Building Nova:

An MF Guide

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Introduction:

Hihi :) I hope you are having a good day and I'm glad you're here. I had the idea to write this in November of 2025, about a year after my egg cracked. I don't want to spend too much time on myself and "am I trans or not?" This guide assumes you already know who you are.

A little bit about me, I am autistic, a writer, a recovering alcoholic, a trauma and abuse survivor. I have faced financial issues, death, hate, loss of self and time; I have made *so many* mistakes.

I was 40 when the realization hit and I really did not see it coming. It was one of the worst nights of my life and I just wanted to kill myself if I'm being honest…I'm really glad I didn't though.

I tried denial, pretending I didn't realize it, avoidance and finally I settled on curiosity. I like to know why things are the way they are and how they work.

I had to figure out how I worked. How did I get this way?

Now that I understand, it's actually pretty straight forward, I just didn't see it all clearly until I gave it the time it deserved.

I started digging through my life and writing down everything I could remember that felt relevant. Sometimes, I'd remember something new branching off a fuzzy memory I'd written down. I did this for about a month, obsessively and I categorized / organized my life.

For me, my path was undiagnosed autism + childhood trauma and abuse (start masking kid!) → toxic masculine household (don't be a girlyman!) → first addiction (MMORPG) and complete immersion in that world, not living in my body → alcohol → more alcohol → did I mention alcohol? + toxic masculine work environment → do the next thing you're supposed to do…I found true love and I got married, worked a job I hated, stayed drunk as much as I could and then I blinked - those years flew, about 19 years drunk, I got sober when I was 38.5 and realized I was transgender shortly after.

When I finished my self-analysis and understood who I was - I had all the evidence I needed to not only understand that I am transgender, ***I have always been transgender*** and how I misunderstood so many things in my life, I shifted from curiosity to compromise.

My compromise at the time was to tell my wife, my besties, and to never start HRT. I'll never forget how nervous I was telling my wife, I was about 50/50 that she'd stay with me. We were in a rough patch and this is not an easy thing to deal with, I acknowledge that.

The thing my wife said to me is the thing I wish for every person going through this experience hears. She said, "I don't care. I love *you* more than your body."

Who says that? I'm still floored by that response. I told my besties and that was it, I was good, I felt better.

I remember taking a walk that night. I started thinking to myself about what to do next. I was 40, AMAB, overweight, a hairy man body, bald head, I felt overwhelmed. I didn't know where to start, I had nobody to talk to. The one thing I was sure of was that I wouldn't start HRT because I was afraid of being hated and it was "too late" for me.

I decided to find a workout routine to feminize my figure, remove my body hair, use hair regrowth formula on my scalp and maybe, if I was brave enough, I'd remove my facial hair one day. I wanted to feminize myself as safely / privately as I could.

Seven months later I injected E for the first time and took my spironolactone like a good girl. I'm slated for an orchiectomy in February 2026 and hoping, pleading with my employer, to cover FFS, if they don't, I will see if I can figure out a way to afford it.

I am Nova, and this is my MtF guide. I am not a doctor, I am not formally educated on any of these topics, but I thought it might be nice to share what I've learned as well as studies, theories and lived experiences. I would never knowingly spread misinformation / disinformation so if you find something in here that is incorrect feel free to reach out to me. This document will be a live document that I will update as I transition: buildingnova@proton.me

****Some asshole reported my guide and google took it down, I will be hosting it on archive.org moving forward – to that person – FUCK YOU 😊 I'm not going away****

Peace and love to all of you, and to the people that hate us, we've always been here and we're not going anywhere, so please move on, get educated or just *fuck off*.

What HRT Will & Will Not Change

Personally - I have heard a lot of different anecdotal changes reported by transgender people I know - I want to try to keep this document as factual as possible. I am not dismissing anyone's experience, just sharing the available data as of writing this.

Quick Reference:

Body System	Changes?	Onset	Maximum Effect	Reversible?
Breast tissue	✓ Yes	3-6 months	2-3 years	**No**
Skin texture	✓ Yes	3-6 months	Ongoing	Yes
Body fat distribution	✓ Yes	3-6 months	2-3 years	Yes
Muscle mass	✓ Yes (decreases)	3-6 months	1-2 years	Yes
Body hair	✓ Partial	6-12 months	>3 years	Yes
Scalp hair	✓ Stabilizes	1-3 months	1-2 years	Yes
Facial hair	Limited only	6-12 months	>3 years	Yes
Genitals	✓ Yes	3-6 months	2-3 years	Variable
Voice	✗ No	—	—	—
Skeletal structure	✗ No	—	—	—
Facial bones	✗ No	—	—	—
Height/hands/feet	✗ No	—	—	—

Skin Changes:

Skin becomes softer, thinner and less oily due to reduced sebum production. Pores appear smaller, acne typically decreases and body odor shifts. Increased tendency to bruise and dryness may occur.

Timeline: Onset at 3-6 months with effects continuing throughout treatment.

Reversibility: Fully reversible if HRT is discontinued (1).

Individual Variation: Depends on baseline skin type and degree of testosterone suppression achieved.

Body Fat Redistribution:

Fat redistributes from android pattern (abdominal/waist) to gynoid pattern (hips, buttocks, thighs, breasts). Studies document substantial shifts: fat mass increases approximately 28-30% in the first 12 months, with regional increases of 18% in trunk and 27% in legs and gynoid regions. Long-term studies show body composition approaches cisgender patterns ~32% fat mass.

Timeline: Onset at 3-6 months with maximum effect 2-3 years and continued redistribution beyond (2).

Reversibility: Yes - largely reversible; fat distribution shifts back toward male pattern if HRT stops, though some effects may persist.

Individual Variation: Highly dependent on diet, exercise and starting body composition.

Muscle Mass & Strength:

Lean body mass decreases progressively. Studies document thigh muscle volume decreasing 5% at 12 months, 12% at 3 years, and up to 17% lower lean mass after 8 years compared to cisgender men. Grip strength and limb strength decrease 25-33%. Importantly, while absolute muscle mass remains higher than cisgender women, **relative lean mass percentage becomes comparable.**

Timeline: Onset at 3-6 months; initial plateau at 1-2 years with continued decline to 3+ years.

Reversibility: Fully reversible - muscle mass and strength recover if HRT is stopped and testosterone resumes.

Individual Variation: Exercise regimen significantly impacts outcomes, starting muscle mass varies considerably.

Hair Changes - Body & Scalp:

Body Hair: Becomes thinner, finer, lighter, and grows more slowly (3). Growth does NOT disappear completely — reduction only. Complete removal requires removement via electrolysis, laser or IPL.

Timeline: Onset 6-12 months (slower changes); maximum effect >3 years.

Reversibility: Reversible — growth returns to previous pattern if HRT stops.

Individual Variation: Darker/coarser hair less responsive; ethnic background influences response.

Scalp Hair: Male pattern baldness typically stops or slows significantly (4). Some regrowth possible but highly variable - hairline rarely returns to pre-balding state without intervention. Existing follicles that have been inactive for years may not recover.

Timeline: Onset 1-3 months (stopping further loss); regrowth variable over 1-2 years.

Reversibility: Reversible — hair loss would resume if HRT stopped.

Facial Hair - A Persistent Challenge:

Limited only — may thin slightly and grow slower, but **rarely goes away entirely** (5). A 2023 systematic review confirms GAHT "may reduce" but cannot eliminate facial hair growth. This is because testosterone during puberty permanently converts vellus (fine) hair follicles to terminal (coarse) follicles. This conversion cannot be reversed hormonally (6).

Timeline: Onset 6-12 months; maximum effect >3 years (modest improvement only).

Reversibility: Effects are reversible; growth increases if HRT stops. **If you've done laser / electrolysis, however, these changes are permanent.**

Effective Treatments: Electrolysis (permanent, FDA-approved, 100+ hours for full beard) or laser hair removal (significant reduction, works best on light skin/dark hair).

Genital Changes:

Testicular atrophy: Testicles shrink to approximately half original size due to suppression of gonadotropins (LH/FSH). Histological changes include decreased tubular diameter, arrest of spermatogenesis, and Leydig cell alterations.

Timeline: Onset 3-6 months; maximum effect 2-3 years.

Reversibility: Variable — some recovery possible if HRT stopped early; prolonged use may cause permanent changes.

Erectile function: Decreased frequency of spontaneous erections; erectile function often diminishes (7). Without regular erections, penile atrophy can occur due to tissue disuse. Ability to achieve orgasm typically preserved but sensation may change.

Timeline: Onset 1-3 months; maximum effect 3-6 months.

Reversibility: Variable — function may return, but prolonged disuse can cause irreversible tissue atrophy.

Fertility: Sperm production decreases or arrests. The risk of permanent infertility increases with duration of treatment. **Fertility preservation should be discussed before starting HRT. ***ALSO DO NOT ASSUME YOU ARE INFERTILE*****

Voice - No Hormonal Effect:

No changes — estrogen does NOT raise voice pitch in adults (8). This is unanimous across all major guidelines. During male puberty, testosterone permanently lengthens vocal cords (1.6 cm vs 1.0 cm in females), thickens them, and enlarges the larynx (9). These structural changes are irreversible.

Why: Vocal cords are permanently lengthened and thickened. Estrogen cannot shorten or thin established vocal tissue, reverse laryngeal growth, or shrink the vocal tract.

Effective alternatives: Voice feminization therapy with a speech-language pathologist (raises habitual pitch, modifies resonance and intonation; typically 8+ weeks) or voice feminization surgery.

Skeletal Structure - Fixed After Puberty:

Bone geometry (hips, shoulders, ribcage): No change in adults (10). Multiple peer-reviewed studies confirm bone geometry "remains unchanged during GAH treatment in adult transgender people." A study of 535 transgender women across 25 years of HRT found no differences in periosteal width or cortical thickness.

Why: Skeletal dimensions are determined during puberty when testosterone causes broader bone development. After epiphyseal (growth plate) fusion at ages 18-20, bone geometry is permanently fixed (11). Only adolescents treated with puberty blockers before mid-puberty show bone geometry resembling their experienced gender (12).

What CAN change: Fat redistribution to hips creates a more feminine silhouette. Muscle mass reduction in shoulders changes body contour. Bone mineral density (protective effect) improves.

Surgical alternatives: Hip augmentation (fat transfer or implants), clavicle shortening for shoulder width reduction.

Facial Structure - Bone vs. Soft Tissue:

Facial bones (brow ridge, jaw, chin): No change. Facial bones undergo significant testosterone-driven growth during puberty and cannot be remodeled by estrogen (13).

Facial soft tissue: Yes, changes occur. A 2019 3D scanning study found cheek tissue increased 0.50-1.08mm and jaw tissue decreased 0.18-0.60mm within 3-12 months (14). Fat redistribution creates softer, fuller cheeks. UCSF guidelines note it can take "two or more years for these changes to fully develop."

Recommendation: UCSF advises waiting at least 1 year on HRT before deciding on facial feminization surgery, as soft tissue changes continue developing.

Surgical alternative: Facial feminization surgery (FFS) — brow bone reduction, jaw contouring, genioplasty, rhinoplasty (15).

Height, Hands, and Feet:

Height: No change in adults (16). Anecdotal reports of 1-3 inches lost likely reflect postural changes from muscle mass reduction (affecting spinal curvature) rather than actual bone shortening (17). In adolescents treated before growth plate fusion, high-dose estrogen can reduce predicted adult height by ~4.3 cm (18).

Hands and Feet: No change. Bone structure is fixed after puberty (19). Minor soft tissue changes (muscle/tendon reduction) may cause subtle differences, but no peer-reviewed studies document significant size reduction.

Adam's Apple (Thyroid Cartilage):

Changes: No. During male puberty, testosterone causes permanent cartilage growth that cannot be reversed hormonally (20). The angle of thyroid cartilage connection is set (~90° in males vs ~120° in females).

Surgical alternative: Tracheal shave (chondrolaryngoplasty) — outpatient procedure shaving down prominent cartilage (21). This does not affect voice pitch.

Connective Tissue Effects:

Not included in standard clinical guidelines, but research on estrogen's effects suggests:

Increased collagen content in skin, tendons, and ligaments.
Decreased stiffness of tendons and ligaments.
Increased joint laxity.
Improved skin elasticity.

These findings come primarily from cisgender postmenopausal HRT studies and have not been specifically validated in transgender populations (22).

Evidence For My Doubt Spirals

One of the things I've dealt with since this all started is internalized transphobia, self-loathing, self-rejection, denial, questioning if I am making this all up or if this is real. I hate it, these feelings suck and can be destabilizing to me.

Really think about this - my entire life (40+ years) I was told by everyone - "You're a boy / man." In my youth, I was given boy clothes, boy toys, placed in boy centric interests, told to be a man and yet this is not aligned with who I am. Nobody ever asked me if I felt differently.

I was programmed to be a boy. I never had a choice. *I am unlearning as much as I am learning.*

I often think about religions (I'm not a fan btw) and how they are really geographical and temporal. I mean, if I had been born 100 years ago in a different country my foundational beliefs would most likely be very different, if a MAGA Christian was born at the same time but in a different country, the same would most likely be true for them.

I find facts, data, peer reviewed studies to be comforting. If I can normalize something through data and proof that it isn't just me, then I can confront these spirals and try to stop them from getting worse when they happen (it's getting less frequent as of writing this, December 15, 2025) but they do still occur.

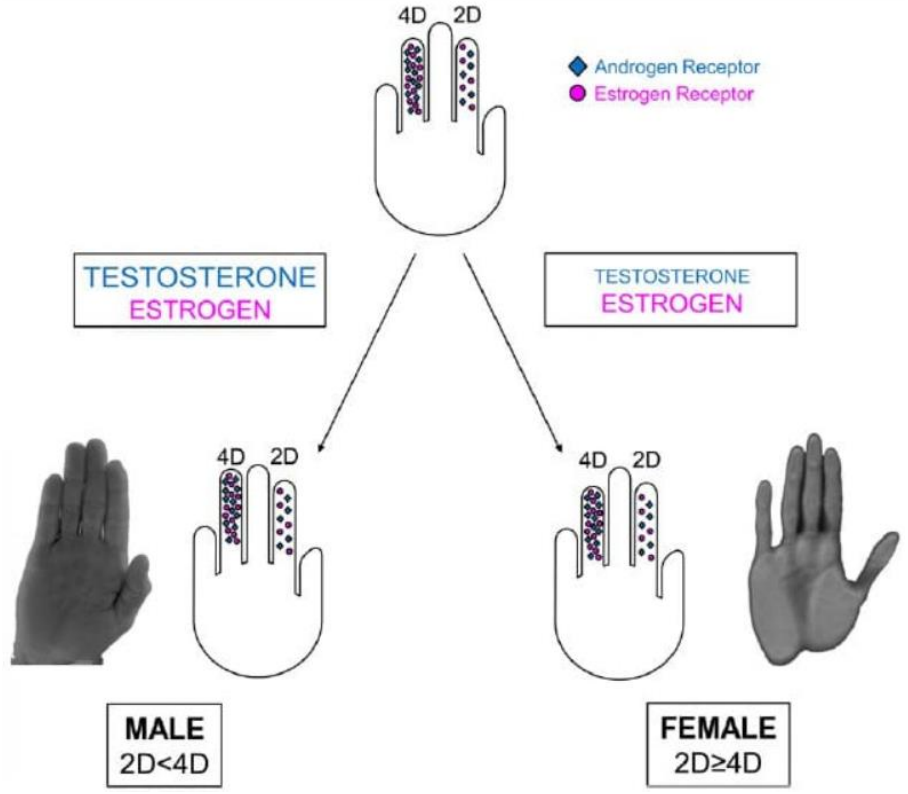
I'd like to talk about some very important studies regarding sex differentiation, sexual orientation and transgender identity - this is all evidence based and proof that we are real, we do exist, and you or I are not doing anything wrong. We were programmed wrong. **These facts help me accept myself. I hope they help you too.**

2D:4D Finger Ratio:
What did this study investigate & find?

The 2D:4D digit ratio is a study comparing the length of the index finger (pointer finger) to your ring finger. This has been investigated as a biomarker for prenatal androgen exposure (testosterone exposure in utero).

The study proposed that lower ratios (longer ring finger relative to index finger) indicate higher prenatal testosterone exposure. Research has examined whether 2D:4D differs by sexual orientation (comparing homosexual & heterosexual individuals) and by gender identity (comparing transgender individuals to cisgender controls).

The evidence that women with congenital adrenal hyperplasia (CAH), who experienced elevated prenatal androgens, show lower (more male typical) 2D:4D, while males with complete androgen insensitivity syndrome (CAIS) show higher (more female-typical) ratios. Experiential manipulation in rhesus monkeys has confirmed that early gestational testosterone exposure affects 2D:4D.

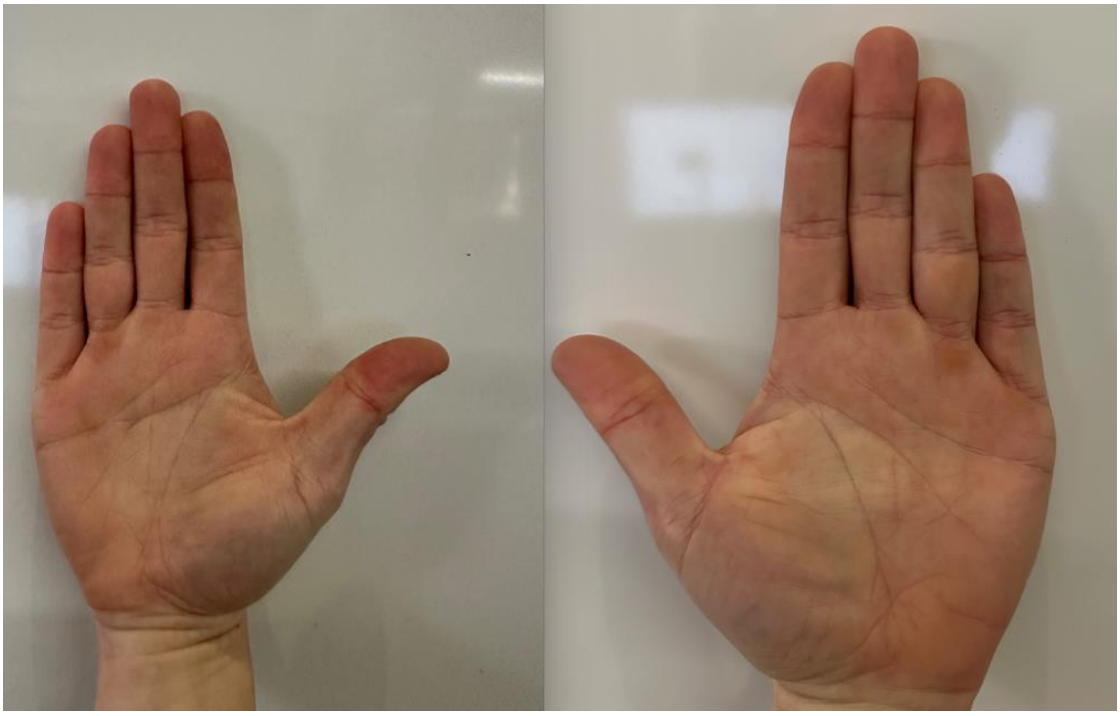


Gender identity findings from three meta-analyses show small effects primarily for transgender women:

Meta-Analysis	Transgender Women vs. Male Controls	Transgender Men vs. Female Controls
Voracek et al. (2018)	g ≈ 0.15 (small effect)	No significant difference
Siegmann et al. (2020)	g = 0.15–0.19 (feminized)	No significant difference
Sadr et al. (2020)	d ≈ 0.24 (feminized)	No significant difference

These effect sizes indicate that transgender women show slightly higher (more feminized) 2D:4D than cisgender men, but effect sizes are small. Transgender men show no consistent differences from cisgender women.

