

## Holistic Health for Transgender & Gender Variant Folks

### Introduction

This paper will cover basic herbal and nutritional support for transgender and gender variant folks specifically on the transmasculine spectrum. Historically, transpeoples' access to health care is limited for multiple reasons and information regarding the long term side effects of hormone therapy is miniscule, so it is profound to be able to support the health and well being of transgender folks with herbs and nutrition, which tends to be more accessible and affordable.

Many transpeoples' experience with the medical community has been negative- from the complicated diagnoses of Gender Dysphoria to the extreme medicalization of gender to humiliating and horrifying exams, it is easy to see why many trans folks choose not to engage with health care system at all. As herbalists, we are in the unique position of offering holistic care and education to individuals in a manner that honors the whole person.

So then, this is not exactly a traditional pathology paper, which would indicate that we are dealing with a disease that needs treatment; it is my opinion that trans people are challenging us all to re-examine our assumptions about gender and live more authentically and that the disease to be treated lies in society.

This paper will look at some health needs specific to transgender folks and offer accessible, practical, and herbal recommendations for healing and support. Because this is such a huge topic, this paper will cover people on the transmasculine spectrum (taking or not taking testosterone).

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### OUTLINE:

- Overview: definitions & medical treatment**
- Holistic support for Surgery**
- Endocrinology Basics**
- Hormone Replacement Therapy: herbs for support (male spectrum)**
- Emotional/Spiritual Support**
- Resources & bibliography**

## OVERVIEW

Gender identity is a complicated topic and I won't attempt to unravel it all here. I will present some information for practitioners specifically with the intent of helping people serve transgender patients with respect and understanding, which means being aware of language and word choices.

One definition of transgender is: "individuals, behaviors, and groups involving tendencies that diverge from the normative gender role (woman or man) commonly, but not always, assigned at birth, as well as the role traditionally held by society."

"A transgender individual may have characteristics that are normally associated with a particular gender, identify elsewhere on the traditional gender continuum, or exist outside of it as "other," "agender," "Genderqueer," or "third gender".

The term transgender (TG) was popularised in the 1970s (but implied describing people who wanted to live cross-gender without sex reassignment surgery.) In the 1980s the term was expanded to an umbrella term, and became popular as a means of uniting all those whose gender identity did not mesh with their gender assigned at birth. In the 1990s, the term took on a political dimension as an alliance covering all who have at some point not conformed to gender norms, and the term became used to question the validity of those norms or pursue equal rights and anti-discrimination legislation, leading to its widespread usage in the media, academic world and law. The term continues to evolve."

The extent to which intersex people (those with ambiguous genitalia or other physical sexual characteristics) are transgender is debated, since not all intersex people disagree with their gender assigned at birth. The current definitions of transgender include all transsexual people, although this has been criticized.

The term transman refers to female-to-male (FtM or F2M) transgender people, and transwoman refers to male-to-female (MtF or M2F) transgender people, although some transgender people identify only slightly with the gender not assigned at birth. There is a school of thought that says terms such as "FtM" and "MtF" are subjugating language that reinforces the binary gender stereotype."

- Consider adding to your intake form, rather than asking your client to check M or F, leave room for multiple gender expressions by writing Gender \_\_ (blank)\_\_. Your intake form might also ask for the person's pronoun preference, so you don't assume how they identify. Some common pronouns used are: zi or they.

## MEDICAL TREATMENT

If you are working with a transgender or gender variant person, do not assume that they necessarily want to address this with you or that this is the main issue, they may indeed just be interested in getting general herbal/health support!

### Mental healthcare

Often, therapy is recommended for all people who are working/playing with their gender, especially if they desire to transition, as usually a diagnosis is required to access the medical care desired.

## Physical healthcare

Medical and surgical procedures exist for transsexual and some transgender people.

### Surgery

female spectrum: surgical changes to face, body, adam's apple, breasts, waist, buttocks and genitals. Orchiectomy-testes, Penectomy, Vaginoplasty

male spectrum: top surgery (chest-Keyhole, Periaareolar, Double incision), bottom surgery (genitals) and partial or entire hysterectomy.

### Hormone replacement therapy

Testosterone: hair growth, rougher skin, lowers voice and changes fat distribution.

Estrogen: skin, voice, lessens hair growth, changes fat distribution and develops breasts.

**Sex reassignment therapy (SRT)** is used as an umbrella term for physical procedures required for transition. Availability of these procedures depends on degree of diagnosed gender dysphoria and standards of care in the relevant jurisdiction.

## HOLISTIC SUPPORT FOR SURGERY

Most people have a lot of anxiety about surgery, even if it is elective. Creating a plan a month before can really help both emotionally and physically.

