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Health Care for Transgender Patients

Outline

- Disclosures (None)
- Off label drug use
- Definitions
- Health care disparities for TG patients
- Gender-affirming care
  - Mental health care
  - Cross-gender hormones
  - Surgical options
- Preventive care concerns

What I won't do

- I won't share data on comparisons of various cross-gender hormone regimens (there is no data to share!)
- I won't discuss **intersex** or other **disorders of sexual development (DSD)**
- I won't discuss insurance coverage
- I won't show pictures of genital reconstruction
- I won't pretend to be an expert

Definition

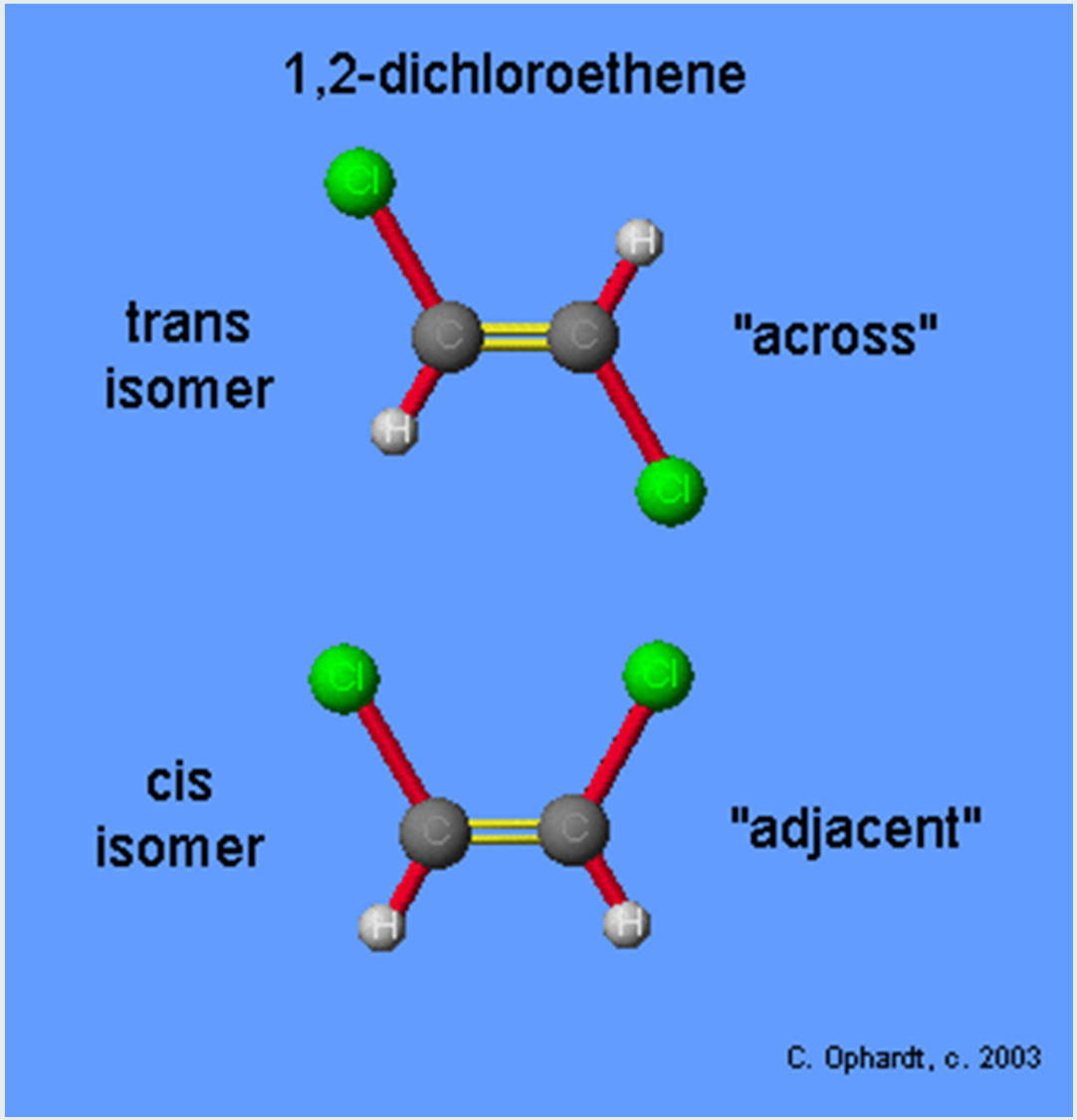
- **Transgender** (sometimes shortened to **trans** or **TG**) people are those whose psychological self **("gender identity")** differs from the social expectations for the physical **sex** they were born with.
- **Gender nonconforming**
- **Gender variant**