My hands:



Bed Nucleus of the Stria Terminalis (BNST) Sexual Dimorphism:

What did the study investigate & find?

The central subdivision of the bed nucleus of the stria terminalis (BSTc), a small brain region involved in anxiety, stress and sexual behavior has been investigated for sexual dimorphism and its relationship to gender identity (not sexual orientation).

The hypothesis developed by researchers at the Netherlands Institute for Brain Research proposes that BSTc shows sex differences in volume and neuron number and that transgender individuals may show BSTc characteristics matching their gender identity rather than their AGAB (assigned gender at birth).

Studies used post-mortem brain tissue to measure BSTc volume and neuron counts. The research focused specifically on transgender women (male-to-female) and transgender men (female-to-male) compared to cisgender controls.

These studies (1.) (2.) found some very interesting things - from what I have been able to find only one FtM brain has been studied and the findings were that he had BSTc volume and neuron counts that matched a cisgender man, aligning his gender identity with what he said he felt like (a man) and not what his sex assigned at birth was.

The same has been found for transgender women, their BSTc volume and neuron counts matched those of cisgender women. What makes this study even more fascinating is that some of the brains that were studied were on transgender women that had taken HRT in their lifetime AND transgender women that had never done HRT and just claimed their entire lives they were in the wrong body. **Their results were the same, they had BSTc volume and neuron counts that aligned with the gender they claimed to be, not their gender assigned at birth.**

Neuron Count and Sex-Dimorphic Brain Regions:

What did the study investigate & find?

Neuroimaging and histological studies have investigated whether sex differences exist in brain structure (volume, neuron density, cortical thickness, white matter connectivity) and whether these relate to sexual orientation or gender identity.

In LeVay's INAH3 study - they determined the INAH3 in heterosexual men is more than **twice as large** as homosexual men and heterosexual women. Homosexual men and heterosexual women have similar sized INAH3.

The ENIGMA Consortium mega-analysis Mueller et al., 2021) - the largest study to date with N=803 non-hormonally treated individuals - found transgender persons differed significantly from cisgender persons in subcortical brain volumes and cortical surface area but showed no significant differences in cortical thickness. The key conclusion, "Rather than being merely shifted towards either end of the male-female spectrum, transgender persons seem to present with their own unique brain phenotype." (1.) (2.)

Effects of Hormone Replacement Therapy vs Prenatal Development:

What did the study investigate & find?

This domain investigates the organizational-activational hypothesis - the distinction between permanent effects of prenatal hormones during critical developmental windows (organizational) versus reversible effects of adult hormones on already-established neural circuits (activational). These studies examine what adult cross-sex hormone therapy (HRT) can and cannot change in brain structure and whether sex-atypical brain features in transgender individuals are present before HRT (suggesting prenatal origins) or appear only after treatment.

The findings are clear, organizational effects are prenatal in humans. Phoenix et al. 1959 established the organizational-activational framework in guinea pigs, subsequent research (McCarthy et al., 2017) established that "the critical period for sexual differentiation is entirely prenatal in humans," occurring during the second trimester testosterone surge. This critical period cannot be reopened in adulthood.

What HRT can change (documented in longitudinal studies):

Effect	Transgender Men (testosterone)	Transgender Women (estrogen + anti-androgens)
Cortical thickness	Increases in some regions	Decreases in multiple regions
Subcortical gray matter	Increased	Decreased hippocampus
Total brain volume	Slight increase	2-3% decrease
White matter	Some masculinization	Variable changes

What HRT cannot change: Total brain size/intracranial volume (determined prenatally), core organizational neural circuit architecture, sexually dimorphic nuclei like BSTc and INAH3, and sex chromosome effects independent of hormones. Spizzirri et al. 2018 noted: "Total brain volume differences are congruent with sex assigned at birth in both transgender groups... brain volume differences are not necessarily related to signs of brain feminization."

Pre-HRT transgender brain findings: The ENIGMA consortium (Mueller et al., 2021) studied 386 non-hormonally treated transgender individuals and found they show "unique neurobiological phenotypes"—neither shifted entirely toward natal sex nor gender identity. Guillamon et al. (2016) noted that untreated transgender women show "complex mixtures of masculine, feminine, and demasculinized regions." The presence of sex-atypical features **before HRT** suggests prenatal rather than postnatal origins.

Natural experiments support organizational effects:

- **CAH women** (46,XX with prenatal androgen excess): ~5% develop gender dysphoria versus 0.003-0.03% in the general female population, though 94.8% retain female identity
- **CAIS women** (46,XY with non-functional androgen receptors): Almost universally develop female gender identity despite XY chromosomes and male-typical testosterone, demonstrating androgen action (not genetics alone) is required for male-typical development
- **5-alpha reductase deficiency** (46,XY raised female who masculinizes at puberty): 56-63% adopt male gender identity after pubertal virilization, suggesting prenatal testosterone imprinting predisposes toward male identity even when raised female.

Comparative Evidence from Cisgender Men Treated with Feminizing Hormones:

What did the study investigate & find?

This is a really interesting study as well - it looked at cisgender males that were given HRT for prostate cancer treatment.

Physical feminization occurs: Cisgender men on feminizing hormones experience breast development, fat redistribution, loss of libido, testicular atrophy, hot flashes, and body hair changes.

Psychological effects documented:

- Depression risk increases significantly (meta-analysis RR=1.51, p=0.0002)
- Cognitive impairment, particularly visuospatial abilities
- Emotional lability and increased tearfulness
- Masculine identity distress (challenge to existing identity)
- Quality of life impacts from sexual dysfunction

Critical finding—no gender identity changes: Despite extensive literature on ADT psychological effects, **no systematic documentation** exists of cisgender men developing gender dysphoria, and **no case reports** describe prostate cancer patients identifying as female after treatment. Cisgender men experience feminization as an *unwanted side effect* causing distress, not as an identity-congruent change.

Wassersug & Gray (2011) directly compared 12 prostate cancer patients and 12 transgender women on androgen deprivation:

Effect	Prostate Cancer Patients	Transgender Women
Feminization	Distressing/unwanted	Welcomed
Reduced libido	Negative	Accepted
Emotional changes	Shame/confusion	Comfort
Life outlook	Loss/threat	Beginning anew

HISTORICAL EVIDENCE - We have always been here:

Obviously HRT and gender affirming care hasn't been around forever, but, gender-variant individuals have. These are humans that like you and I were born in the wrong body and knew it. We have been documented across virtually ever human society for which substantial historical or ethnographic records exist.

Western concepts such as "transgender," "third gender," and "gender identity" emerged from 19th-20th century European sexology and cannot be projected onto other cultures without careful qualification. Indigenous categories frequently combine elements that Western frameworks separate (gender identity, gender expression, sexual orientation, religious/ritual function).

I'm going to go through different regions of the world and just touch on our existence there. I am sure there are plenty I will miss.

South Asia:

Hijra (India, Pakistan, Bangladesh, Nepal) - self-identification typically as "neither man nor woman" or explicitly as "third gender." The term encompasses diverse individuals including those who undergo emasculation (nirvan), those with intersex conditions, and those who identify with feminine gender without surgery.

Tritiya-prakriti **(तृतीय प्रकृति): Sanskrit "third nature/gender," appearing in Kama Sutra**

Ancient roots traceable to Sanskrit text (c. 3rd century CE and earlier), as well as medieval documentation during Mughal period (1526-1857). Colonial suppression (1857-1947) and modern legal recognition (2014-present).

Indigenous Americas:

Nádleehí (also nadleeh): "One who is transformed" or "one who changes continuously".

The Diné traditionally recognized a gender spectrum:

- Asdzáán (woman)
- Hastiin (man)
- Náhleeh/Nádleehí (feminine man)

- Dilbaa (masculine woman)

Two-Spirit (Pan-Indian Modern Term)

Historical tribal-specific terms documented in over 130 tribes include:

- Winkte (Lakota)
- Lhamana (Zuni)
- Boté (Crow)
- He'eman (Cheyenne)
- Alyha and Hwame (Mohave)

Muxe (Zapotec, Oaxaca, Mexico):

Categories: *Muxe gunaa* (effeminate muxes); *Muxe nguiiu* (masculine muxes)

Middle East:

Mukhannathun (Early Islamic Period) - Pre-Islamic Arabia through Umayyad era (7th-8th centuries CE)

Africa:

Yan Daudu (plural; Dan Daudu singular): "Sons of Daudu"

Europe:

Gallus (pl. galli or gallae—notably feminine form used): Priests of goddess Cybele who underwent voluntary castration, wore feminine clothing, jewelry, makeup, adopted feminine behaviors

I'll be honest, I found tons of other examples but I think there's enough here and I don't want to beat a dead horse, the purpose of this section is not to prove to people that reject our existence that we are real, it is to help myself and people like me if you ever are spiraling and need an anchor. *We have always been here and we will always be here.*

Reddit User: u/Transcontinental-Bicycle sent me the following doc to share, this is tons of useful info for mental health.

Hormones:

This could get really long and there's a lot of hormones that one could pay to track but I'm going to stick with the standard US clinical guidelines which recommend tracking testosterone, estradiol, progesterone (if supplementing) and then prolactin if you're exhibiting symptoms of high prolactin.

TESTOSTERONE:

- *What does it do?* It is an androgen involved in many body functions and impacts the following: libido, mood, energy levels, bone density, muscle protein synthesis and mass, fat distribution, red blood cell production, cognition, skin, body hair, scalp hair, it's the primary male hormone and makes boys.
- *Where is it produced in cismen?* Testicles produce ~95% of testosterone in cismen and adrenal glands produce a small amount.
- *Where is it produced in ciswomen?* Ovaries are the primary source, and like cismen the adrenal glands also produce some as well.
- *What do we want to do with testosterone?* We want to lower it, it's like limbo, how low can you go?
- *How do we impact it?* The primary route is medications, specifically anti-androgens, they block the action of testosterone. There are other options that are more costly like GnRH agonists - these functionally shut down signals from the brain that tell the testes to make testosterone, more used as a puberty blocker. This guide assumes the reader is an adult AMAB. There's also Cyproterone acetate that both blocks and suppresses testosterone however it comes with risks and added monitoring. Taking high enough doses of estrogen (estradiol monotherapy) will actually lower testosterone levels even without the medications listed above. Finally, the surgical option, orchiectomy is the removal of the testes, I'll go into all of this in more detail below.

ESTRADIOL (ESTROGEN):

- *What does it do?* Estradiol is the most potent estrogen in humans and it impacts nearly every major organ system. It regulates fat distribution, bone density, skin thickness / softness / hydration, it supports scalp hair growth patterns, regulates metabolism, supports vascular and heart health, influences mood, emotional processing, cognitive patterns, menstruation cycles in ciswomen, breast development, shapes pelvis and vaginal / uterine development; it's the primary female hormone and makes girls.

- *Where is it produced in cismen?* Testicles produce a small amount of estradiol, some peripheral conversion from fat tissue and skin convert testosterone into estradiol via aromatase and then the adrenal glands produce very small amounts.
- *Where is it produced in ciswomen?* Ovaries are the main producer, adipose tissue converts androgens into estrogen, placenta produces large amounts during pregnancy and then the adrenal glands produce a small amount.
- *What do we want to do with estradiol?* We want to get to ciswomen levels but **keeping in mind that higher doesn't mean "more feminization"** it does mean higher clot risks, possible mood swings and other medical concerns, I know lots of us DIY, I still would implore you to go to a lab and get your levels checked until you know proper dosage. The goal is to get between 100-200 pg / mL - some transgender women prefer slightly higher levels, me personally I hang out around 245 pg / mL - 275 pg / mL.
- *How do we impact it?* There are multiple delivery methods - oral, sublingual, transdermal and injections. Also, lowering testosterone with anti-androgens (yes they do lower T as well as block, albeit slightly) reduces competition and promotes stabler levels.

PROGESTERONE:

- *What does it do?* Progesterone is a major sex hormone in humans and it plays key roles in reproductive biology and has systemic effects on the brain, metabolism and tissues. In all humans it modulates mood, anxiety and sleep, it affects neural signaling and GABA activity, supports bone health, influences fat storage, insulin sensitivity and thermoregulation. In transgender women there is a lack of good data on this but studies have shown it can promote fuller, rounder breasts, help mood, and sleep.
- *Where is it produced in cismen?* Adrenal glands (very small amount) and testicles also a very small amount.
- *Where is it produced in ciswomen?* Ovaries, placenta (during pregnancy) and adrenal glands, levels fluctuate cyclically, low during the follicure phase (early menstrual cycle) and higher after ovulation.
- *What do we want to do with progesterone?* This is still a debate, some doctors will say don't use it, others say try it. My personal lived experience, as of writing this I have been on progesterone (micronized Prometrium) for just over 40 days, I have noticed softer skin, slower body hair growth and my breasts are definitely growing faster but I can't know for sure if this is just time on estradiol or progesterone assisting.

- *How do we impact it?* Oral or rectal administration of micronized progesterone. There are two forms of progesterone, one is less effective with higher risks; stick to micronized.

PROLACTIN:

- *What does it do?* Its primary role is in milk production and has other impacts on mood, metabolism, immune and reproductive systems. It is present in all humans.
- *Where is it produced in cismen?* The pituitary gland.
- *Where is it produced in ciswomen?* The pituitary gland.
- *What do we want to do with prolactin?* Slight elevation is normal from estrogen however very high levels are not desired as it doesn't improve feminization and can lead to headaches, vision changes, hormone imbalances and lactation. If you're experiencing these symptoms and you haven't tested your prolactin levels you should check them, extremely high levels can be an indicator of a brain tumor.
- *How do we impact it?* Estrogen, elevated stress, antidepressants / antipsychotics / GI meds can impact it. Mostly, just be aware of the possible symptoms and things to watch out for.

DIHYDROTESTOSTERONE (DHT):

- *What does it do?* DHT is a more potent form of testosterone driving facial and body hair growth, causes scalp hair loss (male-pattern baldness), increases acne and skin oil, contributes to prostate growth, helps develop genitalia and has a strong impact on libido.
- *Where is it produced in cismen?* DHT is produced by converting testosterone using the enzyme 5a-reductase in multiple areas (skin, hair follicles, prostate, and testes although most conversion is in tissues, not the testes).
- *Where is it produced in ciswomen?* Ciswomen DO produce DHT but very low levels, mostly in the skin / hair follicles, liver, adrenal glands and ovaries. Again, very low levels compared to cismen.
- *What do we want to do with DHT?* Reduce, remove, get rid of it, stop conversion of T → DHT.
- *How do we impact it?* Reduce testosterone AND halt DHT conversion (finasteride / dutasteride).

Medications:

TESTOSTERONE SUPPRESSANTS & ANTIANDROGENS:

TL;DR - Suppressants reduce total testosterone production. Antiandrogens reduce testosterone's effects - either by blocking androgen receptors or by reducing testosterone → DHT conversion.

What to expect: When you reduce / suppress / block testosterone production and receptors you will see some major changes in your body, albeit slowly. Within the first 1-3 months expect to see less spontaneous erections, reduced libido and less oily skin. You'll experience nipple changes, sensitivity and possibly breast buds depending on how you respond. Body and facial hair growth will slow (though existing hair takes much longer to thin out). Between 3-6 months, you'll start losing muscle mass, fat begins to redistribute away from your abdomen to your hips, thighs and butt though this process takes 2-5 years to complete. Your skin gets softer, breast development begins (driven primarily by estrogen, but enabled by low testosterone).

EMOTIONS: This has to be talked about, you're going to feel different. Lower testosterone often means less aggression and anger and more frequent crying. Many transgender women (myself included) describe feeling more emotional, not in a negative way, you just feel your feelings more and in my opinion I feel as though I have better access to the spectrum of emotions I am capable of feeling.

Onto the medications…

Medicine & Brand Names (GnRH Agonists): Leuprolide (Lupron) / Goserelin (Zoladex) / Triptorelin (Trelstar)

How they work: These medications initially stimulate the pituitary gland which actually causes a SPIKE in testosterone production, this spike is temporary and usually lasts 1-2 weeks. Then the gland actually shuts down from overstimulation - a process called downregulation. The result is dramatic suppression of hormones that signal the testes to produce testosterone. Notable mention: there are some medications that bypass the spiking phase and go directly to suppression such as degarelix.

Efficacy: These drugs are incredibly effective, studies show 89% reduction in testosterone from baseline - typically from around 432 ng/dL down to 47 ng/dL within 3-6 months. This compares to only 55% reduction with non-GnRH antiandrogens. Testosterone stays suppressed below 50 ng/dL long term.

Delivery Methods: Injections - subcutaneously (fat tissue) or intramuscular (muscular tissue) at monthly intervals or every three months. There is also a yearly implant under the skin (histrelin/Supprelin LA).

Common Side Effects: Hot Flashes, injection site reactions, headaches, mood changes, fatigue, weight gain and decreased libido.

Serious Risks: Long-term use causes bone density loss, similar cardiovascular risks as any testosterone-suppressing therapy and possible glucose intolerance progression.

Costs: $$$$$ - These medications are ridiculously expensive ranging from $800 - $1500 / month and the implants can cost $30k - $40k per year.

Sources: 1. 2.

Medicine & Brand Names: Spironolactone (Aldactone)

How it works: Spironolactone operates through multiple mechanisms. It blocks androgen receptors, preventing T and DHT from binding to cells and exerting their masculinizing effects. It also weakly suppresses testosterone synthesis.