Having a surgery team is especially helpful- friends and family willing to help with food and daily tasks, bring entertainment over, etc..

The following is a suggested protocol for surgery in general:

### PRE-OP:

- Start herbal regime up to 1 month before surgery
- Stop most herbs 2-3 days before surgery to insure no interactions with drugs (mostly to appease your physician/surgeon, since they most likely know little about herbs)
- Stop herbs and supplements with salicylates that effect platelet function (bloodthinning) 1 week before through 2 days after surgery to avoid increased risk of bleeding; these include: Aspirin, Alcohol, Vitamin E oil, Evening Primrose oil, Red Clover Hawthorn, Garlic, Ginkgo, Feverfew, Willow, Meadowsweet, St. John's Wort (not an exhaustive list)

### NUTRITIONAL SUPPORT

- 1) eat a clean, simple, whole foods diet, preferably organic. See food suggestions below.

- 2) Avoid Alcohol-at least one week prior- inhibits tissue regrowth and may cause extended bleeding
- 3) Increase B vitamins- helps deal with stress
- 4) AntiOxidants- support the immune system, decrease inflammation, and speed healing- antioxidants are found in the rainbow of fruits and vegetables with red, blue, yellow, purple, and orange pigments.
- 5) Vitamin C- (ascorbic acid) assists the body in the production of collagen, a basic component of connective tissues that aids wound healing and bruising. It also helps the body's immune system and is thought to be the safest anti-viral. It is used intravenously during surgery in Europe.  
DOSE: 1000-2000mg 3-6x/day week before and week after surgery to BOWEL TOLERANCE. Third week titrate to 500mg 3x/day. Best buffered or time-released.
- 6) Probiotics- important to replenish gut bacteria and flora after surgery, especially if taking antibiotics, may halt yeast infections and bowel irritability: acidophilus and bifidus, yogurt, fermented foods like sauerkraut or kim chi.
- 7) Hydrate- increase water intake to heal faster and aid elimination of toxins. Your doctor may ask you to keep a log of your I&O (input and output).

## PREPARING EMOTIONALLY FOR SURGERY

Support network: friends to visit and bring food  
 Laughing helps you heal faster: books and movies  
 Music: make a mix tape to listen to while in surgery  
 Visualize your surgery going smoothly and your recovery easy every day  
 Ritual to say goodbye to whatever is getting removed: get closure with body. Write letter, go to the ocean, have a bonfire, have a farewell party/funeral, bury something, plant a tree. Let it go. Honor your scars.  
 Breathe, meditate & relax.  
 Stones for surgery: Malachite, rhodonite, obsidian, amber, clear quartz, aquamarine.  
 Flower and gem essences for surgery: \*Five –Flower Remedy (rescue remedy) every hour. On pulse points or under the tongue.

## POST-OP:

Homeopathy: Arnica 1M every hour 1<sup>st</sup> day after surgery, then 3x a day for 1 •  
 Sore throat from anesthesia tube: Sage tea with honey

## NUTRITIONAL SUPPORT:

Since surgery is such a stress on the body, it helps to reduce stress in all other areas of your life, including food. Eating is a cheap and simple way to take medicine! Most of this regime can be followed for 2-4 weeks prior to surgery and 2-4 weeks after. (Careful with garlic a week before & 2 days after surgery)

- Drink at least 8 glasses of water a day to support your body flushing out toxins and rehydrate after surgery.
- Eating things that are somewhat pre-digested like soups and porridge are best after surgery so your body can focus on healing and not digesting. Miso soup with seaweed (or other broths, like bone broths) are easy on the stomach and full of nutrients that help your body heal. Seaweed helps your body recover from the anesthesia and pain meds.
- Try to add more of these spices into your diet, which are all anti-inflammatory and anti-microbial: cinnamon, horseradish, mustard, rosemary, ginger, garlic, turmeric, coriander, onions, honey and lemon.
- Add more: whole grains, especially oatmeal. Whole grains (or psyllium husk) can help clean out your colon when things feel stuck, which often happens post-surgery.
- Lots of fresh organic fruits and vegetables— especially seasonal foods that are the color of the rainbow (blueberries, strawberries, squash, oranges, dark-leafy greens, beets etc.) Eat lots more (pesticide-free) shiitake mushrooms, garlic, & dark leafy greens!
- Eat plenty of pectin-rich foods (such as apples, carrots, and cilantro) as they will bind with toxins, and help flush them out of the body. (Be sure the cilantro is organic because just like in your body, it attracts & pulls out the toxins in the environment. When non-organic, it will be concentrated in pesticides.)
- Sauerkraut, yogurt, and other fermented foods have natural pro-biotics to help especially if taking anti-biotics and prone to yeast infections.
- Eliminate (or reduce) foods that you know stress out your body. For most people these are: dairy, sugar, anything refined (flour, sugar, etc), coffee, alcohol, and fried stuff. It's hard, but worth it.
- *Mushrooms, Seaweeds, and Miso* are SUPER-FOODS packed with micro-nutrients. Mushrooms have been proven to boost immunity and fight cancers. Seaweeds contain iodine which connects to receptors in the body that keep toxic ionizing radiation from taking hold, from x-rays, electronics, uv rays, airplanes, and other environmental exposure.

