranate juice

**Androgenic Herbs:** Sarsaparilla, Damiana, Ashwaganda, Ginseng, Tribulus, Wild Oats, Rosemary, Ho Shou Wu, Plantain, Gallium “ball builder”, White Sage, Sassafras, Ginger, Star Anise, Garlic, Pine Pollen, Prickly Ash, Yohimbe, Horny Goat Weed, Eleuthero, Astragalus, Kola Nut, Nettle root

**Transmasculine spectrum Avoid-**

* Beer- german beer purity act 1516, Hops
* Soy
* Plastic use, especially with food
* Xeno-estrogens- endocrine disruption, mimic estrogens with more toxicity, cause testosterone to convert to estradiol, interfere with production of testosterone by binding free, cancer causing

**Bibliography**

**Trans Specific Resources**

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**Transgendered Clinics in San Francisco Bay Area**

Tom Waddell Health Center, SF

Kaiser Permanente, Oakland

Lyon Martin Health Clinic, SF

Trans-Thrive, SF

St. James Infirmary, SF

UCSF Center of Excellence for Transgender Health