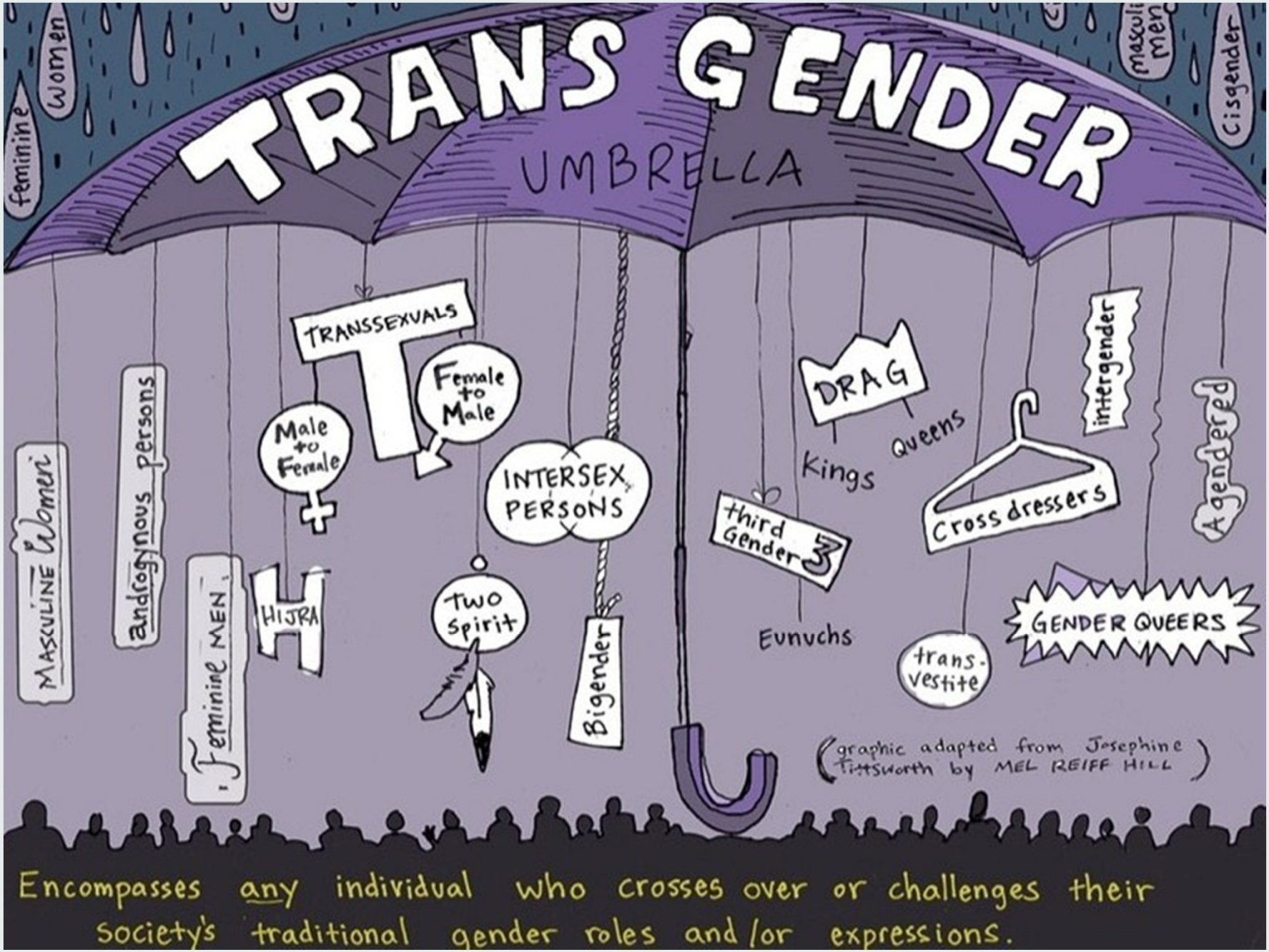
More definitions

- MTF
- FTM

- Transgender woman or transwoman
- Transgender man or transman

Cis vs Trans


1,2-dichloroethene
trans isomer
"across"
cis isomer
"adjacent"
C. Ophardt, c. 2003


TRANS GENDER
UMBRELLA
feminine
women
masculi
men
Cisgender
TRANSSEXUALS
Female to Male
Male to Female
INTERSEX PERSONS
DRAG
Kings
Queens
intergender
Agendered
Masculine Women
androgynous persons
Feminine MEN
HIJRA
two spirit
Bigender
third Gender 3
Eunuchs
Cross dressers
trans-vestite
GENDER QUEERS
(graphic adapted from Josephine Tittsworth by MEL REIFF HILL)
Encompasses any individual who crosses over or challenges their society's traditional gender roles and/or expressions.