• **Supplements:**

Vit C 1000- 2000 mg/3 x a day (to bowel tolerance) 1 week before & 1 week after, 3<sup>rd</sup> week lower to 500 mg/3 x day. Best buffered or time released.

Quercetin

Evening Primrose Oil (and fish oil if not vegetarian): 1500 mg as needed for inflammation.

- Hot/Cold therapy: ice for 1<sup>st</sup> 24 hrs, then alternate hot and cold
- Baths: Epsom or sea salt scrubs (to eliminate toxins)  
Add lavender, chamomile oils or flowers for relaxing & sleeping  
Add rose geranium, bergamot for post-surgery depression
- Massage (after incision has healed) with Vit E, castor oil, gotu kola, comfrey calendula, yarrow or Poulitices

#### \*COUNTER INDICATIONS WITH ANAESTHESIA AND HORMONES

Specifics- *St. John's Wort* and *Ginkgo*- are incompatible with most drugs including hormones and anaesthesia. The liver detoxifies/breaks-down hormones and drugs in the body through the production of *enzymes*. These herbs specifically induce the liver to create more P450 enzyme which changes the half life and thus reduces the effectiveness of the drugs. They also inhibit other enzymes which may allow toxic drugs to circulate in the system longer.

### HERBAL STRATEGIES FOR SURGERY

BRUISING AND HEALING: *start pre-op*

- 1) **Immune System Modulators**- best used over a period of time to increase deep immunity at the level of the bone marrow- *Astragalus, Ashwaganda/Withania, most mushrooms* including *Reishi/Ganoderma lucidum, Maitake, Shitake, Turkey Tales, Lion's Mane*
- 2) **Surface Immune Tonics**- increase immunity and white blood cell proliferation quickly for the onset of colds etc- *Echinacea, Yarrow/Achillea millefolium*
- 3) **Vulneraries**- usually applied externally to heal cuts and wounds - *Comfrey/Symphytum, St. John's Wort/Hypericum perforatum, Calendula, Plantain/Plantago, Lavender essential oil, Chickweed/Stellaria media, Mullein/Verbascum thapsis, Yarrow/Achillea millefolium, Horsetail/Equasetum, Gotu Kola/Centella asiatica*
- 4) **Bruises**- *Arnica homeopathic* tablets and salve(never on open wounds), or 2-3 drops tincture internally
- 5) **Anti-Microbials**- in case of infection or preventatively- *Yarrow/Achillea millefolium, Echinacea, Myrrh/Commifera myrrha, Thyme, Rosemary, Garlic, Calendula, Lavender and Tea Tree essential oils*

MITIGATING DRUG EFFECTS:

- 1) **Hepatics**- for liver toxicity and regeneration- *Milk Thistle seeds/Silybum marianum*, *Turmeric root/Curcuma longa*
- 2) b- cleanse and increase the bloods capacity to carry toxins out of the system- *Dandelion root/Taraxecum*, *Red Clover/Trifolium*, *Yellow Dock/Rumex crispus*, *Oregon Grape Root/Mahonia*, *Burdock root/Arctium*
- 3) **Lymphatics**- clear toxins, increase white blood cell count- *Red Root/Ceanothus*, *Cleavers/Galium aparine*

#### POST-OP PAIN AND INFLAMMATION-

- 1) **Nerve Regenerators**- *St. John's Wort/Hypericum*, *Wild Oats/Avena*
- 2) **Anti-Inflammatories**- *Turmeric/Curcuma longa*, *Bromelain plus Quercetin* (supplement taken away from food), *Black Cohosh/Cimicifuga racemosa*, *Lobelia inflata* (at high dose is an emetic- causes vomiting), *Evening Primrose Oil*-1500mg every 3 hours, *Willow bark*, *Meadowsweet*, *Cayenne/Capsicum marianum*- depletes Substance P- a neurotransmitter- cuts the nerve firing response to pain, *Chamomile/Matricaria or Anthemis nobilis*, *Calendula*, *Violets/Viola odorata*, *Indaian Warrior/Pedicularis spp.*
- 3) **Rubifaciants**- increases circulation to the area for faster healing- *Cayenne pepper/Capsicum marianum*, *Ginger/Zinziberis* (fresh not as hot as dry), *Cinnamon*, *Prickly Ash Bark/Zanthoxylum*, *Peppermint*, *Rosemary*, *Horseradish*, *Mustard*- internally as food or tincture, or in oil- spread over thin cloth
- 4) **Demulcents/Emollients**- moisturizing herbs with mucilage for soothing inflamed tissue- *Marshmallow root/Althea*, *Slippery Elm Bark/Ulmus fulva*, *California Slippery Elm/Fremontia californica*, *Flax seeds*