Efficacy: Spironolactone is a moderate antiandrogen. A prospective study found only about 66% of transgender women achieved female-range testosterone levels (below 50 ng/dL) when taking 100-200mg of spironolactone. Another randomized controlled trial found that after 12 weeks only 19% of spironolactone users achieved full testosterone suppression compared to 90% of users taking cyproterone acetate. **No difference in breast development between spironolactone & cyproterone acetate users**

Delivery Methods: Oral - most prescribers start at 25 - 50mg daily and increase every 2-4 weeks based on labs and tolerability. Standard maintenance is 100mg - 200mg daily typically split into 2 doses (morning / night). Some go up to 300mg - 400mg but higher risks of side effects.

Common Side Effects: Increased urination (it's a diuretic), thirst, occasional dizziness or lightheadedness and initial orthostatic hypotension (feeling faint when standing quickly). These typically improve over time.

Monitoring: You should get a baseline complete metabolic panel, potassium, creatinine, testosterone and estradiol before starting if you're able to. During treatment Potassium and renal function at 3 months, 6 months and then every 6-12 months after that once levels are stable.

Serious Risks: Hyperkalemia can cause muscle weakness, paralysis and potentially fatal cardiac arrhythmias - this is very rare but this is why we monitor our potassium levels.

Critical Drug Interactions: ACE Inhibitors - (lisinopril, enalapril) or ARBs (losartan, valsartan): Additive hyperkalemia risk - potentially fatal. Do not take potassium supplements. NSAIDs reduce spironolactone's efficacy (effectiveness) and increase kidney damage risks, use tylenol (acetaminophen) instead unless directed otherwise by your doctor. Worth mentioning Lithium has the possibility for increased lithium toxicity.

Costs: $ - Cheap af, $10 / month, if you have insurance (I am in the USA and will always be speaking from my experience as an American) - mine covers it 100% and it's $0 / month for me.

Medicine & Brand Name: Bicalutamide (Casodex)

How it works: Unlike spironolactone, bicalutamide is a pure androgen receptor antagonist - it binds very tightly to androgen receptors, completely blocking testosterone and DHT from activating them. **IT DOES NOT REDUCE TESTOSTERONE LEVELS.** Your bloodwork will show normal or even elevated testosterone levels, but that T can't do anything because all its receptors are occupied. Some evidence suggests the blocked T gets converted to estrogen, potentially enhancing feminization.

Efficacy: There is limited information on transgender women efficacy, the available data is very promising. A study at Riley Hospital found that 84.6% of transgender women had breast development within 6 months on 50mg daily bicalutamide alone. A larger study at Indiana University found 90.4% reported breast development at first follow-up.

Delivery Methods: The standard dose is 50mg once daily, some protocols use 25mg daily or even twice weekly dosing - the drug has a 6-7 day half-life.

Common Side Effects: Hot flashes (reduced when combined with estrogen), breast tenderness (expected), Gi symptoms in about 15%, decreased libido and photosensitivity. Source: 1.

Serious Risks: Hepatotoxicity (liver damage) is rare but potentially fatal and has been reported, typically within the first 3-4 months. Strict liver monitoring is **required** for this medication. **Note - studies mentioned above found no hepatotoxicity over the course of years. Interstitial lung disease, rare and higher risk at higher doses, bone density concerns with long-term use and cardiovascular risks reported (note this is at higher doses used to treat prostate cancer 150mg vs 50mg).

Critical Drug Interactions: Bicalutamide inhibits CYP3A4 so it can increase many levels of medications (2.). Statins, benzodiazepines and calcium channel blockers. **Warfarin interaction is significant with increased bleeding risks.** (3.)

Costs: $$ - Generic costs $15-25 / month brand names like Casodex are over $3k / month, but no reason to use the brand name over generic.

Medicine & Brand Name: Cyproterone acetate (CPA) - Androcur or Diane / Diane-35

How it works: For my USA people, this is not available here because the FDA hasn't approved it (hepatotoxicity risks) - however it is the most common antiandrogen outside of our country. CPA is both a potent antiandrogen and a progestogen. It blocks androgen receptors AND reduces testosterone production through negative feedback on the pituitary, the dual mechanism makes it highly effective.

Efficacy: The landmark ENIGI study (n=882) found that CPA suppressed testosterone dramatically regardless of dose when combined with estrogen. Here's what's remarkable: 10mg CPA was equally effective as 100mg for testosterone suppression.

Delivery Method: Oral, 10-12.5mg daily is now considered the appropriate dose.

Common Side Effects: Decreased HDL cholesterol, elevated prolactin, potential for depression (especially with preexisting depression), weight gain.

Serious Risks: Hepatotoxicity is possible at doses for testosterone suppression however these are rare, liver monitoring is a must. Meningioma (brain tumor) is a serious potential risk. A French study found at 60mg+ had a 21.7-fold increased risk, at 36-60mg 11.3-fold increase and below 12mg not significantly elevated. Interestingly enough, meningiomas may regress after stopping CPA on their own.

Costs: $ - Mostly affordable - $10 - $50 per month where available for the medication, monitoring however can be costly if brain scans are not covered.

Medicine & Brand Name: Finasteride (Propecia) & Dutasteride (Avodart)

How it works: DHT Inhibitors - both of these are 5-alpha reductase inhibitors however finasteride ONLY blocks type 2 and dutasteride blocks type 1 & 2.

If you can get on dutasteride, it is the better choice assuming you tolerate it. 90-98% blocking of DHT in serum (vs 70% for finasteride) and 51% in scalp tissue (vs 41% in finasteride).

Efficacy: Finasteride is more commonly used, high efficacy in assisting with recovering from male-pattern baldness, very slight impact to body hair growth. Dutasteride, as mentioned above, has higher efficacy for scalp hair repair as well as additional DHT blocking capabilities, both are still excellent choices.

Delivery Method: Finasteride - oral 1mg per day, higher doses have higher risks and efficacy is not significantly changed. Dutasteride - oral capsule taken 1x per day.

Common Side Effects: Finasteride - decreased libido, erectile dysfunction, decreased ejaculate volume and breast tenderness and enlargement. Note all of these are rare. Dutasteride common side effects are very similar to finasteride, they are rare and include decreased libido, erectile dysfunction, decreased ejaculate volume, breast tenderness & enlargement as well as sperm count reduction (25-28% decrease documented).

Serious Risks: Persistent sexual dysfunction - some patients experience persistent sexual issues including numbness that lasts after finasteride is discontinued. The data on this is skewed as the current reports come with selection bias. This is for BOTH medications.

Costs: $ - Finasteride $8-12 / month, no reason to take brand name, generics available. Dutasteride slightly more - $12-17 / month.

Medicine & Brand Name: Progesterone comes in 2 forms, micronized progesterone (Prometrium) and then synthetic progestins (Medroxyprogesterone acetate, MPA / Provera).

How it works: This is really not an easy one to cover, there's a lack of studies, data and inconclusive information out there, however I do take micronized progesterone. I'll start by saying I'm not going to recommend synthetic progestins, they are higher risk and lower efficacy and there is no point in digging into them. If you're going to take progesterone you should only be consuming micronized.

The core controversy:

Proponents argue: Cisgender women have both estradiol and progesterone. If the goal of HRT is to replicate female hormone levels, shouldn't transgender women also have progesterone? Further, progesterone is essential for complete breast development in cisgender females—the transition from Tanner stage 3 (conical, early development) to Tanner stages 4-5 (mature, rounded breasts). Without progesterone, some trans women report their breast development "stalls" at an immature stage. (1.)

***2024 landmark study I just found on progesterone has very promising results for breast development - the study did determine that genetics remains the strongest predictor of final size, higher body weight correlates with better development and caloric restriction undermines feminization by preventing gynoid fat deposition.

"Among our 90 participants we repeatedly used 3D-scanning techniques to measure breast volume and saw up to an increase of 37%. Crucially, we also saw that the study participants were more satisfied with the size, shape and the growth of their breasts," adds Raya Geels, PhD candidate at Amsterdam UMC and the study's first author.

Guidelines are cautious: WPATH SOC8's systematic review, conducted by Johns Hopkins researchers, was **"unable to uncover any quality evidence supporting a benefit of progestogen therapy for transgender women." (2.)** They also identified potential harms: increased VTE risk with some progestogens, decreased HDL cholesterol with long-term use. **These risks are not associated with micronized progesterone as of today.**

Dr. Joshua Safer, a co-author of SOC8, explained: "We didn't feel we had enough scientific evidence to make a specific recommendation either against or in favor of the use of progestogens... We didn't want to ignore this important area, given the fact progestogen use is widely promoted on the internet."

The Endocrine Society (2017) acknowledges that "current evidence does not indicate that progestogens enhance breast development in transgender females, nor does evidence prove the absence of such an effect." (3.)

This is the frustrating truth: we genuinely don't know if progesterone helps.

Efficacy: This is my lived experience - I started micronized progesterone taken rectally on November 4, 2025, I started HRT May 14, 2025. Today is December 12, 2025, in my time on progesterone I have experienced faster / fuller breast tissue growth, softer skin, slower body and facial hair regrowth and my wife will not stop telling me how much more scalp hair I have “all of the sudden.” I waited until I was through tanner stage 2 breast development and into tanner stage 3 to reduce tubular breast shape risk (again, these are theories, not necessarily proven, my lived experience). I will go into this more in the breast section.

Delivery Method: Oral or Rectal are the 2 methods, again I am only talking in regards to micronized progesterone (Prometrium). If taken orally - there is extensive first-pass metabolism; produces high neurosteroid metabolites causing ***significant*** drowsiness at bedtime. Levels are shown to be less stable when taken orally and spikes and troughs are more frequent. Rectally - bypasses first-pass metabolism - 2x higher bioavailability with less sedation, more stable levels, less liver risk and *from what I have read* higher efficacy for feminization. I cannot highlight enough this is my opinion from lived experience, speaking to other transgender women and finally acknowledging how it is processed in the body rectally vs orally.

Common Side Effects: Drowsiness / sedation (more common in oral), dizziness, breast tenderness, bloating, mood changes (**IMPORTANT - see serious risks)**, headaches, not evidence based but in community discussions as well as my own experience - improved libido.

Serious Risks: Depression / suicidal ideations can get worse from micronized progesterone, if you start taking it be mindful of this, I journaled daily and recorded my mood / energy levels etc. VTEs - there doesn’t appear to be evidence of increased VTE risk in micronized progesterone however in synthetic progestins this risk is very real and they should be avoided. As of today it is unknown if breast cancer risk is impacted by progesterone in transgender women.

Costs: $$ - Generic Prometrium $5 - $33 for 30 - 90 capsules. I believe at Costco where I got mine I paid $30 for 90.

Estrogen / Estradiol (E2):

Medicine & Brand Name: Estradiol / Estradiol Valerate / Estradiol Cypionate - There are a lot of brands, delivery methods so I'm not going to list them all here.

How it works: All estradiol formulations achieve feminization when dosed appropriately - however - this does not mean they are all equal in efficacy, bioavailabilities, risks and stabilities. Estradiol is what causes feminization, the thing we're here for, when testosterone is suppressed / blocked and estrogen is at feminizing levels (100 - 200 pg/mL) you can expect breast development, fat redistribution, skin softening, decreased muscle mass, decreased facial & body hair, changes to scalp hair, decreased libido & erections, emotional changes.

Choosing a delivery method: The practical synthesis

Factor	Oral	Sublingual	Patches	Injectable
Cost	Lowest ($10-20/mo)	Lowest ($10-20/mo)	Moderate ($30-40/mo)	Moderate-High ($30-250/mo)
VTE Risk	Highest	Unknown (likely intermediate)	Lowest	Intermediate
Level Stability	Moderate	Poor (peaks/troughs)	High	High
Convenience	Daily pills	Multiple daily doses	Weekly patch change	Weekly injection
Market Availability	Excellent	Excellent	Good	Variable (shortages historically)
Best for T suppression	Usually needs antiandrogen	Usually needs antiandrogen	Usually needs antiandrogen	Can work as monotherapy

***I've been questioned on pricing for injections - please note there are more than one type of injectable hormone therapy and some are more expensive than others (estradiol cypionate) then there's insurance vs no insurance, it is a wide spectrum.

The above chart is the cleanest way I could try to put this comparison together, there's tons of data and resources out there on this, here's where I'm getting my information from:

Target Hormone Levels:

https://academic.oup.com/jes/article/9/5/bvaf004/7965163?login=false

https://pmc.ncbi.nlm.nih.gov/articles/PMC11957913/

Oral Estradiol information:

https://transfemscience.org/articles/oral-vs-transdermal-e2/

https://pubmed.ncbi.nlm.nih.gov/26544651/

https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2013/04/postmenopausal-estrogen-therapy-route-of-administration-and-risk-of-venous-thromboembolism

https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2013/04/postmenopausal-estrogen-therapy-route-of-administration-and-risk-of-venous-thromboembolism

Sublingual Estradiol Information:

https://www.sciencedirect.com/science/article/abs/pii/S1530891X21013744

https://pubmed.ncbi.nlm.nih.gov/33439749/

Transdermal Patches:

https://www.ahajournals.org/doi/10.1161/circulationaha.106.642280

http://endocrinepractice.org/article/S1530-891X(22)00898-9/fulltext

https://pmc.ncbi.nlm.nih.gov/articles/PMC9399360/

Injectable Estradiol:

https://pubmed.ncbi.nlm.nih.gov/39735380/

https://pubmed.ncbi.nlm.nih.gov/38782202/

https://pmc.ncbi.nlm.nih.gov/articles/PMC11957913/

https://www.sciencedirect.com/science/article/pii/S1530891X24005305

https://www.ncbi.nlm.nih.gov/books/NBK593552/

https://transcare.ucsf.edu/guidelines/feminizing-hormone-therapy

https://pmc.ncbi.nlm.nih.gov/articles/PMC5908424/

https://transcare.ucsf.edu/guidelines/feminizing-hormone-therapy

Personal Summary on Medications:

I was 40 years old when I took my first dose of HRT, I was experiencing severe male-pattern baldness, dysphoria in so many ways and I had no expectations that I would ever pass and I had little hope that my body would actually change. I started HRT to *feel better.* It wasn't about physical changes for me at that time.

These are the medications & doses I started out on:

- 6mg / week subcutaneous injection estradiol valerate
- 50mg / day oral spironolactone
- 1mg / day oral finasteride
- 5% topical minoxidil 2x per day

When I hit ~6 months of HRT and my breasts were past tanner stage 2 I started:

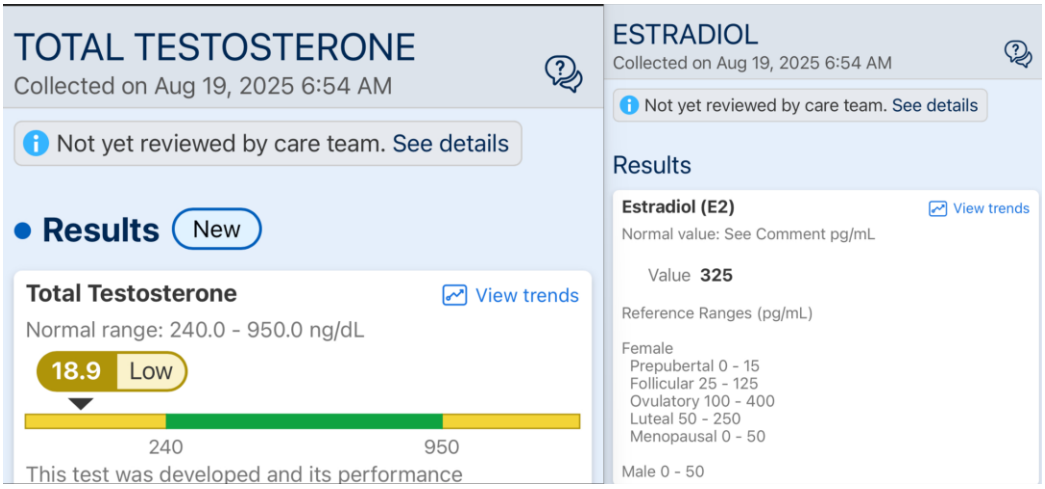
- 100mg micronized progesterone (Prometrium) rectally administered - for me I do this as the last part of my bedtime routine after brushing my teeth / flossing etc. I use a tiny drop of water based lubricant and then go straight to sleep. (X-Lube) - **I am sure I will mention this again but, I cannot recommend this product enough.**

I went straight for subcutaneous injections of estradiol valerate for a number of reasons that worked for me, my health and my own opinions from my own reading.

- Affordability - the dose I am on, 1 vial lasts 8 months and needles are cheap.
- Convenience - I love doing one injection a week, it takes me 5 minutes every Wednesday morning and then I don't think about it again.
- Stability - my lab work confirms the data I've read, my levels are consistently in feminizing ranges. I remember when I first started injections around day 4 I would start to crave another shot, it was the strangest feeling. I didn't want more just "to want more" - I wanted more because I felt like I didn't have enough. As my journey continued, my testes shrunk, my testosterone production tapered, the estradiol didn't have to compete as much to be my primary hormone and these cravings went away.
- Efficacy - I've read countless stories of transgender women trying sublingual / oral / transdermal and not happy with their results, then they switch to injections and voila - their feminization takes off.

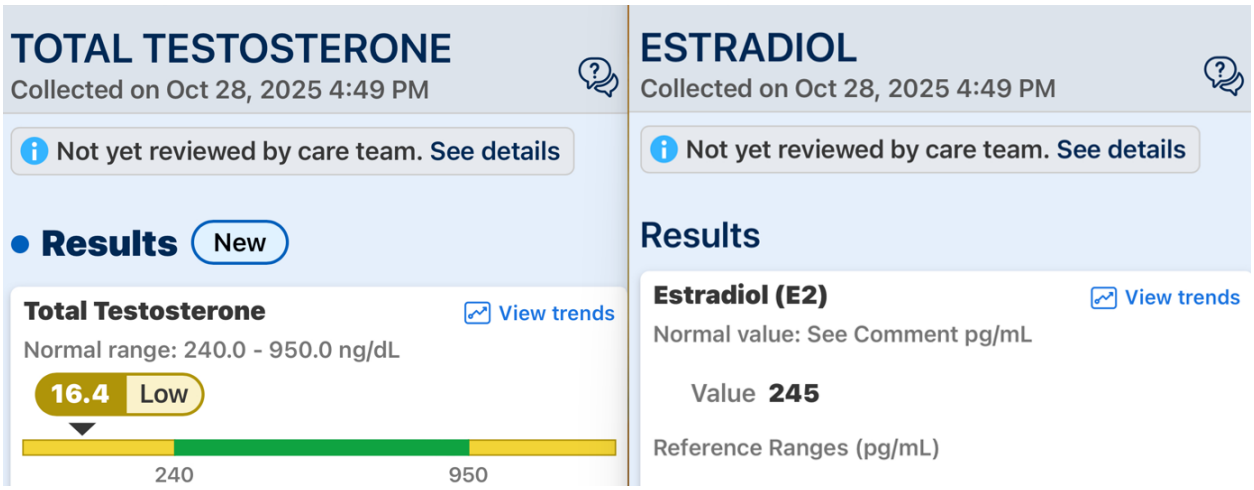
My Actual Labs:

3 Months:



My testosterone levels were optimal however my estradiol levels were a bit high, my doctor and I agreed to reduce my dosage from 6mg / week subcutaneous injection → 5mg / week.