More definitions

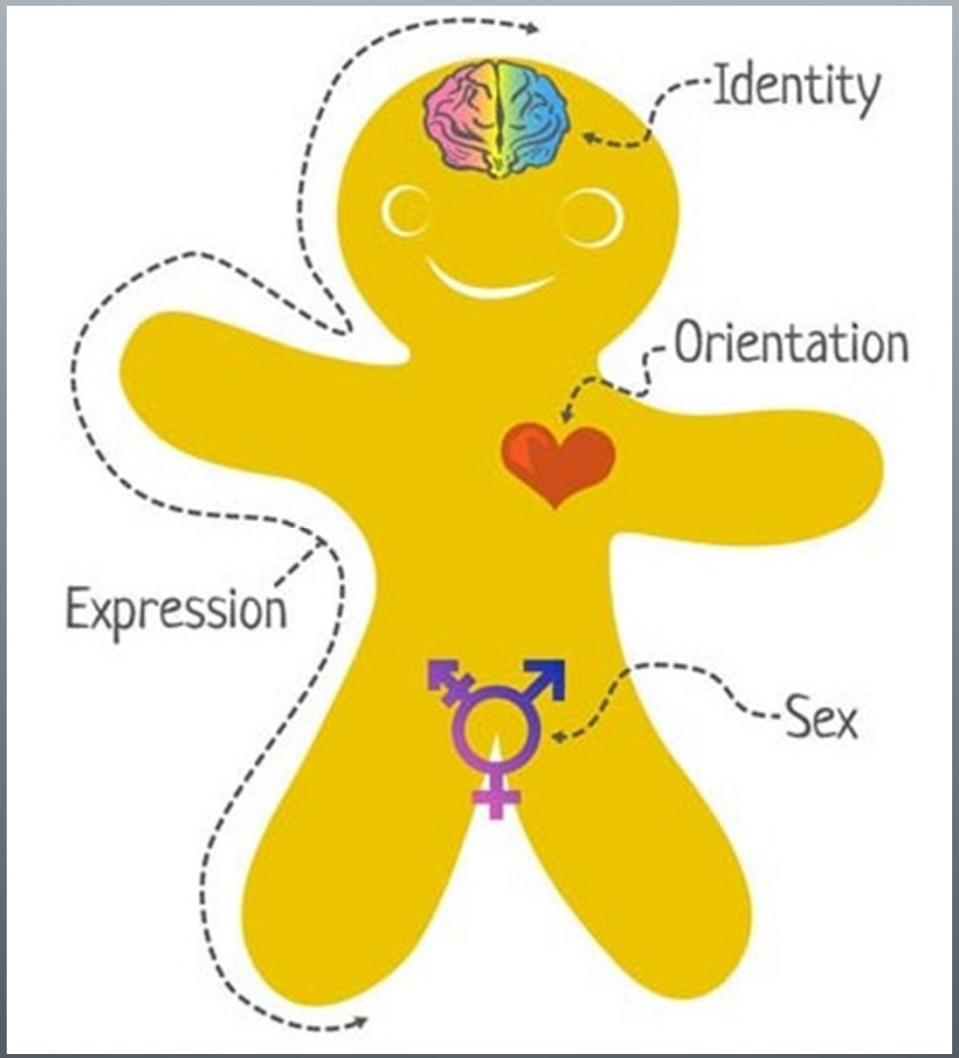
- In May 2010, WPATH released a statement urging the de-psychopathologization of gender nonconformity.
  - "The expression of gender characteristics, including identities, that are not stereotypically associated with one' s assigned sex at birth is a common and culturally-diverse human phenomenon that should not be judged as inherently pathological or negative."