#### SCARRING

*Gotu Kola/Centella asiatica*, *Vitamin E oil*, *Castor Oil*- rub in forcefully to break up scar tissue

#### BOWEL IRRITABILITY (surgery may cause constipation)

- 1) **Bitters**- increase the flow of bile and hydro-chloric acid to aid digestion; mild laxative effect- *Dandelion root/Taraxecum*, *Yellow Dock/Rumex crispus*, *Burdock root/Arctium lappa*
- 2) **Carminatives**- decrease gas- *Cinnamon*, *Peppermint*, *Chamomile*, *Ginger*, *Fennel*, *Anise*
- 3) **Laxatives**- should only be used for a short period of time as a last resort- *Senna*, *Cascara Sagrada/Rhamnus persiana*, *Turkey Rhubarb/Rheum palmatum*
- 4) Bulk fiber- *flax*, *psyllium*

#### EXAMPLE OF AN HERBAL REGIME FOR SURGERY

Beginning one month before surgery, and continuing through healing stages after-

- Eat shitake mushrooms and seaweed 2x per week
- 1 Tbs. ground Milk Thistle seeds 1x daily
- Vitamin C- TITRATE TO BOWEL TOLERANCE 1000-2000 mg
- Homeopathic Arnica tablets 3x/day
- Increase water intake to 6-8 cups daily; avoid alcohol
- Bromelain plus Quercetin- supplement taken away from food
- Evening Primrose Oil- 1500mg 3-6 x daily (stop one week before, continue 2-5 days after surgery)
- Tea or tincture of
  - 1 part Turmeric/Curcuma longa
  - 1 part St. John's Wort/Hypericum (unless on hormones)
  - 2 parts Wild Oats/Avena sativa
  - 2 parts Siberian Ginseng/Eleutherococcus senticosis
  - 1 part Echinacea purpurea or angustifolia
  - 1 part Red Root/Ceanothus spp.
  - \_ part Yarrow/Achillea millefolium
  - \_ part Licorice root/Glycyrrhiza (may raise blood pressure)
  - \_ part Cayenne pepper/Capsicum
 Tea- drink 2-4 cups daily; Tincture- 30 drops 3x per day.

- eat only broths for first 3-5 days, such as Miso soup
- Hydrotherapy- cold for first 24-48 hours, then alternative with Hot
- Salves and Sitz baths with vulneraries for topical healing
- Pro-biotics if antibiotics taken

## ENDOCRINOLOGY

### Steroid Hormone

Steroid hormones are derived from cholesterol. They include *sex steroids* (estrogen, progesterone, testosterone,) *glucocorticoids* (cortisol, prednisone, hydrocortisone,) and *mineralocorticoids* (aldosterone.)

**Androgens:** produces typical male “sexual” characteristics, stimulates bone & muscle growth. Some androgens are: testosterone, androstenedone (andro), DHT (dihydrotestosterone), DHEA  
The precursor to all these hormones is cholesterol (grandparent) then pregnenolone (parent). Testosterone gets converted into estradiol (a kind of estrogen) and DHT (by enzymes) so the enzyme that converts T into DHT is important here.  
Estradiol: supports health and growth of neural filaments in brain (connects brain cells) and creates neurotransmitters, supports sexual health, blood and arterial flow, skin health etc...

The classic definition of androgen is simply a substance that stimulates the growth of the reproductive tract. In general however, the term androgen is used to refer to sex steroids whether synthetic or naturally occurring that exert their effects primarily at the androgen receptor.

Androgens have two primary effects: *anabolic and androgenic*. Androgenic effects produce the typical male sexual characteristics. Anabolic effects primarily result in stimulation of muscle and bone growth as well as metabolic changes. While testosterone exerts both effects, certain synthetic androgens have differing relative anabolic and androgenic effects.

The majority of androgen in blood is bound to protein, chiefly Sex Hormone Binding Globulin (SHBG) with the remainder bound primarily to albumin. Only 1-2% is unbound, 'free' androgen. Androgen bound to SHBG is neither bioavailable to exert androgenic and anabolic effects nor vulnerable to metabolism. In individuals with high levels of SHBG such as cisgender (non-transgender) women, the free androgen level is lower, but hormones have a longer half life. Conversely in an individual with lower levels of SHBG more free androgen is bioavailable however, metabolism and destruction occur more rapidly. Normally, women have about twice the circulating levels of SHBG that men do.

