Transgender Medicine in Primary Care

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Transgender Health Care

Transgender health care includes the prevention, diagnosis and treatment of physical and mental health conditions, as well as sex reassignment therapies, for transgender individuals.

NOTE: THIS IS A HIGHLY SENSITIVE AND DETAILED TOPIC, WHICH WE CANNOT FULLY COVER IN 20 MINUTES. TODAY'S DIDACTIC IS A BROAD OVERVIEW/INTRODUCTION TO THE TOPIC, BUT IS BY NO MEANS COMPREHENSIVE.

Definitions

- Sex: label — male or female — assigned by a doctor at birth based on the genitals and chromosomes
- Gender: A social and legal status, and set of expectations from society, about behaviors, characteristics, and thoughts. Each culture has standards about the way that people should behave based on their gender. This is also generally male or female. But instead of being about body parts, it's more about how you're expected to act, because of your sex.
- Gender Identity: How you feel inside and how you express your gender through clothing, behavior, and personal appearance. It's a feeling that begins very early in life.

Source: Planned Parenthood

Definitions Cont.

- Gender Dysphoria: Distress or discomfort that may occur when gender identity and birth-designated sex are not completely congruent
- Transgender: Umbrella term that is used to describe individuals with gender diversity; it includes individuals whose gender identity is different from their birth-designated sex and/or whose gender expression does not fall within stereotypical definitions of masculinity and femininity; "transgender" is used as an adjective ("transgender people"), not a noun ("transgenders").
    - FTM: female-to-male
    - MTF: male-to-female