WPATH Board of Directors, 2010

More definitions

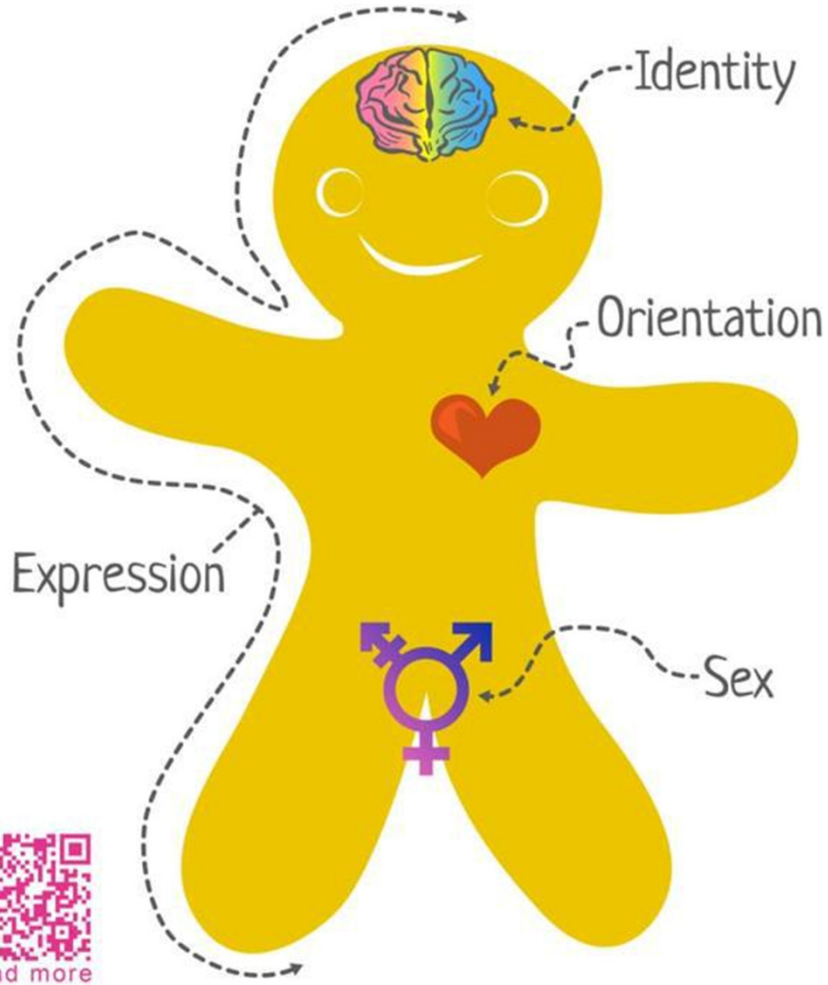
- **Gender identity disorder**
- **Gender dysphoria** – will be in the DSM-V
  - Not all gender variant patients or gender nonconforming patients will have gender dysphoria

The Genderbread Person



The Genderbread Person

by www.ItsPronouncedMetrosexual.com



Gender Identity

Woman — Genderqueer — Man

Gender identity is how you, in your head, think about yourself. It's the chemistry that composes you (e.g., hormonal levels) and how you interpret what that means.

Gender Expression

Feminine — Androgynous — Masculine

Gender expression is how you demonstrate your gender (based on traditional gender roles) through the ways you act, dress, behave, and interact.

Biological Sex

Female — Intersex — Male

Biological sex refers to the objectively measurable organs, hormones, and chromosomes. Female = vagina, ovaries, XX chromosomes; male = penis, testes, XY chromosomes; intersex = a combination of the two.

Sexual Orientation

Heterosexual — Bisexual — Homosexual

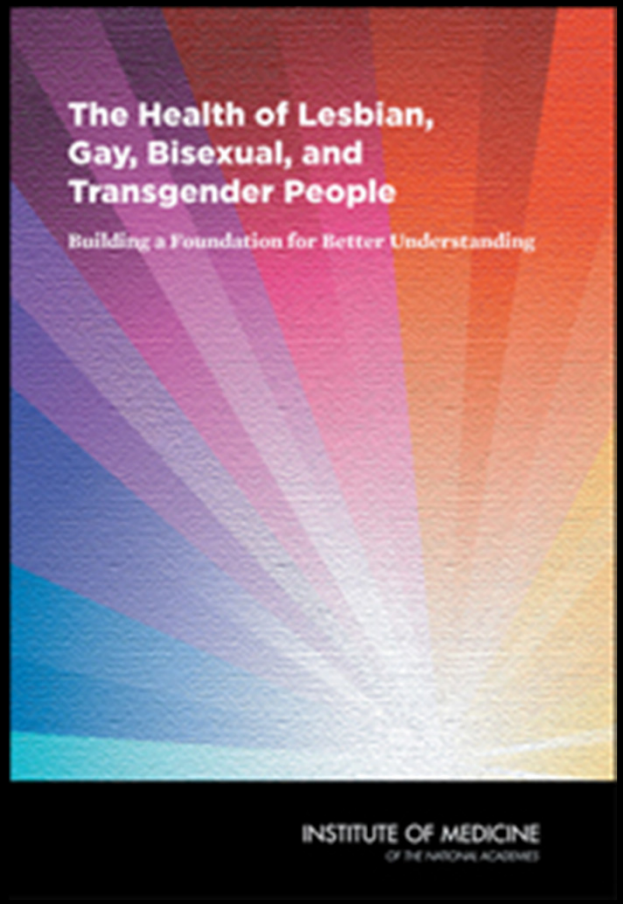
Sexual orientation is who you are physically, spiritually, and emotionally attracted to, based on their sex/gender in relation to your own.