### **HORMONE REPLACEMENT THERAPY: MALE SPECTRUM**

This section will focus more on the male spectrum, with more to come about transgender folks on the female spectrum. On the whole, there is a lot more information (online) about herbs for M2Fs than for F2Ms, so I have chosen to start with F2Ms to try to fill the gaps.

“Overall, testosterone therapy is far more successful at producing desired secondary sex characteristics in transmen than hormonal manipulations are in transwomen. This is due to the fact that in general, the biological plan for the human body is 'Eve' and adding testosterone, whether endogenous or exogenous, will produce significant reversible and irreversible changes to a person's body. With regards to secondary sexual characteristics, going from Eve to Adam is relatively easy, but as transwomen are painfully aware, once you arrive at Adam, going back is difficult if not impossible. So while testosterone is effective and very helpful for transmen, it also represents a more significant commitment to permanent assumption of the male gender role than does estrogen in transwomen.” (Gorton and Spade)

### **TESTOSTERONE**

People desiring more masculine characteristics take Testosterone. Usually, it is taken as an injection of T-cypionate (Depo-T) or T- enanthate (Delatestryl). They are mixed with some kind of oil and taken at doses usually ranging from 50-150 mg/week. Peak serum levels are achieved within 2-5 days after injection and return to baseline after 10- 14 days. Some adverse effects may be ameliorated by using a shorter dosing interval with lower peaks and higher trough levels (weekly instead of every other week.) Other forms of testosterone include transdermal (patches and gel) and oral, but they are less common than injecting. From a herbal/holistic perspective, injecting is the preferable method as it is less stress on the liver.

### **POSSIBLE EFFECTS OF HRT- Testosterone:**

Cessation of menses, deepened voice, increased facial and body hair, clitoromegaly (enlargement of the clitoris), male pattern baldness, acne, redistribution of fat, coarser skin, higher blood cholesterol levels, increased libido.

Risks: possible increased risks of ovarian or uterine cancer, changes in uterus and ovaries (fibroids, cysts), possible increased risk of osteoporosis, possible increased risk of heart disease.

While these risks are important to be aware of and monitor, it is also essential that as a practitioner, you support the choices of your patient and understand that their mental health and well-being may depend on their gender presentation, and therefore it is a healthy choice for them to take steroids.

However, studies on the long-term side effects of HRT are not available, so I suggest using complementary herbs to both support the use of HRT and also to achieve masculinization, so patients can lower their doses.

If a person has chosen not to take Testosterone, but still desires masculine characteristics, it's possible to play with the herbs. A possible treatment plan (harm reduction style) would be to take HRT until the desired characteristics are achieved (lower voice, hair growth, muscle build-up) and then titrate off the steroids, using herbs and then only taking herbs that are supportive to the constitution, but also are androgenic.

I am experimenting with Vitex with a great deal of success with this- if you use it, please email me- I'd like to begin to compile a study!

## **HERBS for support**

### **Androgenic Herbs and Food**

Many herbs and plants a) contain phyto-testosterone (identical molecularly to human testosterone) b) possess androgens or androgen analogues or c) stimulate T production in body. By increasing progesterone & testosterone naturally- you can increase masculine characteristics, including hair growth, lower voice, muscle build, but can't stop menstruation.

Examples: *pine pollen (Pinus sylvestris)*, *Sarsparilla (Smilax officianalis)*, *Sassafras (Sassafras albidum)*, *Damiana (Turnera diffusa)*, *Ashwagandha (Withania somnifera)*, *Ginsengs (Panax)*, *Oats (Avena sativa)*, *He Shou Wu (Polygonum multiflorum)*, *Rosemary?*

### **Kidney and Adrenal Tonics**

It's vital to nourish the kidneys and adrenals, which produce 90% of your testosterone, DHT, DHEA, cortisol, and aldosterone. The adrenals also responsible for flight or fight stress response- which releases cortisol and adrenaline. Therefore, under constant stress, cortisol and adrenaline are constantly surging (in the old days being chased by a tiger, but present day stressors include: poverty, gender identity anxiety, family or relationship problems, etc...). Designed for short bursts of energy, high levels are not sustainable: raises heart rate, glucose production, and metabolism. As cortisol rises, the DHEA goes

down and suppressing androgen production. So both NERVINES and ADRENAL/KIDNEY tonics are important.

Examples: *He Shou Wu, california poppy, catnip, chamomile, hypericum, lavender, lemon balm, oats, passion flower, skullcap, valerian, vervain, wild lettuce. Adaptogens: reishi, schizandra, ashwaganda, astragalus, aralia, ginseng, tulsi*

### **Liver tonics/detoxifiers/Alteratives**

Because people using HRT are processing pharmaceutical drugs through their bloodstream, it is important to consider liver supportive herbs and alteratives, without removing the substance completely and nullifying the desired effect.