6 Months:



My doctor felt okay with my levels here, as did I, physical results & changes were happening so dosage for now is locked in. I will update labs with progesterone numbers once I get them at the end of January.

Breast Development:

This section will be detailed and lengthy, I'm putting a sub-index for this section as I know to me it is incredibly important and an area that most of us want to understand and are hyper insecure about (at least I am).

Introduction

Before we dig into all the information, I am tracking my own breast development, the slideshow of me below is in chronological order: first photo was November 2024 and preHRT → starting HRT May 14, 2025 → most recent images were last night, December 16, 2025.

*****NSFW Disclaimer these are topless images of me being shared to show what the stages look like on a 40 year old transgender woman*****

I did include boymode images in these photos. I use Target brand All-In-Motion sports bras to flatten my chest for days that I go to work.

On slide four, there's an image of a 3D silicone sculpture. My wife and I were visiting Ann Arbor and I thought this was a really cool display of the female human body and felt it relevant to this section.

There are 2 sets of images of me boymoding, one is very early like 1 week into HRT, I started wearing sports bras because my nipple sensitivity was insane. The second set of images is to show I still boymode fine even with fairly developed breasts.

I will continue to add images to the slide show as my breasts develop.

Nova's Breast Development

I want to touch on gynecomastia. I developed gynecomastia when I was 12, it stuck with me my entire life and I was always self-conscious about it. I considered removing it multiple times in my life, I am grateful that I did not do that.

There are no comparative studies examining whether transgender women with pre-existing gynecomastia end up with larger final breast volumes compared to those who start HRT without any existing tissue. I can tell you that UCLA Health research notes that gynecomastia shows only "ductal and stromal hyperplasia," while HRT-induced tissue in transgender women develops "breast ducts, lobules, and acini, similar to that of biological women."

The last thing I will mention about gynecomastia is if you had gynecomastia in your lifetime and then had that tissue surgically removed, you should plan on surgical

implants if you want breasts. By removing that tissue it will prevent breasts from developing unfortunately and I am very sorry if this is your situation.

What to Expect: The Reality of Transgender Women's Breast Development

The purpose of this section is to set your expectations based on evidence and my lived experience. This isn't to say ALL people have the same experience as me, this isn't to say it is impossible for a transgender woman to develop breasts smaller or larger than what I present below, I'm using known studies, averages and lived experiences. *Everybody is a little different.*

Breast development in transgender women follows the same biological pathways as cisgender puberty but typically results in smaller final size—most achieve Tanner stage 2-3 and A-cup range after 2-3 years. The most significant growth occurs in the first 6-12 months, driven by estrogen receptor activation and adequate testosterone suppression.

Some sources on final breast size:

(1.) Median breast volume was 115 mL (IQR, 68; 203), ie, bra cup size < A. Breast volume was 47 mL (95% CI, −9; 104) larger in the late PS group compared to early PS but this difference was only 4 mL (95% CI, −67; 75) after correction for fat percentage. Breast volume in the adult group was comparable to the early and late PS groups (adult vs early PS 27 mL [95% CI, −28; 83] and adult vs late PS −20 mL [95% CI, −80; 40]). In total, 68% of subjects were satisfied with breast size (57% of early PS, 76% of late PS, and 70% of the adult group).

(2.) Breast volume increased by 72 cc (95% confidence interval [CI], 48-97) to 100 cc (standard deviation 48). This resulted in a cup-size <A-cup in 71% of the participants. Although the change in breast-chest difference plateaued after approximately 9 months, sustained increase in breast volume was observed during the 3-year observation period. Sternal notch to nipple distance increased by 1.3 cm (95% CI, 0.9-1.7) and internipple distance increased by 1.0 cm (95% CI, 0.4-1.5). At least 58% of trans women were satisfied with the gained breast size.

Lived Experience: I think I am one of those transgender women that hit the genetic lottery, my breasts are growing quite well and from everything I understand I have already entered tanner stage 3 and I am on my way to 4.

Transgender women that start HRT as a fully grown adult have larger chests and torsos (structurally) than cisgender women typically. This creates a larger area for tissue to spread out over - this makes measurements a bit tricky. For example, my measurements as of writing this are:

Underbust: 34.25”
Overbust: 39.75”

Based on these measurements I have a 34” band and I would be a 34DD in the US if you take the under → overbust differences. My breasts have not reached their final shape and I have years of development to go, but there is no way I could fill out a DD bra today. Honestly I hope they don’t ever end up that big, but that’s me, I’d love a perky full b cup. A girl can hope.

My point for sharing this is that for a lot of transgender women overbust / underbust ratios are not a reliable indicator of cup size due to our larger chest sizes (and staging of breast development obviously).

******IMPORTANT****** Breasts will swell and shrink, this is totally normal for developing breasts and fully sized breasts and is something cisgender women experience as well. This can be due to hormonal fluctuations, initial growth phase, body weight and fat distribution, genetics and anatomy etc. If you’re on HRT you will most likely experience this.

The Biology: Tanner Stages & Developmental Process

This is all about hormones - our bodies are shaped by them, including boobs. Estrogen initiates breast development by binding to estrogen receptor-alpha (ERα) in breast epithelial tissue, triggering downstream signaling that stimulates ductal proliferation. This receptor activation produces amphiregulin, a paracrine mediator that activates epithelial growth factor receptors in surrounding stroma, promoting ductal elongation through terminal end bud proliferation.

The result is genuine mammary glandular tissue—containing lobules identical to those in cisgender women—not the gynecomastia tissue sometimes seen with other hormonal conditions.

Multiple hormones coordinate this development beyond estrogen alone. Growth hormone and insulin-like growth factor-1 (IGF-1) enable ductal morphogenesis. IGF-1 synergizes with estrogen and permits its action on breast tissue.

Prolactin contributes to lobuloalveolar development, and its levels often rise during feminizing HRT due to estrogen's effect on pituitary secretion. Progesterone induces ductal branching, alveolar bud formation, and contributes to mature breast architecture. (1)

The physical timeline follows a predictable pattern. Breast buds typically appear within 3 - 6 months of initiating HRT (2). These feel like small, firm, disc-like areas directly beneath the nipple-areola complex. Maximum development occurs during the first year, with growth continuing gradually for 2-3 years before plateauing.

Tanner Stages:

The tanner staging system classifies breast development based on shape and structure rather than size, using nipple, areola and tissue characteristics to track progression through 5 distinct stages.

Stage 1: represents the pre-pubertal state—no glandular tissue palpable, flat chest with small nipples. For transgender women, this is the state before initiating HRT.

Stage 2 (breast budding): marks the first visible development: small, firm nodules—typically nickel-sized—form directly beneath the areola. The areola may appear slightly puffy or raised. This stage typically begins **3-6 months after starting HRT** and lasts 6-12 months. Tenderness is often most intense during this phase. One

breast frequently develops before the other; this asymmetry is normal (for me the left breast is consistently larger than the right, left side is more commonly larger).

Stage 3: brings breast tissue extending beyond the areola boundaries. The mound becomes rounder and more pronounced, visible when clothed. The areola enlarges but remains on the same plane as the surrounding breast tissue. Most transgender women reach this stage **6-18 months into HRT**, and this is where development commonly stabilizes.

Stage 4: features a distinctive "double scoop" appearance—the areola and nipple form a secondary mound projecting above the main breast contour. Upper and lower breast poles become more defined. Reaching this stage typically requires **12-24+ months** of HRT; ***many transgender women never progress beyond Stage 3***.

Stage 5: represents mature development. The areola flattens back into a single, smooth breast contour with darker pigmentation and well-developed nipple papillae. **Most trans women do not achieve this stage with HRT alone**; estimates suggest fewer than 20% reach Stage 5 compared to approximately 95% of cisgender women.

Managing the Experience

Breast buds are composed of actual mammary progenitor tissue - not fat - and represent the **irreversible foundation** of breast development. They feel like firm, disc-shaped nodules approximately 1-2 centimeters in diameter, located directly beneath the nipple-areola complex. This tissue feels distinctly different from the surrounding chest wall.

The budding phase brings all sorts of sensations - tingling, soreness, sensitivity to touching / bumping (doors hurt), itching at times, the pain fluctuates with hormone levels and stages of development.

The active budding phase typically lasts 3-6 months, with transition to Tanner stage 3 occurring around 6-12 months. Tenderness generally persists throughout periods of active growth but typically diminishes as tissue matures. Some individuals experience asymmetric development initially, one breast budding before the other, which evens out over time, this is totally normal.

Things that you should be concerned about and should speak to your doctor about if you experience them are persistent pain, hard fixed lumps that don't move with palpation, skin dimpling or puckering, bloody nipple discharge or a complete absence of budding after 6 months of adequate hormone levels. Hard immovable masses or lumps not centered under the areola should be evaluated immediately by a doctor.

Binding:

Transgender women bind their chests for numbers valid reasons that deserve non-judgmental acknowledgement. Personally - I have never used a binder but I do wear very tight sports bras when I'm at work because of my own insecurities and concerns of being clocked and harassed at work and outside of work. I am nowhere close to passing or not looking like a dude with boobs right now, I hope that changes, I'm terrified it won't but I have faith in HRT and time.

Some transgender women may bind for sports / athletics, or when we navigate hostile environments. The bottom line is, binding / tight sports bras are a very real fact of a lot of transgender women's experience and I wanted to highlight how to do it safely.

First the risk - there is not a ton of research on this, we do know that even with binding breast tissue will form regardless but it does impact skin elasticity and from anecdotal evidence (online stories I have read) - it can impact shape.

Never bind with: ACE Bandages, duct tape or plastic wrap, these can do damage to your body such as broken ribs, fluid accumulation in lungs, restricted breathing; you should always be able to take a deep breath without pain or difficulty.

Do bind with: Sports bras that fit properly, commercial chest binders such as gc2b, Underworks and Spectrum Outfitters.

Frequency: Binding should never be done for 8+ hours, you need to take it off after 8 hours. At least 1 day / week should be spent out of the binder.

Growing breast tissue is not comfortable in my experience and at times can be somewhat painful. Personally, I'm a bit of a masochist now since I get happy when my breasts hurt because I know there's new growth forming. I try to avoid taking medications because that's just who I am.

Only you know your current medical situation, acetaminophen (Tylenol) is the safest first line pain reliever for those on HRT (1). It has no known interactions with estradiol, spironolactone, bicalutamide, progesterone, or finasteride.

NSAIDS (ibuprofen, naproxen, aspirin) require caution, particularly for spironolactone users. The combination increases hyperkalemia risk (dangerously elevated potassium).

Warm compresses help with general soreness, cold therapy is best immediately after acute impacts applied sporadically for 48 hours to reduce inflammation. Well-fitted supportive bras minimize discomfort from breast movement for a lot of transgender women.

Personally - I don't wear a bra as often as I can, I work from home a few days a week + the weekend gives me 4 days a week that I am 100% braless, I just prefer it.

Bra Sizing:

I have general anxiety disorders and I don't come close to passing and I hate shopping for clothing / bras right now. I struggle with this, I have no confidence in this

realm so my lived experience isn't great. I have read up on this for shopping online and this is what I have found.

First you need accurate measurements, get a tape measure if you don't have one already, you can get it at a hobby store or online.

Underbust (Band Size): wrap a soft measuring tape around the ribcage directly under where breast tissue meets the body, keeping the tape snug but comfortable—you should fit a finger underneath. Note this measurement in inches and round to the nearest even number to get your band size.

Bust Measurement: either lay flat or lean forward at 45 degrees, wrapping the tape around the fullest part of the bust without compressing tissue. The tape should rest naturally across the breast's fullest point (2).

Calculate your size: the band size is your underbust measurement rounded to the nearest even number. Cup size is determined by the difference between bust and band measurements—1 inch equals an A cup, 2 inches equals B, 3 inches equals C, and so on.

A critical concept many miss: **cup size is relative to band size, not absolute**. A 32D has smaller cups than a 38D—the letter indicates the difference between band and bust, not an absolute volume. This means **sister sizing** works: going up a band size while going down a cup size (or vice versa) maintains the same cup volume. For example, 32D = 34C = 36B holds the same cup volume on different band frames (3).

I touched earlier on transgender women having different sized ribcages due to our bone structures from testosterone. This makes bras challenging, and sizing. My advice is to find a brand you like, get a few sizes that are in the right ball park based on measurements & calculations and then find your size by that brand / style.

Supporting Optimal Development & Progesterone

Believe it or not, the primary restrictor of breast development is not due to low estrogen levels and is more likely due to higher testosterone levels (1). Exceeding the recommended / target estrogen range (100 - 200 pg/mL) does not show any evidence of faster or more feminization. Get your T under control.

The most significant growth occurs in the first 6-12 months, with continued but slowing development for the 2-3 years. The best predictor of breast size / shape is genetics - if you have sisters or know your biological mother, this is where to look.

A theory on oral estradiol creating estrone through the liver first-pass metabolism - there are concerns in the community that this will impede breast development. A 2022 study found that "change in fat percentage and breast development in transgender women were not associated with estrone concentrations nor with administration route." WPATH Standards of Care Version 8 explicitly recommends against monitoring this ratio due to lack of supporting evidence (1).

Nutrition:

Okay I'm going to be a little vulnerable here and talk about my personal eating disorders. I struggle with this - I actually struggled with this as a teenager as well, long before I understood that I am transgender. I always wanted to be tiny, lean, not masculine, not muscular. I cannot tell you how many times in my life my Mom has given me shit about being too thin (excluding when I was obese and drinking).

Eating disorders are more prevalent in our community, an estimated 8.1% of transgender women have an eating disorder. I've talked openly with a few friends about this and I wouldn't be surprised if that % is actually higher.

Personally, I do restriction / binge cycles. I know it isn't the healthiest and I accept that about me, I have been eating this way for over a decade.

I always eat at least 1200 calories a day, even if I do not want to. I never restrict myself for days, I almost always skip breakfast and lunch unless there are work events or if we have a family event. I prefer to consume my calories between 4pm → 10pm…except lately.

I wake up every night between 1am - 3am starving, regardless of how much I eat during the day. I have had days where I put down 3k calories and I'll still wake up in the middle of the night. For me, it's peanut butter, I love it. Most nights I get up and make a peanut butter sandwich in the dark, I eat it, have some water and then go back to sleep.

Having shared that - let me actually talk about nutrition and caloric requirements.

Adipose tissue is an active hormone-producing organ that produces estrogen via the aromatase enzyme - in postmenopausal women, fat tissue contributes up to 100% of circulating estrogen. Research from the Journal of Clinical Endocrinology & Metabolism found that "breast development seems to be better in transgender women who have a higher body mass index," and weight gain in early HRT phases appears beneficial for both fat distribution and breast development (2).

Caloric restriction directly undermines feminization because new gynoid fat cannot deposit during deficit. The body cannot simultaneously lose weight and deposit fat in feminine patterns (hips, breasts, thighs). While glandular breast tissue may still develop during moderate restriction, overall breast size will be limited without the fatty tissue component that comprises most breast volume. Very low body fat (below approximately 22%) is associated with reduced estradiol levels, further impairing hormonal effectiveness. (3)

On diet - you need to hit your macros, you need calories based on your activity level, you need fat, protein, carbohydrates - you've got to eat if you want to grow breasts and if you want to give your body enough energy to redistribute fat.

Reducing meat can lower testosterone, I personally don't eat much, I don't ever eat pork or red meat, I only eat chicken and turkey and it isn't daily. I use whey or pea protein powder depending on what is on sale. I do take psyllium husk daily for fiber, I try to eat eggs, veggies, and I avoid processed foods for many reasons but I do consume them just not regularly.

Peanut butter is my favorite food, I eat 400-600 calories a day I would estimate.

I'm going to do a section on supplements as well as harmful substances eventually. I can tell you with absolute certainty that alcohol and tobacco are not your friend if your goal is to optimize HRT feminization.

Progesterone:

I already covered this pretty extensively in the medications section so I'm not going to spend a ton of time on it here.

A randomized controlled trial from Amsterdam UMC presented at the 2024 EPATh congress in Hamburg provides the strongest evidence to date on progesterone's effects. The study enrolled 90 transgender women who had undergone surgical testosterone suppression, randomly assigning them to receive either 200mg or 400mg oral micronized progesterone nightly in combination with baseline or increased estradiol doses over a period of 12 months(1) (2) (3).

The results were significant: **participants receiving progesterone experienced up to 37% increase in breast volume** measured via 3D scanning technology (4). They also reported greater satisfaction with breast size, shape, and growth compared to controls.

The widely circulated theory that **starting progesterone before Tanner stage 3 causes tubular breast development remains scientifically unsubstantiated**. This claim extrapolates from animal studies from the 1940s-1970s and clinical guidelines for cisgender girls with Turner syndrome—no randomized trial has tested this hypothesis in transgender women. The supporting evidence is indirect at best: animal studies showed high-dose progesterone inhibited ductal growth in rabbits, and guidelines for inducing puberty in girls with ovarian failure recommend delaying progesterone for 2 years after starting estrogen. Multiple reviews explicitly note that while this is "biologically plausible," **"a randomized study has not been done,"** and **"limited data link early progesterone exposure to suboptimal breast development."** (5)

The current consensus: many clinicians recommend waiting until Tanner stage 3 (typically 6-12 months of estrogen) out of precaution, but this represents cautious clinical practice rather than established evidence. WPATH Standards of Care Version 8 found insufficient evidence to make recommendations either for or against progesterone supplementation. Those considering progesterone should discuss timing with their prescribing provider, understanding that the tubular breast concern is **theoretical community wisdom rather than proven medical fact**.

I personally waited until after 6 months of HRT, my doctor refused to offer it prior to then anyway. I am quite content with my breast growth thus far, this morning (December 17, 2025) was injection #32. I still have 20 more injections to hit my 1 year

mark and I plan to eat as cleanly and in a caloric surplus or as close to that as I can handle mentally.