Source: UpToDate

Stages of Care

1. Diagnosis
2. Baseline Assessment
3. Initial Treatment
4. Counseling
5. Monitoring

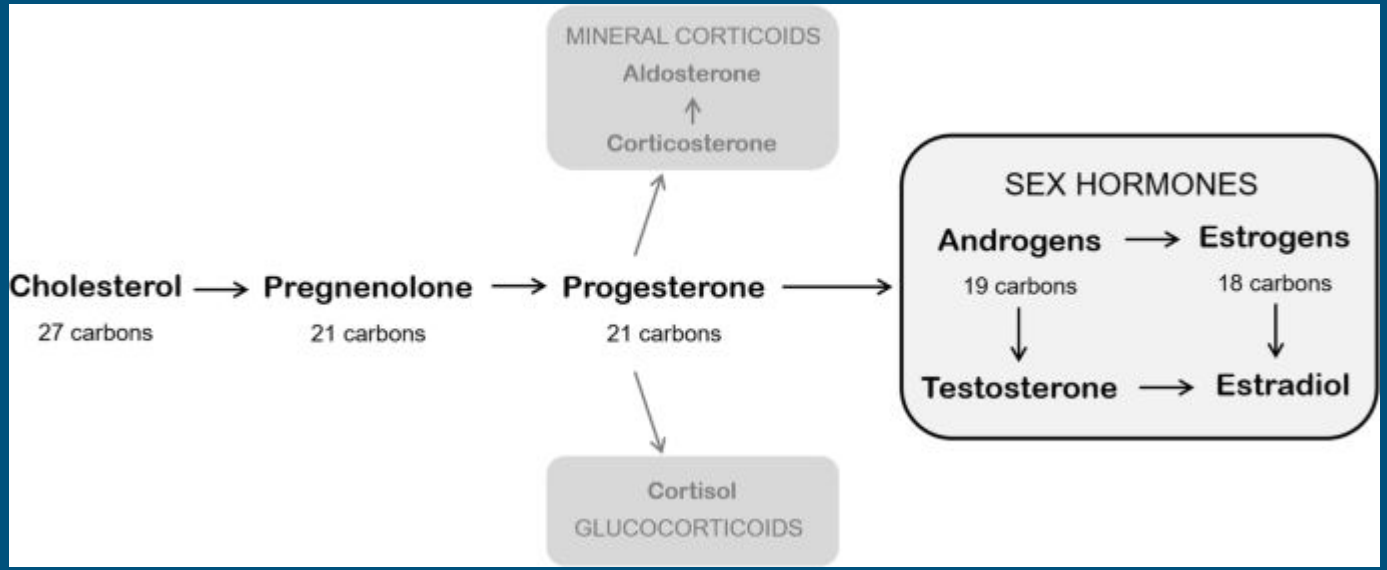
Diagnosis

Sometimes referred to as Gender Dysphoria

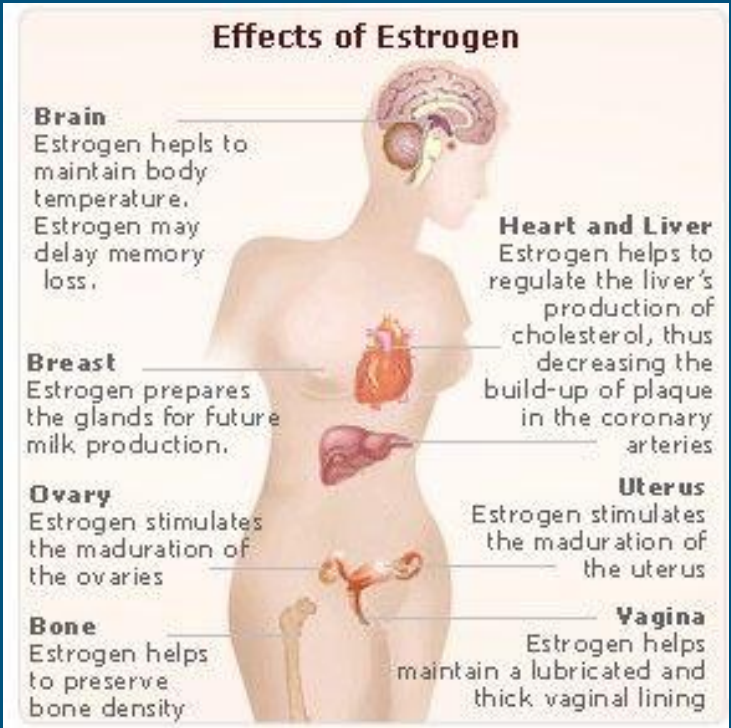
To identify Gender Dysphoria in adults and adolescents, the DSM-5 notes that there is a conspicuous or evident discrepancy with the gender the individual thinks they are and what the culture recognizes. The difference must be evident for a **minimum of half a year and have at least two criteria**, according to the APA.
The criteria are:

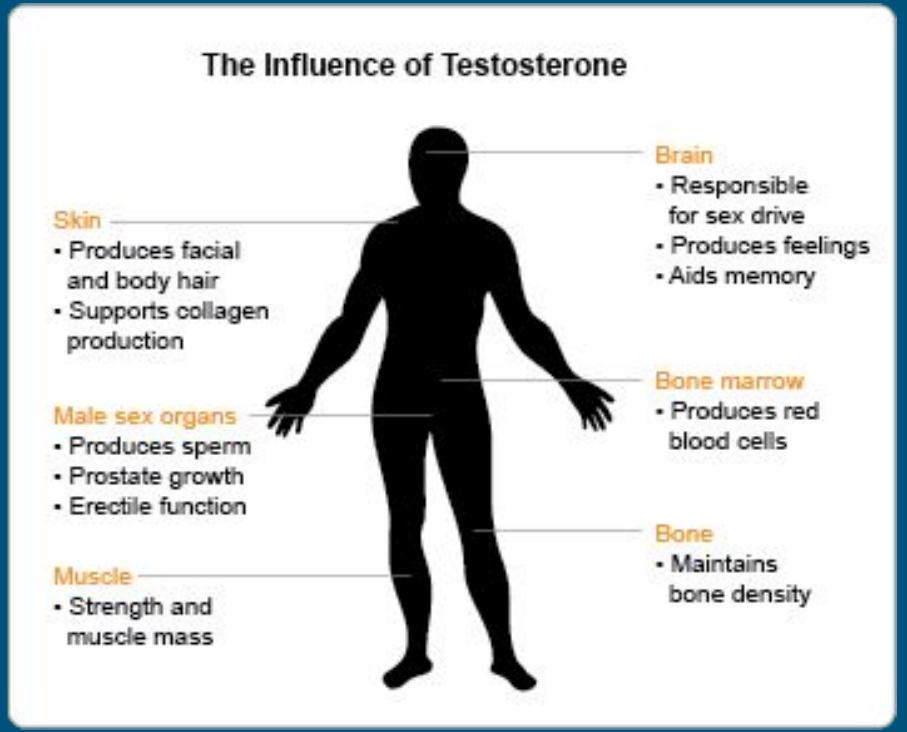
1. Obvious discrepancy in the gender the individual identifies with and designated gender.
2. An extreme want to hide or cover assigned sex appearance.
3. A powerful want to show the sex features of the opposite gender.
4. A serious desire to convert to another gender.
5. An intense desire for others to consider individual as the other gender.
6. Passionately sure that individual has the emotions and reactions that the other gender has.
7. Individual is experiencing anxiety that is causing problems in relationships, with a career and in other parts of life.

Estrogen & Testosterone Pathway



Estrogen & Testosterone Effects





Baseline Assessment

- Thorough H&P
  - Duration of symptoms
  - Blood pressure
  - BMI
- Labs:
  - Lipids
  - A1c
  - CBC
  - Electrolytes + LFTs (CMP)
  - PT/INR & PTT
  - Estrogen & Testosterone levels

Initiation of Therapy

Type	Dose	Comments
Male to Female		
Estrogen		
Oral estradiol	2.0-6.0 mg/d	Consider use sublingually to avoid first-pass effect
Transdermal estradiol patch	0.025-0.4 mg/d twice wk	Preferred to oral to prevent thrombotic events
Parenteral estradiol valerate	5-30 mg IM every 2 wk	Preferred to oral to prevent thrombotic events
or cypionate	2-10 mg IM every wk	
Anti-androgen		
Spironolactone	100-300 mg/d	Check potassium 1-2 wk after initiating
Cyproterone acetate	25-100 mg/d	Not available in US
GnRH agonist (leuprolide)	3.75-7.5 mg IM mo	Often do not use
Female to Male		
Testosterone		
Parenteral testosterone	100-200 mg IM (or SQ) every	If serum testosterone is in lower normal range but patient still has
Enanthate or cypionate	2 wk	low libido, dose can be titrated slowly while monitoring for AEs.
Transdermal testosterone gel	2.5-10 g/d	Gives smoother levels but can rub off on partner or children
Testosterone undecanoate	1,000 mg every 12 wk	Not available in US

Counseling Patients: what to expect after starting hormone therapy?