Examples: *Nettle, bladderwrack, burdock, cleavers, echinacea, garlic, red clover, yellow dock.*

### **ANDROGENIC HERBS: (can be used instead of HRT)**

**Damiana:** (*Turnera diffusa*) Calms mind, relaxes body, lifts mood, superlative sexual tonic. Good esp. for anxiety and depression related to sex.

**Ashwaganda** (*Withania somnifera*): translated as “strong horse medicine” or “sweat of a horse” or gives the virility of a horse.

Adaptogen – increases body’s ability to adapt to and resist stress. Both energizing and soothing, classic reproductive tonic & aphrodisiac.

Powdered, taken in milk with cinnamon and cardamom or ghee- gives strength of a horse. Good for fatigue and debility, nervous tension and stress.

**Sarsaparilla:** (*Smilax ornata*): mild androgenic effects, sexual tonic, anabolic toner (good with Echinacea and saw palmetto) blood purifier for genito- urinary system, liver and gallbladder. Rich in steroidal saponins to support producing steroidal hormones. Great as a tea with dandy root tastes like vanilla-y.

**Ho Shou Wu** also known as Fo Ti, (*Polygonum multiflorum*): “the black haired Mr. Wu” restores vitality, said to turn grey hair black again...longevity tonic-normalizes actions of the kidney and liver, increases sperm count. Rejuvenating tonic- safe for long term use. You can make a powder, blend with cinnamon, ginger, and cardamom and make a paste with honey and eat it.

**Wild Oats:** nerve tonic and cardiac herb- depression, fatigue, irritability, rich in silica and calcium- great for bones. Soothing.

**Garlic:** immuno-stimulant, aphrodisiac, cardio-tonic, lowers bp, cholesterol, more info under food.

**Ginseng:** promotes energy, stamina, and endurance. Nourishes kidneys. Revitalizes and restores energy. Use regularly for 3-4 months.

(**Panax:** ancient plant in Chinese medicine. Stimulates LH which increases T. don't overdo! **Eleuthero/siberian:** immune tonic and adaptogen, helps withstand stress of transition.)

**Pine pollen:** (*Pinus sylvestrus*, *Pinus nigra*) Pine pollen actually contains testosterone and androstenedione Pulp mills- downstream female fish transform into males. (also pulp and bark, but mostly pollen) take in tincture- available online- Chinese markets.

**Vitex** (*Vitex agnus-castus*): (it's called chaste tree- was once used to suppress monk's libido) Endocrine/reproductive normalizing. – will either suppress or stimulate hormone production as necessary- pms, enhance or calm sexual vitality. boosts progesterone levels but lowers Testosterone levels and libido helps with muscle build-up (Joshua muscat.)

**Prickly ash** (*Zanthoxylum*): circulatory stimulant- warms the body, helps muscle and joint pain- not for when there is chronic inflammation- too hot. Could be supportive in lowering voice (Joshua Muscat)

## NUTRITIONAL SUPPORT:

**Celery:** contains androgen-like chemicals, lowers blood pressure, helps circulation  
2 stalks of celery contains: 275 mg potassium, 30 mg magnesium, 35 mg calcium, 225 IU vitamin A. Anti-microbial, Anti-bacterial,. Helps kidneys remove toxins, supports filtration and helps maintain electrolyte balance. Also considered a sexual tonic. Supposedly a male steroid, related to Testosterone and androstenedone has been found in celery that elevates sex hormones

**Cucumber:** tonic for kidneys, good for skin, contains 260 IU Vit A, potassium and folic acid.

Corn

**Leafy greens:** Kale, collards, Chard, Spinach

**Radishes:** help normalize thyroid hormones and liver detox.

**Garlic:** long history as a sexual tonic. In studies, garlic consistently increases T levels, sexual desire, and stimulates immune system and supports cardiovascular system. Must be eaten raw for medicinal effects or take garlic capsules if irritates stomach. Avoid taking it if on blood thinners.

**Rosemary, Parsley, Thyme**

**Oats:** fresh oats (milky oat tops) have been found to increase T levels (tincture). Dried oats increase LH (luteinizing hormone) and stimulates release of T. Known as a sexual tonic and stimulant. Nervous system relaxant- good for stress and anxiety, nervous tension and exhaustion. 70% fiber, so lowers cholesterol.

**Pine nuts:** (latin name is Pinus semen) Highly nutritional and aphrodisiac food. In the roman and greek pharmacopeia as a sexual stimulant and increasing virility. Pine nuts actually contain Testosterone. Also high in omega 3s (and have some estrogen and estradiol).