I have never taken my progesterone orally, the reason behind this is rectal administration bypasses the liver's first metabolism, in doing this there is higher bioavailability, stabler blood levels of progesterone and less risks, note this is only with micronized progesterone, I will not do any research on synthetic as they are unsafe and have lower efficacy.

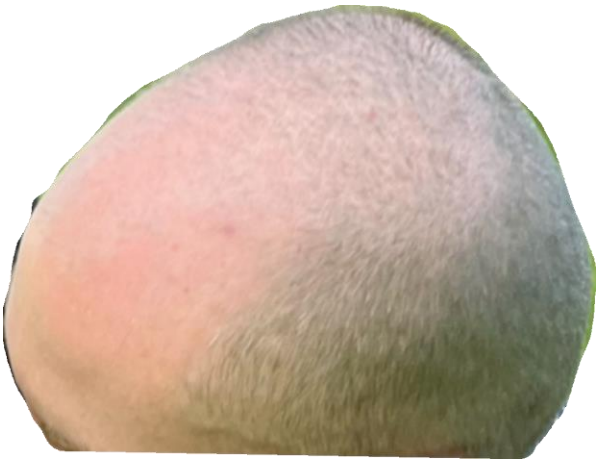
I will add updated breast pictures monthly most likely, but who knows I might get lazy. This concludes my section on breast development, thanks for reading.

Hair (Regrowth & Removal):

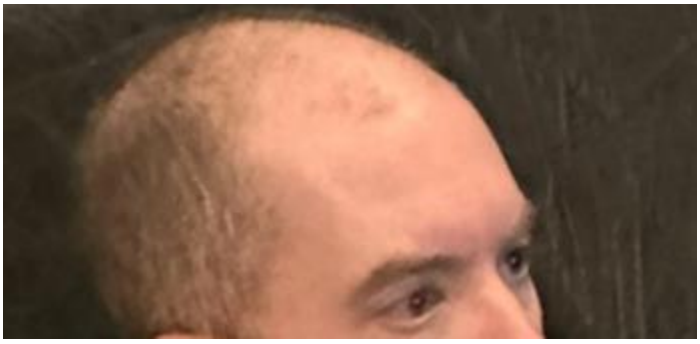
Scalp Hair:

This topic is suuuuuuper personal for me. I started going bald in my early 30s mostly just thinning hair and it accelerated when I hit my mid 30s. By the time I was 38, I couldn't stand to look at photos of myself or myself in the mirror because of my hairline. I never questioned why it made me feel sick, I just avoided looking at myself. Looking back, the dysphoria makes sense. The below images are where I started my scalp hair recovery:

Top of my head, outside in daylight:

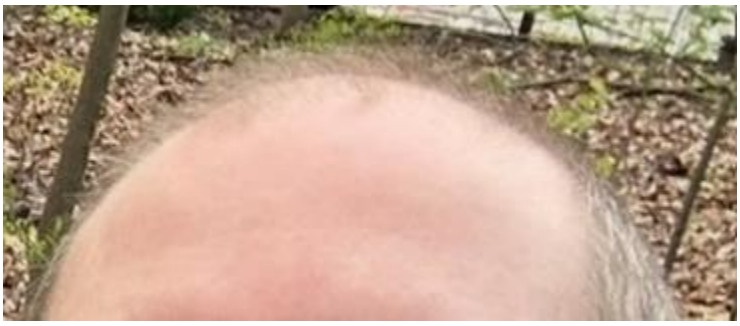


Indoor:

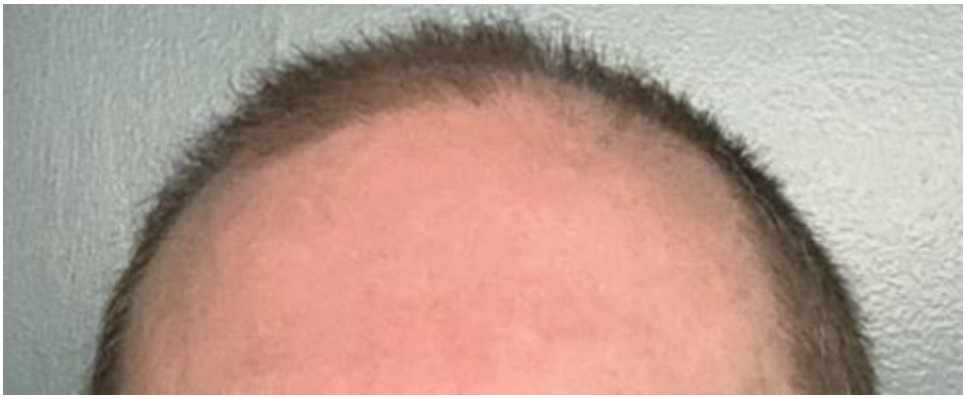


I started trying to deal with going bald before I knew I was transgender, I just hated how I looked.

In May 2024 I started topical HIMS spray (0.1% finasteride + 6% minoxidil) - I applied this 1 time per day. This is where I ended up **after 12 months of doing that.** Outdoor lighting (fuck you sun!) 🙄:



Indoor lighting (same time frame):



When I decided to start HRT, I researched hair regrowth optimization and I started this routine in May 2025:

- I kept using my topical HIMS hairspray until the last bottle was gone, but I tapered my usage from 1x per day to Monday / Wednesday / Friday - I did this because of switching to oral finasteride. I was hoping to avoid shedding (I did) by tapering topical in conjunction with adding oral.
- Oral Finasteride 1mg 1x per day (**Had I known about dutasteride, I would've done that**)
- Topical Minoxidil 5% (Costco / Kirkland Brand) 2x per day - it is cheap af and works great.
- HRT (meds listed above) and then adding progesterone rectally once I passed the 6 months timeline on HRT, some evidence progesterone helps hair growth but limited data.

- 1.5mm microneedle roller - every 2-3 weeks depending on scalp health and sensitivity. Instructional video. - TIP - I use 100% pure aloe on my scalp the day after microneedling to help reduce inflammation - **DO NOT MINOXIDIL FOR 24 HOURS AFTER MICRONEEDLING.**
    - **Studies show microneedling + minoxidil has a massive impact in hair regrowth.** (1.) (2.)
    - ****IF YOU ALREADY HAVE LONG HAIR**** - Get a microneedle stamp like this one - I have no experience with these but my understanding is to part your hair and stamp it. Here is a youtube video.

Hair regrowth is incredibly slow, most days it feels like **it is an act of faith** in my experience, trusting that it will work. It does work, but my god it is slow.

If your hair follicle died, completely, if your scalp has that shiny look - everything I am aware of means you're going to need transplants or wigs. If I'm wrong here, good I hope I am, but I can't find anything stating otherwise.

My experience with the "stages" so to speak are:

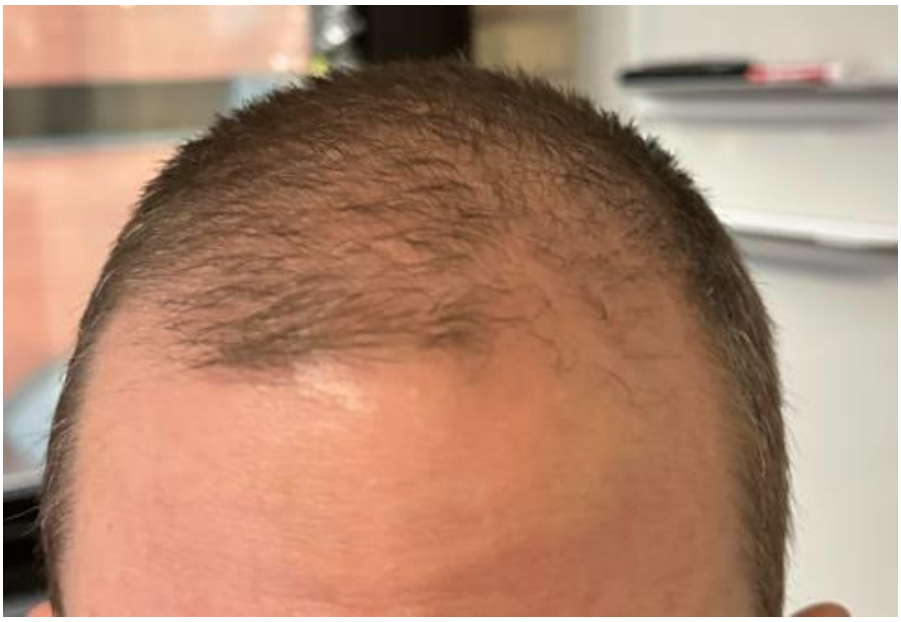
Little to no hair in an area → vellus patches (peach fuzz / fine white hairs, almost invisible) → thicker & longer vellus hair → lightly colored terminal hair → thicker terminal hair.

If I angle my head in the light at home right I can see so many fine vellus hairs throughout my scalp, I am hoping the stages continue to flow as I have experienced them. This is where I am at today, December 12, 2025 ~20 months of total hair restoration timeline but only ~7 months of HRT / oral finasteride / microneedling.

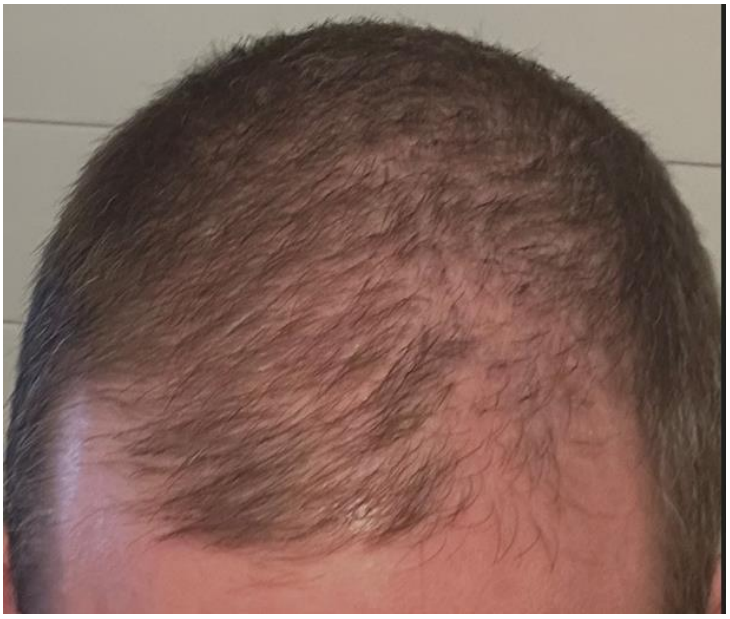
There's plenty of data and stories from transgender women, hair regrowth and improvement is an ongoing process for years, it is also worth noting strand thickness & texture will change over time (years).

I keep my hair buzzed to 9mm because it allows better penetration during microneedling and easier / more even application of minoxidil. My goal is to last 1 year on HRT and then revisit.

This is where I am today, December 12, 2025, it actually looks worse in photos than it does in person, this is also right after buzzing my head to 9mm, if I let it grow for 1-2 weeks, it looks significantly thicker:



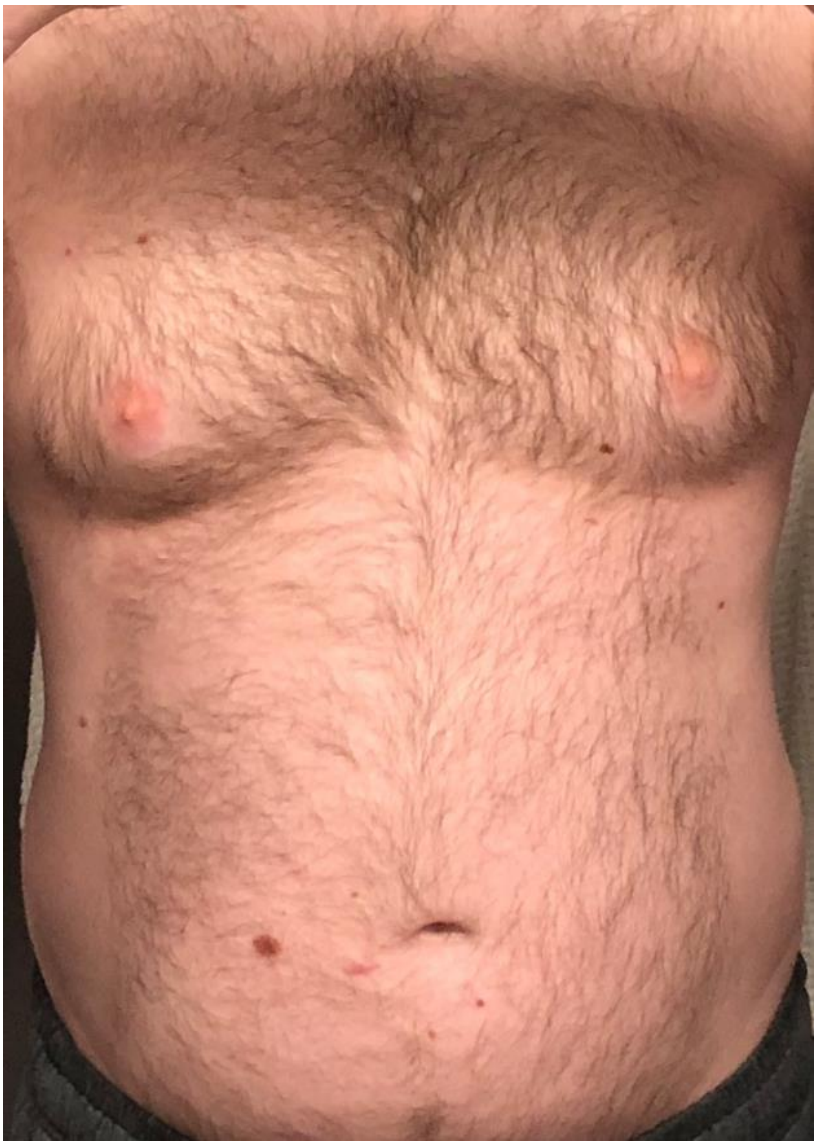
I'm on vacation for the holidays and haven't buzzed my head, this is what it looks like after 14 days of not buzzing it:



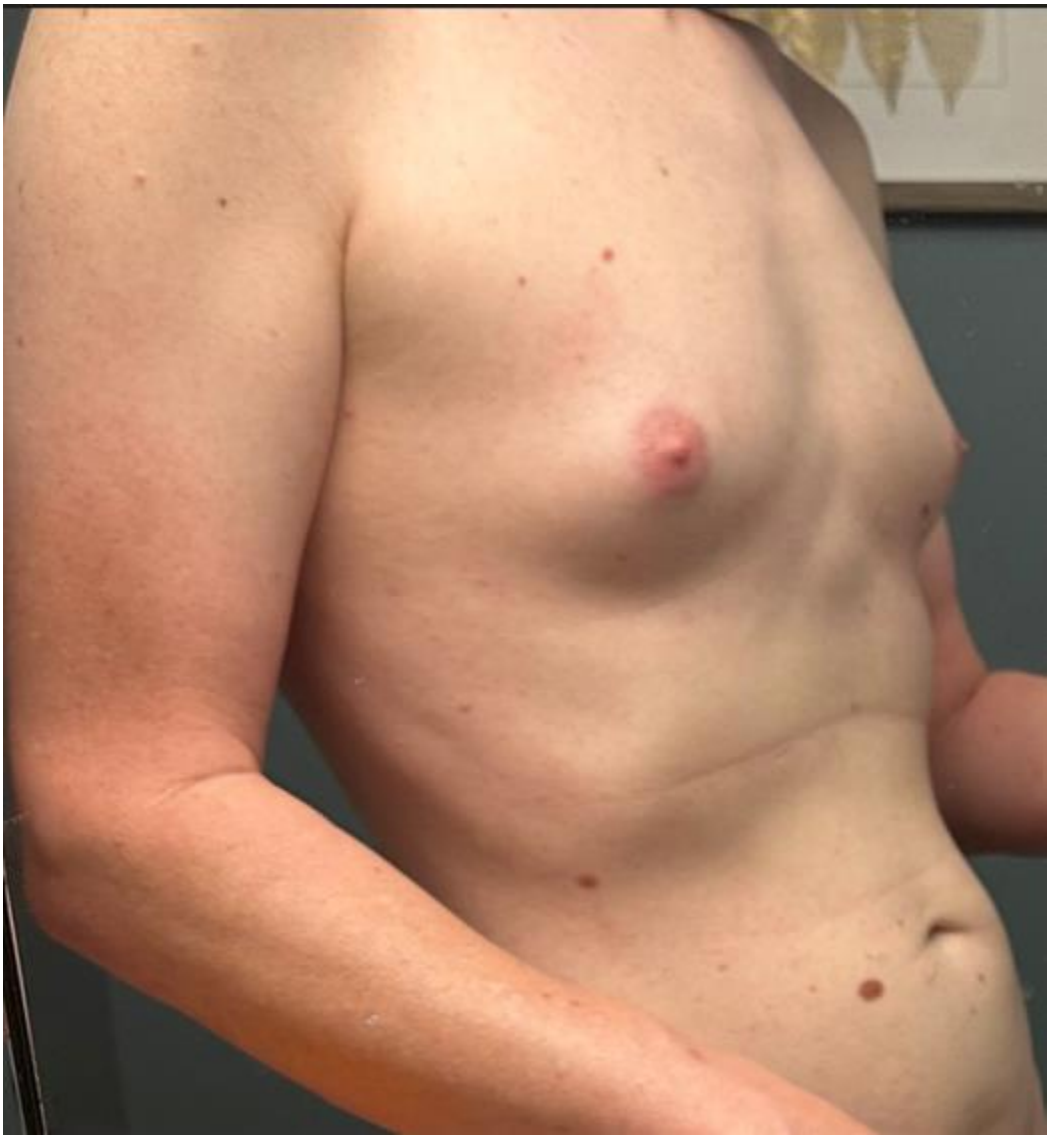
Body Hair:

Body hair for me is worse than scalp, mostly because I hated it for 20+ years now. I was a very hairy person most of my life and I hated to touch it, see it, I hated everything about it. When I was 18ish I had moved out of my parents house and was living with some friends and felt a bit safer there and I started shaving my body.

I'd even avoid putting lotion on my skin because touching it made me feel gross. I tried electric razors, disposable razors, nair, epilators, from 18 - mid 20s my body hair exploded. This was my baseline:



This was after my first time shaving in 20+ years (pre-HRT):



So, let's talk about shaving. For the longest time I used disposable razors from Dollar General, mostly BIC or whatever off brand cheap one I could find. It did okay.