Key points

- Gender ≠ Sex
- Gender identity is distinct from sexual orientation despite "GLBT"
- Many people use the word transgender to mean different things
- Many patients may fit under the "Transgender umbrella" yet not describe themselves as transgender

Health Care Disparities

Healthy People 2020



Transgender Health Disparities

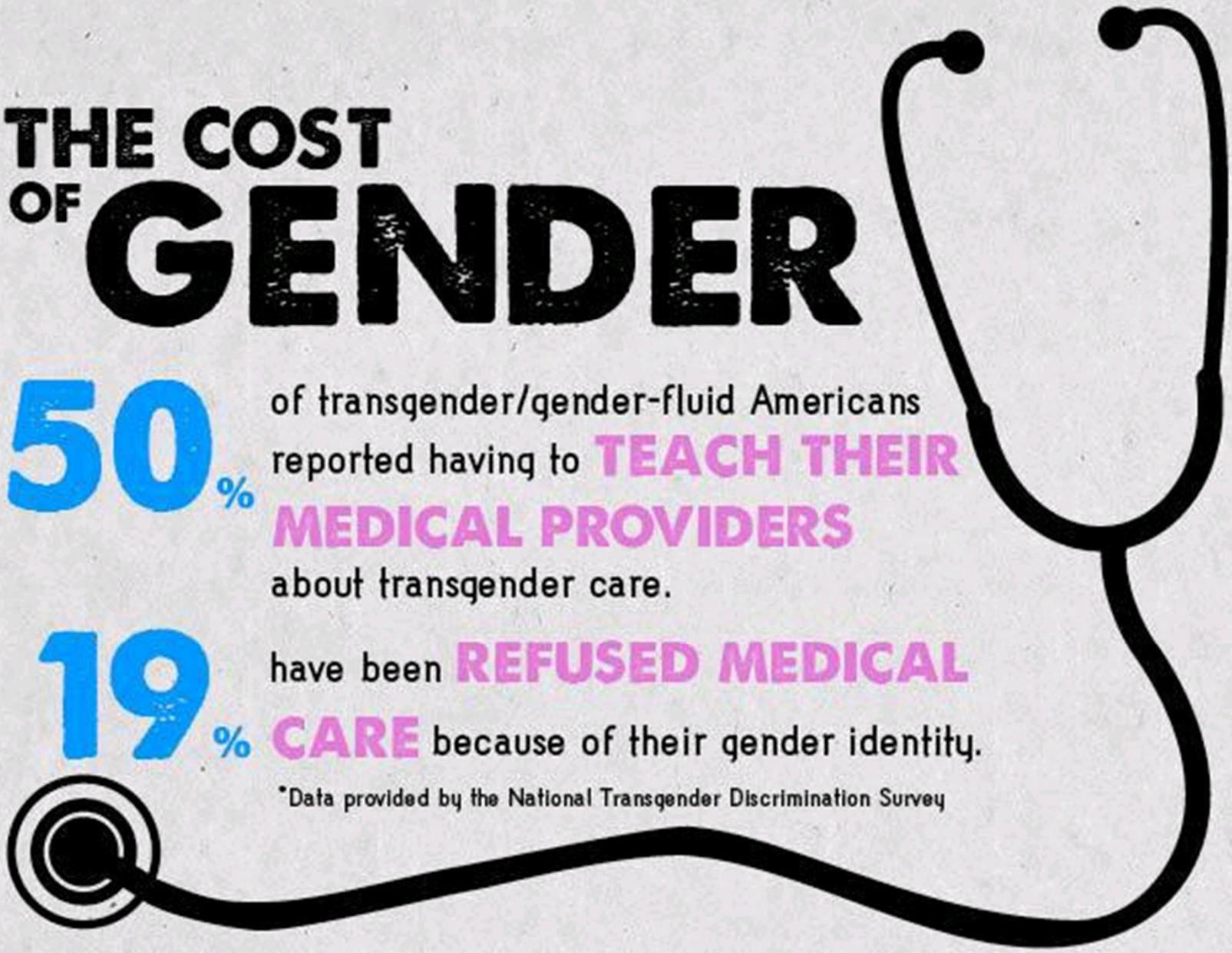
- Violence
- HIV
- Substance Abuse
- Suicidal Ideation and Attempt
- Lack of Health Insurance

THE COST OF GENDER

50% of transgender/gender-fluid Americans reported having to **TEACH THEIR MEDICAL PROVIDERS** about transgender care.

19% have been **REFUSED MEDICAL CARE** because of their gender identity.

*Data provided by the National Transgender Discrimination Survey



The Impact of Stigma on Mental and Behavioral Health: The Research

- Majority of studies on transwomen (MTF) only
- Suicidal thoughts (54%) attempts (31%) (Herbst et al., 2008)
- Depression (62%) (Clements-Nolle et al., 2001)
- Substance abuse
  - IDU (12%)
  - Crack or other Illicit drugs (27%)
- HIV prevalence: (Herbst et al., 2008)
  - ~16% white and Hispanic
  - 56% African-American

Violence

2008 National Transgender Discrimination Survey

6450 respondents

What is your primary gender identity today?