**Meat:** If not vegetarian, meat (must be hormone free- organic or wild) small amounts frequently, esp. wild red meat- lamb, beef, buffalo, venison. Keeps T levels high. **Oysters:** high in zinc.

### **AVOID:**

- **Herbs:** licorice (contains estrogenic compounds, increases cortisol levels, lowers production of T, increases estrogen), Black Cohosh, Hops.

- **Beer:** HIGHLY ESTROGENIC. 100 gm (3.5 oz of hops contains 30,000- 300,000 IU of estrogen, including estradiol, which lowers T and binds to free T in bloodstream, making it unavailable. {Before the German Beer Purity Act in 1516, beer was a medicinal drink made by peasants with herbs called gruit (made from yarrow, rosemary, bog myrtle) which was sexually and mentally stimulating. The Catholic church got monopoly on gruit and ordered that all sexually stimulating herbs be removed, replacing them with hops, a well-known sedative/nervine herb. The German beer makers noticed that the women who worked in the hops fields got their periods early and developed sex characteristics early...}

- **Soy:** contains estrogens, often is really processed and genetically modified.

- **Reduce plastic use**

Environmental estrogenic pollution/industrial substances:

- cause more T to convert into estradiol
- interfere w/production of T (by binding free T)
- are xeno-estrogens (mimic estrogens)

The balance is shifted towards the estrogen side (which we all have; female bodied young people are getting more female sex characteristics early, especially low income and pop of color in more polluted areas) SERIOUSLY disrupting the androgen/estrogen balance. Many studies show that sperm counts are down, higher incidences of testicular cancer, undescended testes in adolescents, impotence rates are higher.) This is also affecting panthers, birds, fish, alligators, frogs, and bats....

Endocrine-disrupting chemicals in the environment are in the soil, air, and water due to estrogenic pharmaceuticals, DDT (pesticides), PCBS (polychlorinated biphenyls), phthalates (makes plastic flexible), dioxins (in bleach, tampons), bisphenol-A (in dental fillings & tin cans), car exhaust.

\*Perhaps one approach would be to eat plants and take herbs that have more phyto-estrogens AND Androgens- helps fill up those holes so we don't absorb all the endocrine disrupting hormonal mimics and avoid plastic and chemicals listed above.

## SUPPORT FOR SIDE EFFECTS OF HRT

Of course eating whole foods will support anyone: Bone broths, fermented foods. Fresh vegetables, limit sugar and other stressful foods

**HAIR THINNING/LOSS:** caused by pressure on blood capillaries affected by the membrane on the scalp getting thicker with age (more DHT- dihydrotestosterone) which impairs blood circulation which feed the hair follicles necessary for hair growth. 50% of people on T experience hair loss. The scalp/follicles can be regenerated...

- Massage daily with Rosemary hair oil- 2x day & brush often!
- Use herbal vinegars: horsetail, nettles, rosemary, sage
- He Shou Wu as tea or tincture or Saw Palmetto
- Borage seed oil (gamma linolenic acid and alpha linolenic acid- fatty acids)- work like Propecia- block androgen receptors in hair follicles)
- Cut down on salt, eat seaweed (iodine), vit B, E, A, D
- Teas of silica rich herbs: horsetail, oats, nettles
- More protein in diet
- Nourishing the kidneys with: asparagus, artichoke, celery, aduki beans, parsely. Inversions- hang off bed & rub

**ACNE:** due to more sebum, oil and sweat production. Treat liver, but not too hard so that it removes the T itself! Hormone herbs should help too.

- fresh veggies, no dairy & sugar, drink lots of water
- Herbs: (alteratives and anti-microbials) dandelion leaf and root (*Taraxacum officinalis*), Red Clover (*Trifolium pratense*), Burdock (*Arctium lappa*), Cleavers (*Galium aparine*), Echinacea (*Echinacea purpurea*), Yellow dock (*Rumex crispus*), Oregon Grape (*Mahonia aquifolium*).
- Externally: Scrub of oats, almonds, calendula, lavender, clay , astringents: witch hazel, calendula, tea tree, lavender, steams and masks with honey.

## GYNECOLOGICAL EFFECTS:

(fibroids & cysts, PCOS, Ovarian cancer)

- Uterine tonics and stimulants: *Vitex agnus castus*, ginger (*Zingiber officinale*), *Ceanothus*, *Chapparal (Larrea)*, *Ocotillo*
- Seaweed
- castor oil packs or green clay packs
- Bladder relaxation and kegels

\*A possible plan could be to go off (titrate) Testosterone every 4-6 months, take Vitex or mugwort to stimulate menses and then go back on to clear out build up?