Today I use a Merkur Safety Razor 34C - the factory blade it comes with did a horrible job in my opinion - I upgraded to Astra Superior Platinum Double Edge Blades - I cannot stress how much better this is. Don't do what I did - get the Merkur 34C and the Astra blades, you'll be so much happier and it is significantly cheaper in the long run. Also, **there is a learning curve with safety razors but just take your time.**

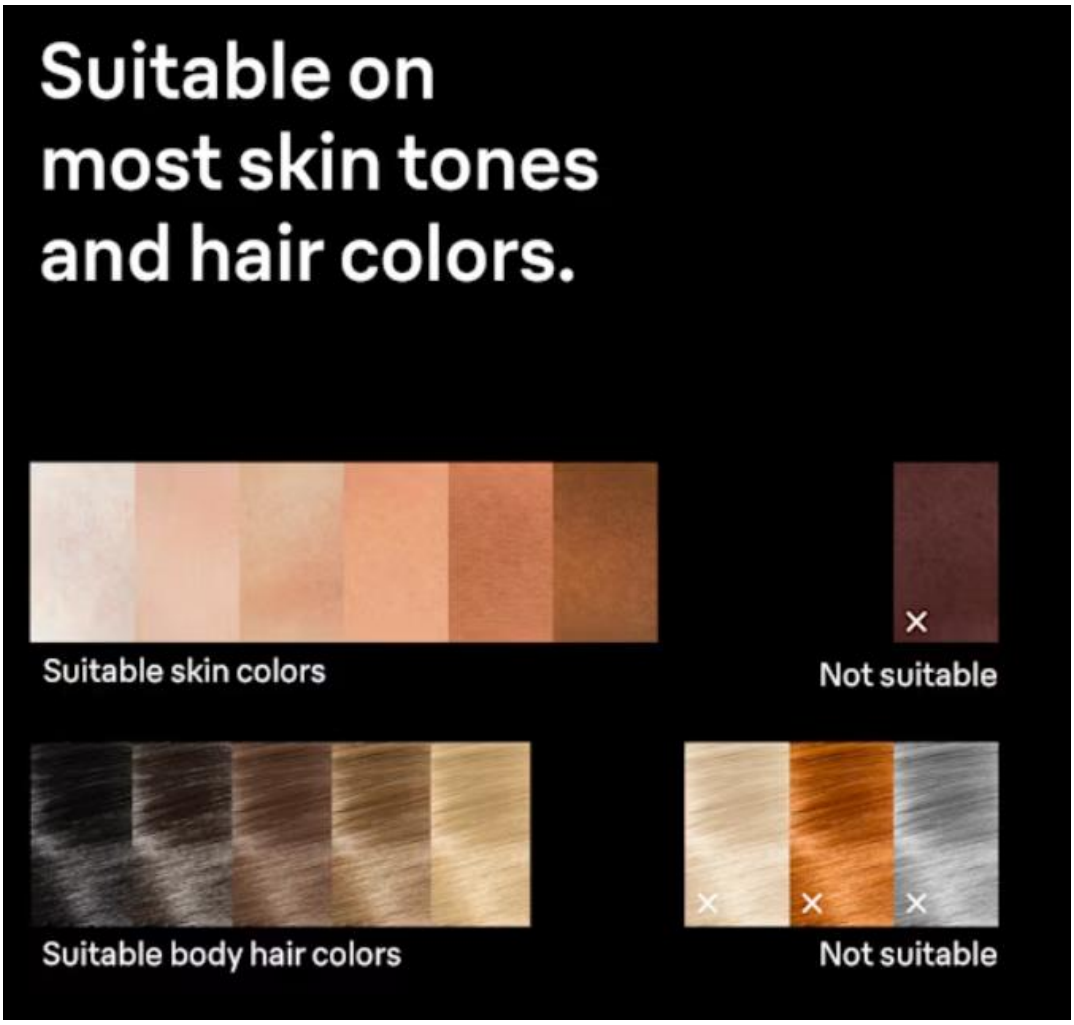
This was my process:

- First time, electric clipper no guard, shaved as close to my skin as I could
- Hot bath, I got the water as hot as I could stand, I love hot water though. I soaked for a while, 5-10 min to soften the hair.
- Apply cheap conditioner instead of shaving cream to the area you're shaving.
- Shaved head to toe - I know people say shave with the grain or don't shave against the grain, I do both, I shave with the grain and then I'll rub my hand against the grain and if it feels ok I skip that spot, otherwise I'll go against it.
- Once shaved completely, I immediately drain the tub and turn the shower on, I exfoliate (GENTLY) to remove any dead skin / hair or clogged pores, and use a sensitive skin body soap, I use Dove.
- Lotion lotion lotion! I'm a bargain shopper - I go to Costco. They have 2 packs of CeraVe for $30, but even at Target, it's $18.
- For me, after I use lotion I like to stay nude. I don't like the feeling of clothing on my skin after shaving, that's just me. I usually do it just before bedtime.

I started this shaving routine in October 2024. I hadn't started HRT yet and the hair grew back overnight. I was a prickly cactus again and I hated that. I was shaving my entire body 2x a week. That was a huge time commitment and waste of razors and I needed something else but I wasn't ready to start HRT.

IPL (Intense Pulsed Light):

This infographic is directly from Braun Pro IPL 5:



I chose this device after spending countless hours on Reddit reading in so many subs about hair removal for both men and women and then also reading on other sites about efficacy etc.

I am Irish / German / Scottish mostly and I have red, brown, white, blonde hairs all over my body. Some of my hairs are in the “not suitable” range and while they aren’t going away from IPL, HRT is helping (mostly chest hairs that are white).

*****REALLY IMPORTANT DO NOT HAVE ANYTHING ON YOUR SKIN BEFORE DOING IPL, NO LOTION, CREAMS, NOTHING OR IT WILL NEGATIVELY IMPACT YOUR RESULTS*** I do mine within 12 hours of shaving, if I have time I'll do it immediately after.**

I purchased mine in person at Best Buy for $299. Had I paid double that I would still be telling every person I know that hates body hair to buy one if their skin & hair colors fall close to the spectrum on the infographic.

I have probably sold dozens of these for Braun and I'm happy to do that. I am not someone that could afford laser hair removal for my entire body.

I did go to Milan Laser Hair Removal Institute and got quoted $15k to do my entire body, I just don't have that kind of $$. If $$ is not an issue for you → go straight to laser hair removal it is faster, higher efficacy and better results overall **HOWEVER - IPL IS PERMANENT TOO, it is permanent REDUCTION not REMOVAL**.

If you are consistent, if you do it weekly, if you don't stop or skip weeks and combine it with HRT, it will work if your hair / skin falls in the spectrum.

When combined with HRT - so long as your hormones stay in feminizing ranges + DHT suppression is happening, you're going to get good results.

Sources:

https://pubmed.ncbi.nlm.nih.gov/30681170/

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https://britishlasers.com/is-ipl-hair-removal-permanent/

https://ketchbeauty.com/pages/mtf-hrt-body-hair-removal-timeline

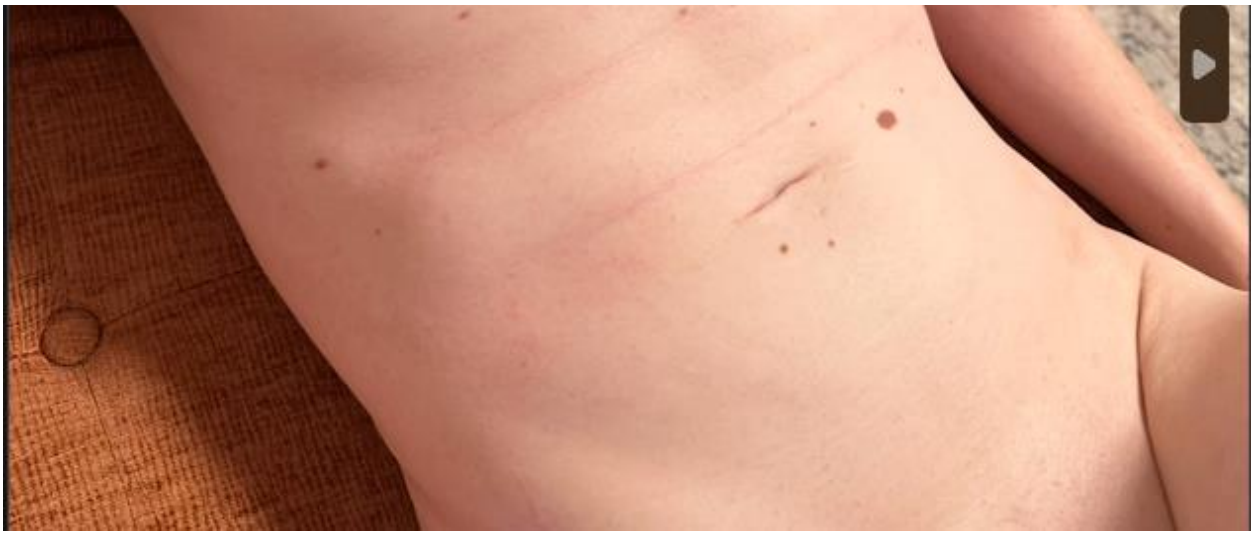
https://laserspagroup.com/conditions/gender-change-laser-hair-removal/

I started doing IPL the last week of October 2024, in April 2024 I had my first manic episode of my life and I didn't do it for 4 weeks and then got back on the horse, I have not missed a week since then.

Worth mentioning IPL does also help even out skin tones, I love how my skin looks now

I went from shaving 2x a week and always being stubbly → I shave 1x every 7 days and IPL 1x a week. I have entire sections of my body that used to be covered in thick course hairs that are bald, my shins, tops of my thighs, calves, forearms, upper arms, back, most of my stomach are bald mostly now, I plan to keep IPLing until every terminal hair is gone from my body.

This is recent (last few weeks):



For people of color that are not able to use at home IPL devices - there are options but unfortunately they are costly. The main thing I've found is a specific type of laser hair removal therapy using Nd:YAG (Neodymium-doped Yttrium Aluminum Garnet) to produce powerful infrared light. Please research the company you work with and make sure they have worked on skin colors close to yours to avoid burns or damage.

The only other option I can find is electrolysis, both of these are costly and I am sorry 😟 I wish it was more affordable.

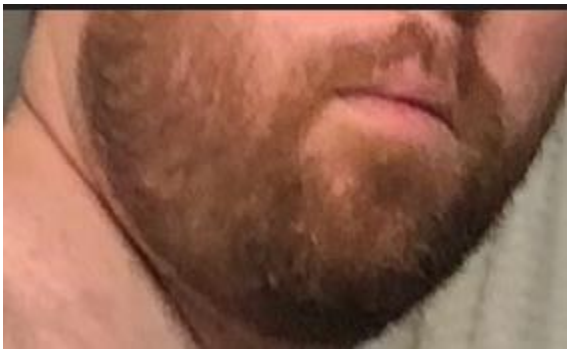
Facial Hair:

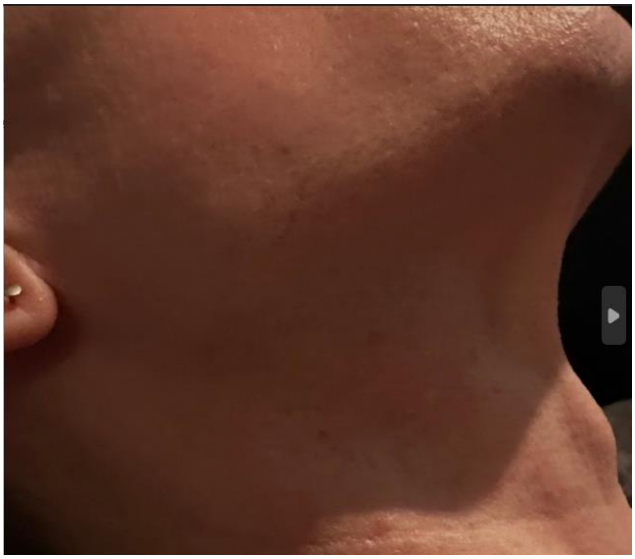
The industry standard is you need laser + electrolysis unless you're young enough to start transitioning before your hair turns white / gray. If you're able to just do laser and avoid electrolysis it will be much cheaper and faster…unfortunately I am not so lucky.

I can say in my lived experience, it was about 30 days after starting progesterone (so around 7 months total HRT time) my facial hair began to grow significantly slower, I also started laser hair removal in July 2025 and I go every 4-6 weeks (5 treatments done as of writing this). I found a local salon that charges $225 / session. From what everyone has told me, plan on 10 - 12 treatments 😳 so it ain't cheap but it is worth it in my opinion.

****Bonus tip - Milan Laser Institute does the first laser session for free if you go to their sales pitch (was about 1 hour). I got my first face + neck for free there****

Here's my beard then vs now:

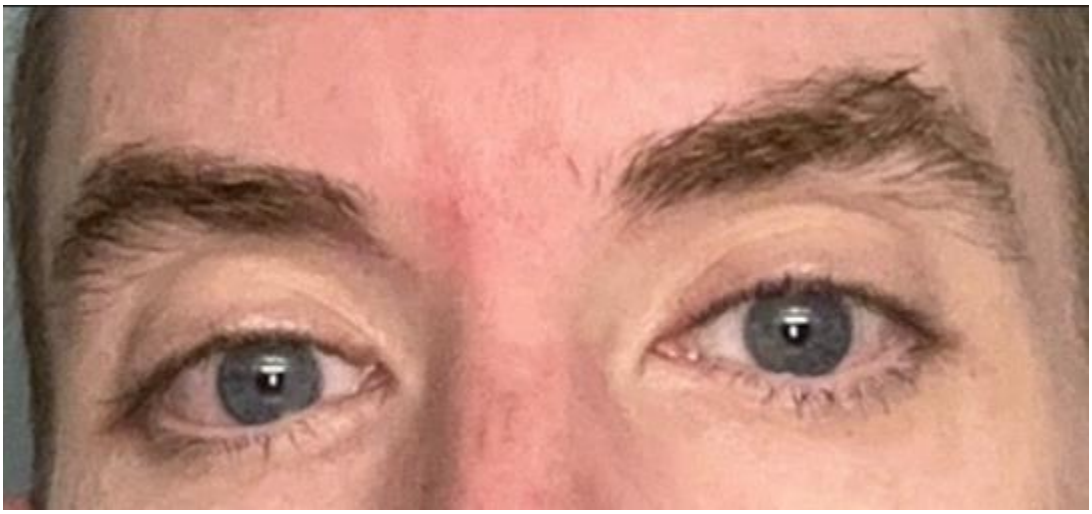




Eyebrows:

Okay so I am far from an expert here. I was terrified to do anything about these things, I had two caterpillars living above my eyes my whole life.

PreHRT:



December 11, 2025:

There are a ton of methods to manage your eyebrows:

- Plucking (Tweezing) - slow and best for small cleanups, removes the hair from the root, precise, cheap and slow regrowth. It's also time consuming and can hurt and then there's the risk of over-plucking if you DIY.
- Waxing - removes multiple hairs at once using hot or cold wax, best for strong reshaping / thick brows. It's fast, lasts for weeks but it is painful and can irritate the skin. It's less precise than plucking.

- Threading - uses twisted threads to pull the hairs from the root - best for clean lines, sensitive skins, it is very precise, no chemicals and less irritation. It does require a professional.
    - ***This is what I did*** - I went to a local place, told them to clean up my eyebrows and that I'm trying to look more feminine. It took the technician less than 5 minutes, it cost $15 and I tipped her $5.
- Shaving - cuts hairs at the surface using a razor, best for quick cleanup - it is painless and quick, short lived and good if you're going to try and shape them yourself since it regrows quickly.

There's more topics to cover on this but honestly it's not my wheelhouse - there's tinting, henna brows, brow lamination, brow markers and pens, microblading (if your eyebrows are super thin, it's like a tattoo), laser hair removal for permanent shape.

In my opinion, for me, going to a pro, having them shape it, and then I tweeze at home to keep the shape was a good $20 investment plus the cost of tweezers and a compact.

Physique:

I want to preface this by saying these were goals I wanted for me. I have no interest in body shaming anyone. You are no less of a transgender woman than I am if you don't work out, if you are on HRT to feel better mentally and don't care about physical changes, I support you 100%.

Gender envy is something I have experienced my entire life. My first memory of gender envy was Geena Davis when I saw the movie, "A League of Their Own" in 1992; I was 8 years old. I don't know exactly how old I was when I started confusing gender envy and attraction, but it was sometime in my early teens (sexually I identify as sapphic).

I've craved a certain physique my entire life, it is one of the most constant, prominent feelings I have experienced in my life. As a teenager I remember saying that I was a lesbian trapped in a man's body. It was the only words I had back then for it.

My main focus was to tighten my stomach, add mass / shape to my thighs, hips, butt and then I wanted to keep my upper body as it was. I do not have small arms but they are also not huge, I do a lot of manual labor and I want to keep my strength.

I'm proud of my transition and my changes, I've worked so hard at it. My worst (for me) was almost 250lbs, this was peak alcoholism for me, I was so miserable for so long. I went from hating myself:

To loving myself:

This is how I got there:

Ketogenic diet + intermittent fasting

*****There is a lack of studies regarding ketogenic diets & HRT - I was NOT on HRT when I went from ~250 → 155ish - I started HRT after losing the weight for clarity. From what I have read, I would not advise doing ketogenic while you're starting HRT, it could also impact bioavailability, feminization results by impacting hormones…there's just not enough information to really cover this safely. I would not do it.**

Quick thing I want to point out for people that have never fasted a single meal or think they cannot: Get your body into a ketogenic state BEFORE trying to start fasting for the first time. When you're burning ketones for energy, you're burning fat, if you're already in ketosis then you'll not experience the "crash" that comes from fasting when you are running on carbohydrates.

An easy way to tell if you're in a ketogenic state is to buy urine strips, they are cheap and accurate.

My weight loss was not linear, it was more like: 250 → 210 → 220 → 205 → 210 → 195 → 205 → 190 → 195 → 185 → 190 → 175 → 185 → Egg Cracked → 155 in about 2 months → 145 about 2 months later → 139 → 145 → 155 (current weight). I'll talk about cycling later in the physique section.

My anxiety is very much tied to my stomach, it will twist into knots that are quite painful for me, it has been that way my entire life.

Early realization was one of the worst times of my life. I felt so alone, I felt cornered, I felt like there was no path forward that ever would let me be happy.

My anxiety was through the roof, I stopped eating, I started walking 2-4 miles a day, 7 days a week. This grew organically, my peak was 70+ miles a week, but I was eating more by then. 🙂

Winter is here and with lots of snow and ice, I hate being cold and my walking is down but I just got a walking pad and my miles per day are heading back into the right direction, I miss my walking time.