- ❑ Male/man
- ❑ Female/woman
- ❑ Part time as one gender, part time as another
- ❑ A gender not listed here, please specify_____

Gender not listed here= 860/6450

- Genderqueer
- Pangender
- Third Gender
- Genderfluid
- Hybrid
- In-between
- Non-binary
- Androgynous
- Blended
- Two-spirit

"Gender not listed here"

- Avoid or delay health care when sick or injured due to fear of discrimination 36% (vs 27%)
- Physical assault 32% (vs 25%)
- Sexual assault 15% (vs 9%)
- Past suicide attempts 43% (vs 40%)
  - (compare with U.S. overall rate of 1.6%)

Health Care Access

- 25% of TG patients: provider did not approve of “gender change”
- 30% found willing provider who lacked knowledge of how to provide treatment
- ¼ to 1/3 felt that being transgender affected both their access to care and interaction with providers

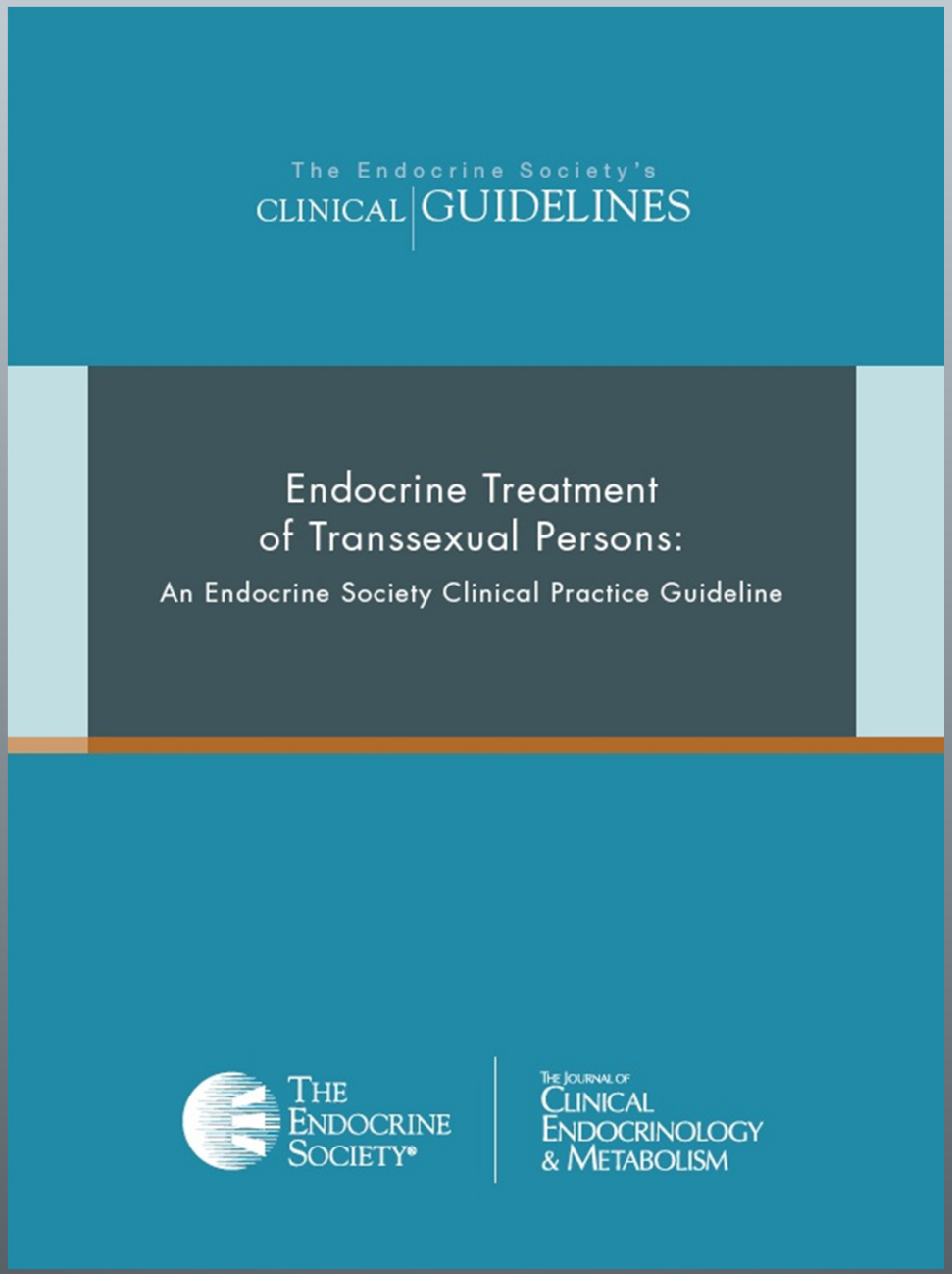
Whittle et al Transgender Euro Study 2008

Multidisciplinary approach to care

- Mental Health Assessment
- Real Life experience
- Hormonal Therapy
- Surgical Treatment
- Continuing Care