Male to Female	Female to Male
Redistribution of body fat Decrease in muscle mass and strength Softening of skin/decreased oil Decreased sexual desire & spont erection Breast development Decreased testicular volume & sperm production Decreased body hair growth, thicker scalp hair growth Voice changes	Redistribution of body fat Increased muscle mass/strength Increased skin oiliness/acne Clitoral enlargement & vaginal atrophy Facial/body hair growth & scalp hair loss Cessation of menses Deepening of voice

Monitoring of Therapy

Male to Female	Female to Male
Evaluate the patient every 2-3 mo in first year, then 1-2 times per y	Evaluate the patient every 2-3 mo in first y then 1-2 times per y
Measure serum testosterone and estradiol every 3 mo during the first y, then every 6 mo the 2nd y, and then yearly; goal total testosterone level should be < 50 ng/dL and estradiol < 200 pg/mL; prolactin should be checked at baseline and then at least annually during the transition and then every 2 y	Measure testosterone every 2-3 mo until level in normal physiologic range, then every 6 mo the 2nd year, then yearly; check prolactin if patient has any symptoms
If on spironolactone: check serum electrolytes every 3 mo for the first y and then yearly	Measure estradiol level during first 6 mo of treatment or until no bleeding for 6 mo
Check CBC, LFT at baseline and follow-up visits	Check CBC, LFT at baseline and follow-up
Lipid panel: based on USPSTF recommendations	Lipid panel: based on USPSTF recommendations
HbA_{1c}: based on USPSTF recommendations	HbA_{1c}: Based on USPSTF recommendations

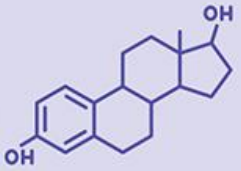
Treatment Target

Male to Female	Female to Male
Estradiol between 100-300 pg/mL Testosterone <50 ng/dL	Testosterone 300-1000 ng/dL

Reference Range Intervals

Estradiol

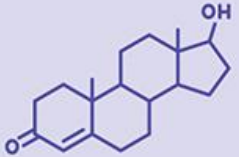
- Males: 10-40 pg/mL
- Females:
  Premenopausal: 15-350 pg/mL*
  Postmenopausal, or on aromatase inhibitors: <10 pg/mL



*Estradiol concentrations vary widely throughout the menstrual cycle; in women undergoing ovarian stimulation treatment, levels of estradiol as high as 2,000 pg/mL have been observed.

Testosterone

- Females:
  Premenopausal: <50 ng/dL
- Males: 320-1,000 ng/dL



References 16 and 17

Primary Care Screening Guidelines

	Female-to-Male	Male-to-Female
Cardiovascular Risk	As per USPSTF for all individuals *Estrogen may increase risk of DM2, hyperlipidemia so can consider annual screening in MTF**	
Osteoporosis	Gonadectomy + 5 years without hormone replacement → DEXA Age 50-64 + on androgen suppression 65+ everyone - DEXA	
Breast Cancer	USPSTF guidelines if breast tissue present Annual chest wall/axillary exams for those without breast tissue	No screening unless many risk factors (>50 yo, family history, estrogen/progestin use <5 years, BMI > 35)
Cervical Cancer	Same as natal females	None
STI/HIV	As per USPSTF for all individuals	
Lung & colon cancer	As per USPSTF for all individuals	

More To Consider

- Patient communication skills
- Mental health
- Cultural considerations - social work, asylum status, family and relationship dynamics
- Fertility/family planning
- Sexual & urologic function
- Surgical intervention

CASE

DM is a 45 MTF transgender EHHOP patient with a PMHx obesity and hypertension. She is interested in initiating hormone therapy.

- What do you want to ask her?
- What would you prescribe her?
- When should she come back to EHHOP?

Key Points

- Transgender health care is defined as:
- It is important to communicate sensitively with patients when discussing gender identity.
- Primary care providers can provide hormone care for transgender patients, according to endocrine society guidelines, as long as regular monitoring and patient counseling regarding expected physiologic changes is provided.
- Routine screening guidelines may change for transgender patients depending on anatomy and hormone therapy.

More Reading

Endocrine Society Guidelines (Clinical Update 2017)

Planned Parenthood

Systematic Review (Federal Practitioner 2018)

UpToDate