I remember before I realized everything I'd think to myself, "Why do boys workout? Who would want to look like any of them? If I were a girl…I'd work out all the time because I know how I'd want to look." I was sooooooooooo stupid; my entire life I have thought this.

I had NO ASS - I mean the worst boy flat ass with double cheeks on the bottom.

Exercise routine 3x per week + walking 5-7 miles a day:

Donkey Kicks + Fire Hydrants (combined as one movement - I do the donkey kick and bring my leg back to neutral, I don't put my knee down, go straight into the fire hydrant and that's one rep).

- 15 reps x 2 sets each leg

Bodyweight Hip Thrusts

- 15 reps x 2 sets

Glute Bridges

- 15 reps x 2 sets

Bodyweight Squats

- 15 reps x 2 sets

Side-lying leg rises

- 20 reps x 2 sets

Ab Crunches

- 30 reps x 2 sets

Leg Raises (lie flat on back bring legs up for lower core work)

- 20 reps x 2 sets

Push-ups

- 15 reps x 2 sets

Walking + this workout routine + HRT took me to this in ~6 months:

Yesterday I did my first updated routine, it is time to add weights / resistance:

Donkey Kicks + Fire Hydrants 2x15 each leg with ankle weights

Push-ups - 2x15

Crunches 2x30

Side lying leg raises 2x20 each leg with ankle weights

Back lying leg raises 2x20 each leg with ankle weights

Planks 2x45-60s

Dumbbell Bulgarian Split Squats 2x10 each leg

Dumbbell Romanian Deadlifts 2x10

Dumbbell Goblet Squats 2x8

Band Hip Thrusts 2x8

As far as home equipment goes - I spent ~$350 including the walking pad.

Bands

Ankle Weights

Adjustable Dumbbell

Weight Cycling:

I am new to cycling, I mean I'm new to all of this really but, my understanding of weight cycling is using HRT fat redistribution to optimize your figure. In theory, fat is actively being redistributed on my body, away from my stomach and to my butt / hips / thighs / breasts and helping me take shape.

By cutting (calorie deficit) → you'll still lose fat on your entire body but the theory is you'll lose more around your stomach (masculine areas) and less from the feminine

dominant areas - this of course requires you to have your hormones in a feminizing range while doing this.

Then you cycle back up and fat gets distributed to the feminine areas and less to your stomach (masculine area). I also know when you cycle up, focus on protein intake and make sure you're getting your nutrient macros, be sure to do weight training during up cycles to grow muscle mass to support that fat tissue.

Body Odor:

This doesn't need a ton of detail, but it should be mentioned. Since we're talking about getting all sweaty and working out may as well touch on it here. I do not smell like a boy anymore, it's the strangest thing and I much prefer it.

Let’s Talk About Sex (NSFW)

Introduction

This section needs to be labeled clearly, this is not sexual content or anything in that realm, this is sexual education and sexual health. This will include my personal experiences as well as information I was able to find.

I am writing this document because I want to help people like me - people that have trauma, neglect, abuse, internal transphobia, self-doubt, concerns about their perception in the world, fear of trying new things (including sex). But I'll be honest, if you're reading this and you're not transgender, I'd still love to help you here. If you're a cisgender male I'd love to help you too, especially in this area.

In my lived experience I can tell you I'm pretty sure a lot of the world's problems could be solved if men knew how to enjoy their prostate and anal sex. I say that part jokingly but really, there is so much hate centered around anal sex and homophobia and it's nonsense. So many boys are missing out on some of the best feelings I've ever experienced at least.

From a sexual health perspective, much of the stigma around anal & prostate pleasure is cultural rather than biological.

I have been with my wife since I was 21, this April 2026 is 20 years, I don't have any wild stories or adventures and my sex life for the most part was and is fairly vanilla. There are parts of my life I am not going to share but I will do my best to be as open and honest in this section as I can be.

Erectile Function & HRT

When we start HRT and our testosterone levels drop our bodies change in so many ways, including our genitals. **Erectile capacity typically decreases** while **orgasmic quality often improves**, becoming longer, more diffuse, and "whole-body" rather than genitally focused. New erogenous zones develop, particularly nipples, while existing ones like the prostate remain functional despite tissue changes. The sexual and gonadal effects begin within 1-3 months of starting feminizing HRT, with maximum effects occurring over ***3-6 years*****.**

It is pretty straightforward, estrogen combined with anti-androgens suppresses testosterone, the primary driver of erectile function. Spontaneous and nocturnal erections typically decrease dramatically or disappear entirely. However, erections from direct sexual stimulation often persist longer than spontaneous ones (1). Some transgender women keep erectile function regardless of testosterone suppression - the mechanisms remain unknown.

Genital tissue changes include **testicular volume reduction to less than half original size**, penile tissue softening and potential atrophy, and significantly reduced or absent ejaculate. (2) (3).

If you keep using your penis from the week you start HRT and are able to maintain erections for at least 10 minutes, 3 times a week, you should avoid atrophy.

If you're unable to sustain erections without medicine, that's okay you can still use medications to counteract these effects. You should work with your doctor on what does or doesn't work for your specific medication regimen. Here are the options I am aware of:

PDE5 inhibitors remain first-line treatment. The UCSF Guidelines explicitly state: "Sildenafil (Viagra) and tadalafil (Cialis) can be used for preservation of erectile function at any stage or with any feminizing hormone regimen." (4).

Sildenafil (Viagra) works by inhibiting PDE5, preventing cGMP breakdown, causing smooth muscle relaxation and increased penile blood flow (5). Standard dosing is 25-100mg taken approximately 60 minutes before activity, with effects lasting 4-6 hours. Common side effects include headache (>10%), flushing, nasal congestion, and occasional visual disturbances due to PDE6 cross-reactivity.

Tadalafil (Cialis) uses the same mechanism but offers significant advantages: longer duration (up to **36 hours**), allowing greater spontaneity, and the option for daily dosing at 2.5-5mg (6). This daily low-dose approach may help mitigate penile atrophy by maintaining regular blood flow to genital tissue. Back pain and myalgia occur more frequently than with sildenafil.

Topical testosterone represents an emerging option for genital tissue health without compromising feminization. Dr. Will Powers and other specialized providers prescribe compounded testosterone cream applied directly to genital tissue. The rationale: very low localized doses may promote tissue health without raising systemic testosterone levels. A pilot study by Schultheiss et al. *World Journal of Urology*, 2000 found 32.6% of hypogonadal cis men improved erectile function with topical penile testosterone application. No standardized protocols exist for trans women - this approach is best pursued with urologists experienced in transfeminine care.

Penile Orgasms & Sensations:

The most comprehensive research comes from Garcia and Zaliznyak at Cedars-Sinai/UCSF, surveying 126 trans women on hormone therapy for at least one year (1). Their findings challenge assumptions that HRT impairs sexual function:

- **Time to orgasm** increases by approximately 7 minutes (onset around 7.3 months HRT)
- **Orgasm duration** increases by an average of **27.5 seconds** (onset around 9.4 months)
- **70-71%** reported experiencing orgasms in new or additional body locations—described as "whole-body" versus genitally focused
- **52-65%** reported shifts from single-peak to **multiple-peak** orgasms
- Post-orgasm refractory period decreased
- Overall satisfaction improved

Qualitative descriptions consistently describe orgasms as "longer, more intense, came in great tingling waves" with less peak intensity but more diffuse, full-body sensation. (2). Ejaculation becomes decoupled from orgasm and may occur without ejaculate (3)(4). Published research in the *Journal of Urology* concludes: "HRT results in more orgasm features that more closely resemble those of cis-women." (5)

The "use it or lose it" principle applies directly to penile tissue. Nocturnal erections in testosterone-dominant physiology exercise penile elastic tissue, keeping it soft and stretchy. HRT typically eliminates nocturnal erections; without regular

erections, tissue can lose elasticity, experience smooth muscle contraction, and atrophy.

*****IF YOU PLAN TO GET BOTTOM SURGERY AND PLAN TO HAVE A VAGINAL CANAL MADE, YOU WILL WANT TO KEEP YOUR PENIS ELASTICITY*****

Anal Pleasure Physiology & Sensitization

I'm going to use a lot of biological terminology here, not to confuse you the reader or me for that matter, a lot of this is dense and hard to read, but I want to show the overwhelming evidence on how our bodies are designed for pleasure.

The anal canal possesses rich specialized innervation, it is approximately 2cm-4cm long, containing two muscular components: the internal anal sphincter (involuntary smooth muscle, autonomically controlled) and the external anal sphincter (voluntary striated muscle, controlled via the pudendal nerve). This anatomy allows for both reflexive relaxation and conscious control, but it does take practice to learn how to control in my experience.

Specialized sensory receptors present include Meissner's corpuscles (light touch), Krause end-bulbs (temperature), Golgi-Mazzoni bodies (pressure and tension), Pacinian corpuscles (deep pressure and vibration), genital corpuscles (friction—specifically relevant to erogenous response), and free nerve endings (pain, temperature, general sensation) (1).

The pectinate (dentate) line marks a crucial sensory boundary: above this line, sensation is transmitted via autonomic parasympathetic pathways (less specific, primarily stretch-sensitive); below the line, rich somatic sensory innervation via the pudendal nerve enables discriminative touch, pain, temperature, and pleasure sensation. Research in *The Journal of Sexual Medicine* (Walton et al., 2022) found the superficial anterior area is the most commonly reported erogenous zone, likely due to proximity to internal erectile structures and higher density of friction-responsive genital corpuscles.

Multiple neural pathways mediate anal pleasure.

The pudendal nerve (S2-S4) serves as the primary somatic pathway. Its inferior rectal branch provides sensory innervation to the anal canal and perianal skin; TeachMeAnatomy its perineal branch supplies the perineum. The pudendal nerve carries afferent signals for touch, pressure, and pleasure from the anal canal to the spinal cord and brain (1) (2).

The pelvic splanchnic nerves (S2-S4, parasympathetic) provide visceral afferent fibers detecting stretch and fullness, contributing to vasodilation of erectile tissues during arousal.

The hypogastric nerves (sympathetic, L1-L2) carry proprioceptive signals and contribute to sphincter tone and orgasmic contractions.

A 2024 comprehensive review in *Nature Reviews Gastroenterology & Hepatology* (Dickstein et al.) explains: "Pleasurable **RAI (receptive anal intercourse)** occurs through stimulation of the perianal or anal nerves and prostate or paraurethral glands, inducing vasodilation, erectile tissue engorgement, anopelvic tissue sensitization, and anal sphincter and pelvic muscular contractions." (3)

Evidence strongly supports experience-dependent neural adaptation - your first time most likely won't be great AND THAT IS TOTALLY NORMAL!

The most compelling evidence for anal sensitization comes from Gaither et al. (2023) in the *Journal of Sexual Medicine*, surveying 975 people with prostates (including transgender women) about receptive anal intercourse sensations:

Lifetime exposures	Reporting pleasure	Reporting severe pain
<10	41%	39%
11-50	~65%	~25%
51-200	~80%	~18%
201-500	~87%	~15%
>500	92%	13%

This study strongly suggests that experience-dependent neural adaptation occurs: pleasure pathways strengthen with repeated positive experiences while pain/discomfort pathways become less dominant, regardless of starting age (4) (5).

Neuroplasticity provides the biological mechanism: general neuroplasticity principles apply - synaptic plasticity means repeated stimulation strengthens neural connections through long-term potentiation; cortical remapping occurs because sensory maps are use-dependent, frequently stimulated areas expand their cortical representation and associative learning means stimulation paired with arousal/pleasure trains the brain to associate that stimulus with reward (6).

Timeframes from neuroplasticity literature suggest short-term plasticity occurs over minutes to hours, medium-term structural synaptic changes begin over days to weeks, and long-term cortical reorganization with dendritic spine changes occurs over weeks to months (7). Musicians show structural brain changes after 15 months of training, with cortical changes visible in as little as 1 week with consistent practice, stabilizing over months. For sensory adaptation specifically, studies show cortical changes occurring within 1 week of new sensory experiences, with major adaptation typically over 3-6 months (8).

Estrogen enhances sensitivity to tactile stimulation of perineal skin and affects dendritic spine density and synaptic plasticity - I can't prove this impact on transgender women, this is just a theory (9).

TL;DR - to highlight in layman's terms - **your anal canal is literally designed to feel sensations that are bad (to prevent harm) and good (to enjoy pleasure). This is how your body works, and mine, but just because you try anal once does not mean you will immediately feel pleasure. You have to LEARN how to enjoy anal sex - it just takes time and practice, same as learning any other new skill.**

Prostate Pleasure Physiology & HRT Effects

The prostate possesses extraordinarily dense innervation and is often referred to as the "p-spot" or male analog to the "g-spot". The prostate is approximately walnut-sized and positioned inferior to the bladder, wrapping around the proximal urethra, anterior to the rectum and accessible approximately 1.5 inches / 4cm from the anus via the anterior rectal wall. Approximately two-thirds glandular tissue and one-third fibromuscular tissue, it is surrounded by a thin fibrous capsule and the prostatic plexus of nerves (1).

The prostatic capsule is "covered by numerous nerve fibers and ganglia which form a true periprostatic nerve network." The periurethral zone is "widely innervated by nerves arising from the periphery." (2) (3) *This density of innervation underlines its capacity for intense pleasurable sensation.*

The prostate receives complex innervation from three main pathways: pelvic splanchnic nerves (S2-S4, parasympathetic), hypogastric plexus (T11-L2, sympathetic), and pudendal nerve (S2-S4, somatic), creating a rich sensory network with multiple receptor types including alpha-1 adrenergic, muscarinic, and mechanoreceptors.

Prostate-induced orgasms differ markedly from penile orgasms: they involve 12 pelvic muscle contractions versus 4-8, are described as more intense and diffuse, can occur without erection or ejaculation, and allow for shorter refractory periods with potential for multiple orgasms. Orgasm and ejaculation use separate neural pathways—emission (T11-L2) and expulsion (S2-S4)—meaning orgasmic contractions can occur even without ejaculation.

HRT causes substantial prostate changes: volume decreases significantly, PSA levels drop 50-fold (median 0.02 ng/mL versus 1.0 ng/mL in cis men), and **prostate cancer risk decreases 5-fold (4)(5)**. Standard PSA screening thresholds are inappropriately high for trans women; UCSF recommends lowering the upper limit from 4.0 to 1.0 ng/mL.

Critically, sensitivity changes remain poorly studied with no controlled research on HRT's effects on prostate sensation. **Anecdotal reports suggest the prostate may remain sensitive or become more sensitive on estrogen**, though size reduction might require medication adjustments for optimal sensation.

Developing prostate pleasure involves neural plasticity—the brain "rewiring" through peripheral sensitization, dorsal root ganglion upregulation, and cross-organ sensitization between prostate, bladder, and pelvic structures.

This process requires relaxation, time, and practice, though specific timeframes lack scientific documentation. I CANNOT SAY THIS ENOUGH 🙄 - more sources: (6) (7) (8) (9)

Nipple Pleasure Development During HRT

The nipple-areola complex receives innervation primarily from the 4th intercostal nerve (lateral cutaneous branch), though nerve supply varies significantly between individuals and even between breasts. Contrary to expectations, nipple sensitivity doesn't rely on typical skin mechanoreceptors but instead depends on rich smooth muscle innervation in the deep dermis and Piezo2 expression in mammary gland tissue—a unique sensory mechanism distinct from ordinary touch.

A **landmark fMRI discovery found that nipple stimulation activates the genital sensory cortex in both women and men**, not just the expected thoracic region of the somatosensory homunculus. This suggests either a direct pathway (convergence of nipple and genital sensory afferents on the same cortical neurons) or an indirect pathway (nipple stimulation → oxytocin release → uterine contractions → genital cortex activation). The finding in men supports a direct pathway mechanism (1) (2).

Breast development on HRT follows a predictable timeline: breast buds become palpable in months 0-3 with nipple tenderness; most rapid growth occurs in months 3-6 (+1.3-1.8cm); development slows significantly after 6 months; and growth typically plateaus at 2-3 years. Most trans women develop AAA to A cup size, and importantly, high-dose estrogen doesn't improve outcomes.

Sensitivity evolves through distinct phases: early nipple tenderness/soreness (often within the first weeks), heightened sensitivity during months 1-3 (sometimes uncomfortable), breast bud formation during months 3-6 (hard pea-sized lumps beneath nipple with intensified sensitivity), and gradual transition from discomfort to erogenous sensitivity as tissue matures. Research shows breast tactile sensitivity significantly increases after puberty in women compared to men, with 82% of young women reporting nipple stimulation enhances sexual arousal (3).

Neural pathways strengthen through neuroplasticity—the sensory homunculus reorganizes based on input, and repeated stimulation (physical or imagined) strengthens these pathways. Trans-specific research on this reorganization during HRT remains absent, representing a significant research gap (4).

Attraction & Feeling Attractive

I have always been attracted to females, femininity, and I have always found masculinity and men repulsive (sexually speaking). Today, I identify sexually as sapphic - I have identified this way since I discovered the term. But lately, something new, there are a few men I've been attracted to, which is very confusing for me but I am learning through the transgender community this is fairly common for a lot of us after starting HRT.

I don't know if this change is a direct result of HRT or just allowing ourselves to exist openly and allowing our minds to explore new / more feelings, but this is something that I am experiencing. I don't know if I'll identify as pansexual one day, I don't really care to be honest. I am happily married and lucky in that regard, I do not feel that I am missing out on any experiences in life at this point and I am grateful for that. **I hope you find the same wholeness whatever path your journey takes you on.**

Regarding feeling attractive - I have spent my entire life, even through today, seeing an unattractive person in the mirror. It is just what I see when I look at me. That is changing, slowly. I'm starting to see parts of myself in a positive way, I love my legs, watching my booty take shape, seeing my breasts grow, my skin glows now in a way it never has, I often will go to grab something and I see my arm and hand and it looks foreign to me in the best way → euphoria follows every time.

This is my favorite image of my body:

Cleanliness, Lube, Sex Toys & Vibrators

I will confess I have a ridiculous collection of toys because I was trying to discover what did and what didn't work for me. I'm just going to break them down into subsets by type of toy with brief summaries on what I've found to work.

Cleanliness - I cannot express the importance of this. I recommend taking a fiber supplement daily - I use psyllium husk - it is cheap, easy to find, it has multiple benefits for your overall health and it makes staying clean easier.