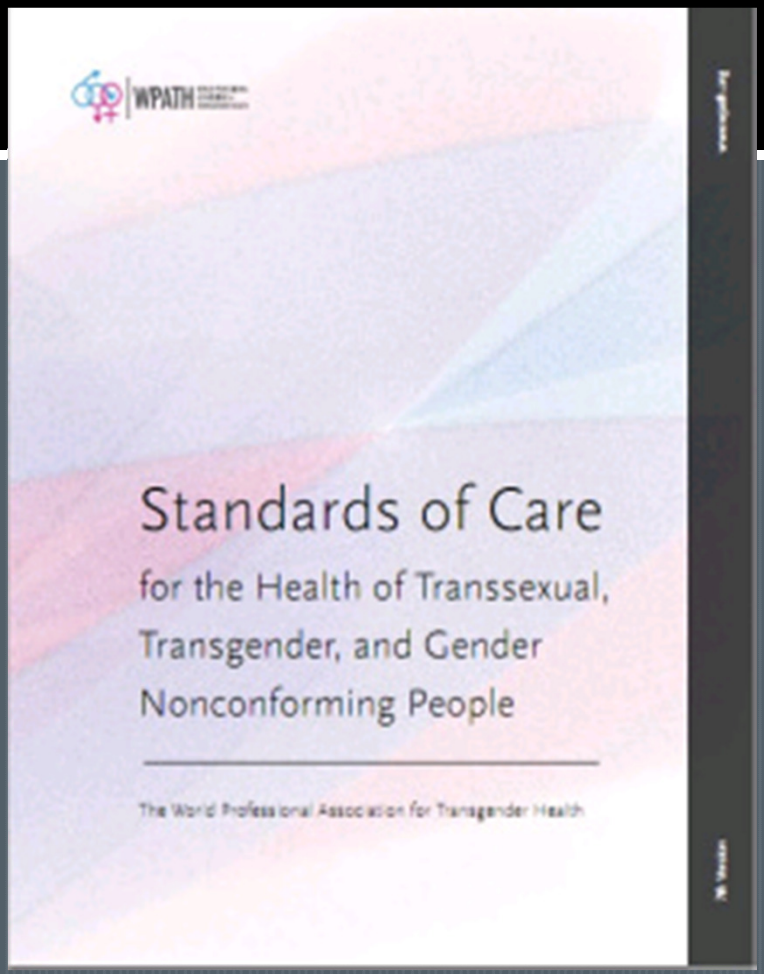
Standards of care

- WPATH
  - www.wpath.org
- Vancouver Coastal Health
  - http://www.celebratevgh.ca/transhealth
- Endocrine Society
  - http://www.endo-society.org
- UCSF Center for Excellence
  - http://transhealth.ucsf.edu


The Endocrine Society's
CLINICAL GUIDELINES
Endocrine Treatment
of Transsexual Persons:
An Endocrine Society Clinical Practice Guideline
THE ENDOCRINE SOCIETY®
THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM

WPATH

"To provide clinical guidance for health professionals to assist transsexual, transgender, and gender nonconforming people with safe and effective pathways to achieving lasting personal comfort with their gendered selves, in order to maximize their overall health, psychological well-being, and self-fulfillment."



Overview of Therapeutic Approaches for Gender Dysphoria

- Some patients require neither hormones nor surgery
  - Changes in gender role and expression may be sufficient to alleviate symptoms
- Some may need change in gender role along with hormones, but no surgery
- Others may need change in gender role along with surgery but no hormones
- Individualized approach

Change in gender expression

- Peer support resources
- Voice and communication therapy
- Hair removal
- Breast binding or padding
- Padding of hips and buttocks
- Genital tucking or prostheses
- Name and gender marker changes on identity documents

Role of Mental Health Providers

- Assess gender dysphoria
- Provide information regarding options for gender identity and expression and possible medical interventions
- Assess, diagnose and discuss treatment for co-existing mental health concerns
- If applicable, assess eligibility, prepare, and refer for hormone therapy
- If applicable, assess eligibility, prepare, and refer for surgery

Some Example Discussion Points

- Have you ever had any concerns relating to your gender? Do you currently have concerns or questions relating to your gender?
- How do you feel about being transgender? Are there any cultural or religious conflicts for you as a transgender person?
- Have you ever pursued any changes to your appearance or body to bring it closer to your sense of self? Do you have any concerns relating to this now?
- Have you ever sought to change your body through hormones/surgery? Is this something you have thought about pursuing in the future? (Bockting et al., 2006)

Real Life Experience

- Trial of Real Life Experience (RLE): "The act of fully adopting a new or evolving gender role or gender presentation in everyday life."
- Not a diagnostic test, but a way to experience "resolve" and "capacity to function in preferred gender role"
- Seen from some perspectives as a necessity before being "eligible" for genital surgery
- To have RLE as a male, breast surgery may be necessary. Impossible to make RLE a requirement
- Not necessary for hormone or breast/chest/facial/voice altering therapies
- From an individual perspective, terminology is often viewed negatively

"What Has Life Been If Not Real?"