**MUSCULOSKELETAL:**

Inflammation (when taking steroid), tendonitis- due to muscle build up on small frame, structural delicacy- anabolic hormones building tissue.

- Stretching, hot/cold packs, massage & body work
- Anti-inflammatories: Turmeric, Echinacea Chamomile, chickweed, mallow, calendula, echinacea, hypericum, witchhazel, meadowsweet, willow bark, yerba mansa, licorice root, stachys (hedgenettle), aloe, arnica, chickweed, ginger.
- Oil of st johns wort, ginger poultices

Possible risk of osteoporosis:

- Dark leafy greens, nuts, seeds, seaweed, molasses
- Exercise! Most effective against osteoporosis
- Reduce: coffee, sugar, salt, alcohol
- Herbs high in Cal:Oats, horsetail, nettles

Slower wound healing: oil w/calendula, st johns wort, arnica. EO of lavender,

Injection site care: Lavender oil, oil of calendula, Salves w/ calendula, st johns wort, chamomile etc...arnica homeopathically for bruising.

**CARDIOVASCULAR:**

It is projected that higher levels of T have greater and earlier risk of Cardiovascular disease, but it hasn't been studied enough. Not definite for trans men- 20-40%. Increased insulin sensitivity and greater risk of hypertension. \*Careful of Tobacco abuse.

- Exercise & diet: see above Plus EFAs
- Herbs: Hawthorn (*Crataegus*) : cardiovascular tonic, Gingko (*Ginkgo biloba*): vasodilator, Passionflower (*Passiflora incarnata*): calming; Garlic (*Allium sativum*): normalizes blood pressure and ushers out LDL; Ginger (*Zingiber*) & Cayenne (*Capsicum annuum*): circulatory stimulants,; Yarrow (*achillea millefolium*): vascular tonic, halts bleeding
- Laughing (increases O2 exchange, stimulates catecholamines (what exercise does) that speeds healing process and reduces inflammation, reduces hormones that suppress immunity function.

**KIDNEY AND LIVER SUPPORT:**

careful treating liver- don't want to change metabolism of hormones

- Hepatics: Dandelion root (*Taraxacum officianale*), Yellow dock (*Rumex crispus*), Burdock (*Arctium lappa*), Oregon grape (*Mahonia aquifolium*). Milk thistle (*Silybum marianum*): 200-300 mg a day- low dose.
- Bitters: make digestive juices flow, self repair in intestines, supports assimilation of nutrients- healthy liver assists proper hormonal function and supports detox

(Next paper: Progesteronics, Estrogenic herbs & Estrogenic foods)

## EMOTIONAL AND SPIRITUAL SUPPORT

- Magic and energy work to support genderqueer and transgender people
- Honoring people who walked this path before- feeling the support of ancestors
- Rituals

### •FLOWER ESSENCES:

flower essences are remedies that address emotional or spiritual crises or imbalances. There are thousands of remedies made from flowers, trees, gems, environments...Basic dosage is 2-4 drops in mouth or in glass of water 4 x a day.

**Saguaro:** takes 30 years to grow roots, 40 years to grow trunk, 75 years to grow arms. In process of becoming. Claiming one's own inner authority and presence. Ancient and strong masculine energy. Sense of tradition and elders.

**Walnut:** transition essence. Freedom from limits, courage to follow one's own path. Letting go of family/societal expectations or beliefs.

**Arnica:** conscious embodiment, recovery from old trauma- unlocks and releases old wounds/shock/trauma held in body.

**Bleeding heart:** strength in the heart, love based on self- respect and love. tendency towards co-dependence.

**Calla Lily:** shame or guilt about gender identity, sexual expression, finding ones own truth in gender and sexuality.

**Borage:** gives buoyancy and courage in dark times, all purpose tonic for facing challenges.

**Pine:** guilt, feeling overly responsible for others, filled with "should", self-blame into self-forgiveness.

**Yarrow:** inner radiance, inclusive sensitivity, strength of boundaries. Feeling absorptive, vulnerable to others and environment.

**Shooting star:** feeling of alienation, like you don't belong here on earth, finding purpose

**Manzanita:** leaving one's body, revulsion towards one's body. Embodiment- acceptance.

**Mariposa Lily:** healing from sexual abuse, not getting what you needed from mother. maternal nurturing, to mother and be mothered. feelings of Abandonment.

**Alpine Lily:** feminine energy- sexually and spiritually

**Pretty face:** self hatred, feeling unlovable. finding your beauty

**Sunflower:** self- radiance, shining your particular light, masculine energy- w/o inflated ego.

**Gold:** like you are a precious gem. Self-worth. Solidity of self.

**Pyrite:** individuation, true to one's own values. living the life you want no matter what.

## BIBLIOGRAPHY AND RESOURCES

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