I use an Aneros enema bulb - the reason I am recommending this product over your basic store bought enema bulb is the airtight design. This thing will only push water inside of you, no gas, no bloating, no air, it makes everything more enjoyable. You can read up on using an enema bulb for anal sex but my tl;dr - wash the bulb with soap and water, fill the bulb with sterile water that is room temp, assemble the bulb (I use a drop of lube to get the nozzle into the bulb because of the air tight design), lube the nozzle as well as your anus, insert, I will on the first pass use the entire bulb's contents. Once I have sprayed all the fluid in, I'll take it apart, wash it in the sink, fill it and prepare it for the second pass, wait 3-5 minutes, do my business on the toilet, wipe, go back in, rinse and repeat (literally) until the water coming out is clear. ***Do not over do this, typically it is 2-3 passes for me, if you're needing to do more cycles than that, in my experience you need more fiber.***

Lube - I use one product, it is the only product I use and I recommend it to anyone. It is incredibly affordable, you mix it yourself so you can change the viscosity (thickness) of the lube and this stuff just works. One bottle of X-Lube makes 5L of lube - it stays on the toy, it lasts a long time and it doesn't take long to mix.

Personally - I use a 5oz bottle, I use reverse osmosis water from my at home RO system, if you do not have an RO system I would advise getting distilled / bottled water AND / OR at minimum boiling tap water before use.

My process is to pour ~12oz of water into a glass measuring cup, microwave it until it is not hot but warm (20 seconds) I will fill the 5oz bottle halfway, I measure ¼ teaspoon of powder and pour it into the 5oz bottle, then I will measure as second ¼ teaspoon scoop (rounded) and put that into the bottle, I'll top the bottle up with the warm water, put the cap on the 5oz bottle, shake it vigorously until there are no visible clumps. Lay the bottle down flat (with the cap closed) and let it sit for 5-10min, shake it vigorously again, lay it down again flat, less than 5min and it is ready to go, store at room temp for no more than 2-3 weeks.

Plugs - I have used stainless steel plugs & silicone plugs. Early on I really was focused on stretching because I had assumed bigger = better for prostate stimulation. **I was wrong, at least for me I was.** Initially I would just put a small plug in and → size up safely, I solely used the plugs as a warm up for sex. This has come to change, specifically with the silicone plugs, I really like the squarepegtoys.com egg plugs - I had a small, it just was pointless for me, I upsized to a Medium, Large and I also have an XL. I rarely use the XL these days, I will often use the M and the L.

I no longer use these just for stretching, as my prostate has gotten more sensitive I have found I enjoy having a plug in, rocking it back and forth inside of me causes a lot of pleasure and if I'm relaxed enough, just insertion and removal is also very enjoyable.

Dildos - I have tried extremely firm dildos all the way to super soft ones that are squishy. I have tried large diameter and not too long as well as narrow and longer. The sigmoid colon is located past the rectum - the rectum is approximately 12cm (4.7 inches) and then you get into the sigmoid. I personally don't go super deep, I know some people enjoy depth play like 12+ inches - I know there are risks involved with this and large amounts of lube are required for depth play, I find 5-7 inches is my happy place. You do you, explore, find what works and enjoy your body.

I already linked squarepegtoys.com multiple times - but I will say they make some of my favorite products, Leo or Leo Harness is my favorite dildo from them.

Double Dildos are fun, I had my first experience with those recently and it might be my new favorite thing to do with a partner. This is the exact one I got and it's hilarious to me because I have tried so many brands of dildos and this thing is actually one of my favorites. It is narrow, very flexible, I can get deeper penetration and then by bending it inside of me I'm able to just rub my prostate, it's amazing, I lost count last night but I had over 5 orgasms in an hour using this specific toy.

I don't enjoy vibrating toys anally, that's me, I have tried b-vibe's vibrating plug with rotating beads, I have tried Lovense Edge 2 and a few vibrating dildos, it just doesn't work for me, but I know lots of other people swear by it so YMMV.

Vibrators - Magic Wand - this is a whole different ballgame, we're moving away from anal here and talking about stimulating the penis / glans through vibrations only. I can also have multiple orgasms from this thing as well but it usually is 2-3 and then I'm just done. My experience is using this at the base of the shaft on low, the rumble /

vibrations is amazing, I prefer to have leggings on or have a sheet tightly wrapped to keep everything in place and prevent my penis from moving around. If I stimulate directly underneath the glans (tip) I will finish very quickly usually and have an intense orgasm but it is one and done, much more similar to my sexual experience when I lived life as a man, it’s nice and enjoyable but not the same as my other orgasms now. I find the base and then staying below the glans on the underside of the shaft to be the best approach, when combined with anal it makes everything go faster and more intense but also shorter lived.

My Path To Enjoying Anal / Prostate Play

Alright so, it's super interesting to me that my sobriety is linked to all of this. When I was 24 years young, I quit drinking for a year. I knew I had a problem and I told myself if I can quit drinking for 365 days then I can control alcohol. I did it, I didn't drink for exactly one year and then I started back up again. During that year of sobriety, I bought an Aneros because I wanted to explore my body. I remember feeling really self-conscious about using it and I even hid it from my wife initially.

I used it sporadically, incorrectly (because I didn't know how to use it) and mostly expected magic after insertion and instead what I got was a feeling of pressure and fullness with no pleasure associated with it. I felt like I had been scammed. I put it on the shelf somewhere in a closet and forgot about it, eventually started drinking again and threw it out.

Fast forward 14 years, I was 38 and sober again and for some reason that I could not figure out, I wanted to explore anal sex again. I was more open with my wife about it this time but not inclusive for her, I just told her what I was doing.

It started out very similarly as the first time, the first toy I bought was a Lovense Edge 2, I wanted handsfree. I thought using a dildo was "too gay" (sorry it's who I was, I didn't know who I was and I was ignorant) but that is my truth. I'd put it in, play with the vibrations and hoped, nothing happened though.

I spent hours doing what I do, reading on Reddit and other sources about my prostate and body and tried to figure out how to make mine work. When I learned it was about time, practice and patience I decided to just incorporate it into part of my life. If I masturbated, I'd wear a plug. If I had sex, I wore the plug sometimes.

I was hypersexual back then, I would masturbate sometimes 4-6 times a week, sometimes more, that's gone way down, now I would say it's 1-2 sessions a week but they last much longer and I have a lot more orgasms.

I started to find my climaxes with my penis were more intense when I had the plug in, and insertion and removal started to feel better, but still nothing going on with my prostate. I decided to try something that I could insert in and out without it being a dildo because of my own internal phobias back then. I bought an njoy wand.

I would try using this multiple ways, small end first and I worked my way up to the larger side, I would just insert and remove it (thrusting) or I would let it rest against what I THOUGHT was my prostate because honestly it felt numb in there, I couldn't find it.

I can't express how frustrated I was, this search for my prostate took a year, an entire year before I started feeling anything there, anal enjoyment improved much faster.

Everyone says "don't chase climax" and to just follow the feelings, as frustrating as that advice is and it is vague, it is true. Once I started to have feelings in my prostate they were very enjoyable and when combined with penile climax, I was very happy. I was late into 39 by now and still not aware of my gender confusion. I finally bought a dildo.

The first time I used a dildo, I did enjoy the thrusting more than I thought I would, I just bought a cheap one at the store, nothing too big, I had already explored into other plugs (as mentioned above) and my comfort around my sexuality was improving. I was feeling less shame about enjoying this and more curiosity about exploring it.

I continued to basically use my prostate / anal as a combination to penile climax for a long time, I was happy with how everything worked and I felt like I'd peaked. Then my egg cracked, then everything changed.

I stopped doing anal / prostate play, I was ashamed again and hated what I had discovered about myself. For a while there, I regretted ever trying anal sex / prostate play because in my mind it was the door to realizing I am transgender, in hindsight today, I can say it was a big part of my discovery but it was just one door in a long hallway filled with other doors that lead to the same place.

When I reached acceptance of who I am, and began to love myself, I immediately got back into anal play. I decided to try something new, something ***incredibly frustrating.*** I stopped touching my penis during masturbation. The anal / prostate play felt great, but I couldn't finish it. Some nights I would explore myself for hours if I had time, other nights it might only be 30-45min.

I felt like a pioneer on my own journey traversing my own landscape and I was determined to have a prostate orgasm, it was a slow progression but it kept getting better. Eventually I went back to finishing with my penis but I didn't finish every time I masturbated, and I always would start with anal / prostate play.

A week before I started HRT, I had my first prostate orgasm with a dildo, toe curling, giggling, loss of time, I almost fainted - it was amazing.

I started HRT, I tried again, but I couldn't get it. I was chasing an orgasm and not enjoying the experience. I was in my head, the science was clear - I should be able to replicate this experience and HRT is supposed to make this easier so what the hell is wrong. I got frustrated again.

Luckily, HRT changed a lot of me, it's helped me to be more calm, less demanding, and mostly more present in my body and life. I slowly got to the point that I stopped chasing that climax and just enjoying the experience.

Today, when I have anal sex I would describe it as waves that reverberate with each other and intensity can climb and lessen, I have mini-orgasms that feel amazing, I would describe it as warmth, tingling, just pleasure radiating from my prostate and outward. Then I might get numb for a bit, or just not super great feelings but not bad, just sort of a recovery window and then there will be another climb and climax, again intensity can vary but typically it is mini → bigger mini → bigger mini → bigger mini → full climax at some point → if I keep going more minis.

Sometimes I will ejaculate solely from prostate / anal sex, if that happens I have found that is the end of that session but it doesn't happen often and the further I get into HRT the less ejaculation I experience overall which I prefer.

I do still combine penile climax with anal / prostate but something new is happening and this is like, within the last month. It used to be if I was doing anal and touched my penis all sensation switched, it went away from my prostate and straight to my penis, but now it's not quite like that. My penis can't steal the show anymore and I love that. It does enhance sex, it does get a fuller / bigger climax for me when I combine them and it is usually how I finish a session after having had many orgasms from prostate / anal.

It keeps getting better - I don't understand how - but it does. Every time I do it I'm like how in the hell is it better, and yet it does. If you go down this path, I hope you learn faster than I did. It took me years, I also will say I am so glad I didn't quit and I had faith in science and my body's ability to rewire.

Vulnerability During Intimacy

I just wanted to touch on this, it took me a year to feel safe enough to perform sexually as a bottom role with my wife. It had nothing to do with her and everything to do with me, comfort with how my body responds, comfort with the idea of being penetrated by someone else. I am so glad I finally got there, I hate that it took me so long and I am grateful that my partner was understanding, compassionate and most of all loving.

If you find yourself in a similar situation, I don't have a "this is when I knew I was ready" moment - I wasn't 100% sure when it happened honestly, I just reached a point that I felt confident enough to try with no expectations. I was open with my partner about what I was and wasn't comfortable with, consent was clear and that should always be the case. It went very well - that's all I'll say, that and I'm looking forward to exploring more with her.

Coming Out:

I just wanted to share how I did it, how I got to the point that I was ready to do it and what worked and what didn't work.

I'll start with some backstory, I was born and raised in the south. I come from a Catholic / Conservative / MAGA type family. I relocated to the Midwest because my wifey is from here and her family is here, but MAGA is here too, her family also has MAGA people in it.

My plan when I finally started HRT was to try it out and see if my mental health improved. It did. HRT didn't cure me of my ailments, I'm still in therapy, I'm still discovering things about my mental health but I am much better today than I ever was preHRT in my opinion, my wife would agree.

I remember around day 8 my nipples started to change, puffier and more sensitive. I didn't expect to feel the breast change so quickly, I had read it happened but once I was feeling it, I was so afraid.

I flipped out, I thought what if my boobs get too big to hide and out me. I would spiral at night about it, I just wanted to try HRT and see how I felt - I knew how I wanted to look. I just didn't want other people to see me. I wasn't ready for that. I'm still not always - and that is ***okay*****.**

About 3 weeks into HRT I told myself I should stop, that I'll never be a woman or enough, I'll never be transgender enough, I'll never pass, I'll always look like an ugly old man-freak and I'm only going to bring spotlights and harm to my family.

I stopped spironolactone for 2 days, then I was due for an injection and I didn't want to go back, I didn't want to stop; so I didn't.

I came out to my wife before I started HRT, I told her at that time that I didn't know what my future looked like - which was 100% true in that moment - I wasn't sure if I wanted to transition, I wasn't sure if I wanted to try different clothing, I just knew I was transgender and that huge chunks of my existence felt like a lie to me. I told my best friends that same day and then I didn't say anything to anyone.

There's a woman at work I've been friends with for 7 years or so. I went with her to lunch a few months into my realization and I told her, I knew she was accepting of

transgender people and she was the first person that I would describe as not “family” that I told. Our relationship has only grown and I do see her as family now.

I had a few distant relatives that I knew were allies (a niece, my aunt, my best friend’s parents) I probably had told 8 - 10 people before I just shouted it.

In July 2025, I had been on HRT for just over 2 months, I was 100% sure I never wanted to run on T again and I felt a crushing weight to come out.

This is the order I did everything in:

- I read the employee handbook to check for protections - gender was listed, so I felt secure at work.
- I talked to my therapist about it, she agreed if I felt ready and we both thought it would alleviate my anxiety to do it.
- On the same day - I told my boss, HR, some executives I know at work, some gossipy people I know at work and then I took a week off to let people talk about it without me around.
- That same afternoon I sat down with my siblings and told both of them together. After I talked to them I called my Mom and told her.
- The only people left to tell that were concerning me was my wife’s family, and I let her do that one for me (good choice imo).

What worked? I really am glad with how I did it at work. Taking the time off to let people talk and let the word spread just made it easier for me. I returned the following Monday and let HR know my new name and requested IT change it in the system. I printed a new name tag for my desk that is light pink and light blue and I still smile every day when I see it.

What didn’t work? I flubbed telling my siblings, I got startled, nervous, they are older than me, my sister said awful things to me that I was not prepared for. I could’ve done better with that. I would say if I could redo that part, I would’ve role played with my therapist about dealing with difficult / not accepting people.

Since coming out, my sister and her husband don’t talk to me, my Mom and her husband don’t either, my Dad and stepmom died when I was in my early 20s so my only immediate family left is my brother and while that sounds awful, I am much happier. I don’t have to “people please” anymore, that is so relieving. I get to just be me and I’m getting a lot more comfortable telling people to fuck off.

My kid is young, I didn't come up with any cool nickname or have him switch to Maddy or whatever, he just calls me, "Nova" or "My Nova" which melts my heart when he says it.

I found an amazing discord group and I have found a community there. I hope to grow in my local community as well. My family just relocated closer to the city center and I know of a few other transgender women that have kids at the new school our child attends. *I cannot stress how nice it is to see other LGBTQ+ people at my child's school. It was 100% worth moving.*

Presentation:

TBD:

This section for me isn't something I really do yet, one day hopefully, but today, I boymode 100% of the time unless I'm home and feel like wearing something cute around the house.

I still have serious dysphoria with my face / head / scalp hair and 99% of the pics I have of myself I'm the headless horsewoman or something. I imagine I will feel more confident in the coming months / years.

I'll update here on hair, nails, makeup, clothes as those things change, if they do, if they don't that's fine, I still am transgender and I love me <3 I am no less transgender because I wear boy clothes and I'm not competing with anyone. I'm just finding myself, my authenticity.

I am going to get a tattoo soon, I will meet my artist in January. I'm hoping the area I want to get the tattoo on is hair free by then, let's gooooo IPL.

I do like to paint my nails, I don't have many tips, I'm not great at it.

I am meeting with a voice coach starting in March. I don't know if I'll do anything with it, but I want to try and see what it's like and how my voice can sound.

Name Change:

I legally started the process to change my name - this is the process I am following. **Again I'm not a lawyer, not a doctor, just someone that reads and is passionate about sharing information.**

1. Filed proper documentation with state probate court, waited for the judge to approve, got an official court order.
2. Filed with the Social Security office - scheduled in person meeting, bringing court order, driver's license, birth certificate, passport - probably more than I need but I like to overkill.
3. Once SS is filed and I have the docs showing that the name change is filed →

   Secretary of State / DMV or whatever it's called where you get your license.

   Update driver's license photo / name / gender (not all states let you do gender).

   ******DO NOT FORGET TO UPDATE VOTER REGISTRATION AND VOTE BLUE******
4. File for updated birth certificate in the state I was born in.
5. Once I have my new driver's license, SS card and court order → file docs with

   employer + bank + credit cards + 401k / retirement funds + lawyer + medical

   facilities + credit bureaus (Transunion / Equifax / Experian).
6. Don't forget utilities, cell phone, passport (if you're okay with gender marker).

Common Surgeries:

Orchiectomy - Surgical removal of the testicles, reducing testosterone production and eliminating the need for antiandrogens.

Vaginoplasty - Construction of a vagina and vulva using penile and scrotal tissue, creating a functional vaginal canal with depth. Note dilation is a lifetime commitment.

Zero-Depth Vaginoplasty - Creates external vulva anatomy without a vaginal canal, offering shorter surgery/recovery, no penetrative sex.

Penis-Preserving Vaginoplasty - Creates a vaginal canal while retaining the penis, though options for this are limited and relatively new.

Breast Augmentation - Implant placement to enhance breast size beyond what hormone therapy achieves.

Facial Feminization Surgery (FFS) - Collection of procedures reshaping facial features (forehead, jaw, nose, chin, cheeks) for a more feminine appearance.

Tracheal Shave - Reduction of the thyroid cartilage (Adam's apple) for a smoother neck contour.

Voice Feminization Surgery - Procedures to raise vocal pitch by tightening or shortening vocal cords (less common than voice training).

Body Contouring - Liposuction and fat grafting to create more feminine body proportions (hips, buttocks).

Hair Restoration - Hair transplants or scalp advancement to address male pattern baldness and lower the hairline.

I’ll expand this section eventually. I will also do a lived experience section regarding my orchiectomy as that comes to pass and it will be interesting to see how my feminization changes post op.

~Bye For Now~

This document will be a live document and will grow as I grow through my transition. I have made the URL public and shareable anyone with the link can read it. I have quite a bit of topics I plan to add in the coming weeks / months:

- Medical advocacy and discrimination against transgender women
- Supplements / substances that promote or impede HRT effects
- If I can find data on highest risk for hate crimes, I'd like to look into that and any tips for avoidance / mitigation.
- My experience has been nonlinear; it's like one day I look in the mirror and there she is and then the next it's like where'd she go. I want to read up on the fluxuations of HRT effects.

If you're struggling, I know how hard this is, I see you and you matter. Don't give up. Be kind to yourself and surround yourself with people that accept you, stop trying to make other people get it - they either will in their own time or they aren't worth yours.

With Love,

~ Nova