Hormone Therapy

- Feminizing or masculinizing hormone therapy is a **medically necessary** intervention for many people with gender dysphoria

Criteria for hormone therapy

- Persistent, well-documented gender dysphoria
- Capacity to make a fully informed decision and to consent to treatment
- Age of majority
- If significant medical or mental health concerns are present, they must be reasonably well-controlled

Risks of Hormone Therapy

Risk Level	Feminizing Hormones	Masculinizing Hormones
Likely increased risk	Venous thromboembolic disease Gallstones Elevated liver enzymes Weight gain Hypertriglyceridemia	Polycythemia Weight gain Acne Androgenic alopecia (balding) Sleep apnea
Likely increased risk with presence of additional risk factors	Cardiovascular disease	
Possible increased risk	Type II Diabetes	Destabilization of certain psychiatric disorders Cardiovascular disease Hypertension Type II Diabetes
No increased risk or inconclusive risk	Breast cancer	Loss of bone density Breast cancer Cervical cancer Ovarian cancer Uterine cancer

Who should be prescribing hormones?

- With appropriate training, can be managed by a variety of providers
- Medical visits relating to hormone therapy provide opportunity to deliver broader care to a population that is often medically underserved
- Many of the screening tasks and management of co-morbidities such as cardiovascular risk factors and cancer screening fall uniformly within the scope of primary care

Responsibilities of hormone-prescribing medical providers

- Initial evaluation (discussion of patient goals, health history, physical, risk assessment, relevant labs)
- Discuss expected effects
- Confirm capacity to understand risks and benefits
- Provide ongoing medical monitoring
- Communicate with any other members of team (mental health professional, surgeon)
- Provide any necessary documentation

Risk assessment for masculinizing hormones

- Absolute contraindications:
  - Pregnancy
  - Unstable coronary artery disease
  - Untreated polycythemia with HCT >55%
  - History of breast cancer or other estrogen-sensitive cancers…consult oncologist
  - Signs and symptoms of PCOS should be evaluated as symptoms may worsen on testosterone

Baseline labs for masculinizing hormones

- CBC
- Lipid profile
- Liver profile

Laboratory monitoring FTM

- Every three months for first year:
  - CBC
  - LFTs
  - Lipid profile
- Check testosterone at one year
  - Goal 350-700 ng/dl
- Follow-up every 6-12 months

Medical management FTM

- Testosterone
  - IM cypionate/enanthate
    - Cheap
    - Requires self-injection (or by friend/partner) q 1-2 weeks
      - Sub-Q?
    - Peaks and troughs
  - Transdermal
    - Androgel 1-5 pumps/day
    - Androderm 2.5-10 mg/day
    - Compounded creams
  - Topical testosterone to clitoris

Masculinizing Hormones

Effect	Expected Onset	Expected Maximum Effect
Skin oiliness/acne	1-6 months	1-2 years
Facial/body hair growth	3-6 months	3-5 years
Scalp hair loss	>12 months	Variable
Increased muscle mass/strength	6-12 months	2-5 years
Body fat redistribution	3-6 months	2-5 years
Cessation of menses	2-6 months	n/a
Clitoral enlargement	3-6 months	1-2 years
Vaginal atrophy	3-6 months	1-2 years
Deepened voice	3-12 months	1-2 years

Other issues while on testosterone

- Male pattern baldness: May treat with Minoxidil
- Vaginal atrophy: May use topical estrogen creams
- Acne: treat in a number of ways, including use of retinoids
- Irregular menses: may use progesterone, though patient usually without menses after first few months

Risk assessment for feminizing hormone therapy (MTF)

- Contraindications to estrogen:
  - Previous venous thrombotic events related to underlying hypercoagulable condition
  - History of estrogen-sensitive neoplasm
  - End-stage chronic liver disease
- Tobacco use associated with increased risk of thrombosis

Baseline labs for feminizing hormones

- Lipid profile
- Fasting blood glucose or A1c
- Liver profile
- Prolactin
- Electrolytes
- BUN/Creatinine

- Consider CBC, coagulation profile, if indicated

Feminizing hormones (MTF)

- Estrogens (use 17-β estradiol)
  - IM (estradiol valerate) 20-40 mg q 1-2 weeks
    - Cheap ($40 for 4-6 months)
    - Requires injection
    - Peak/Trough
    - Safe
  - Oral
    - Daily or BID oral estradiol 2-8 mg daily
    - Relatively constant levels
    - Higher VTE risk
    - Higher first pass metabolism (monitor LFTs)
    - Cheap

Feminizing hormones

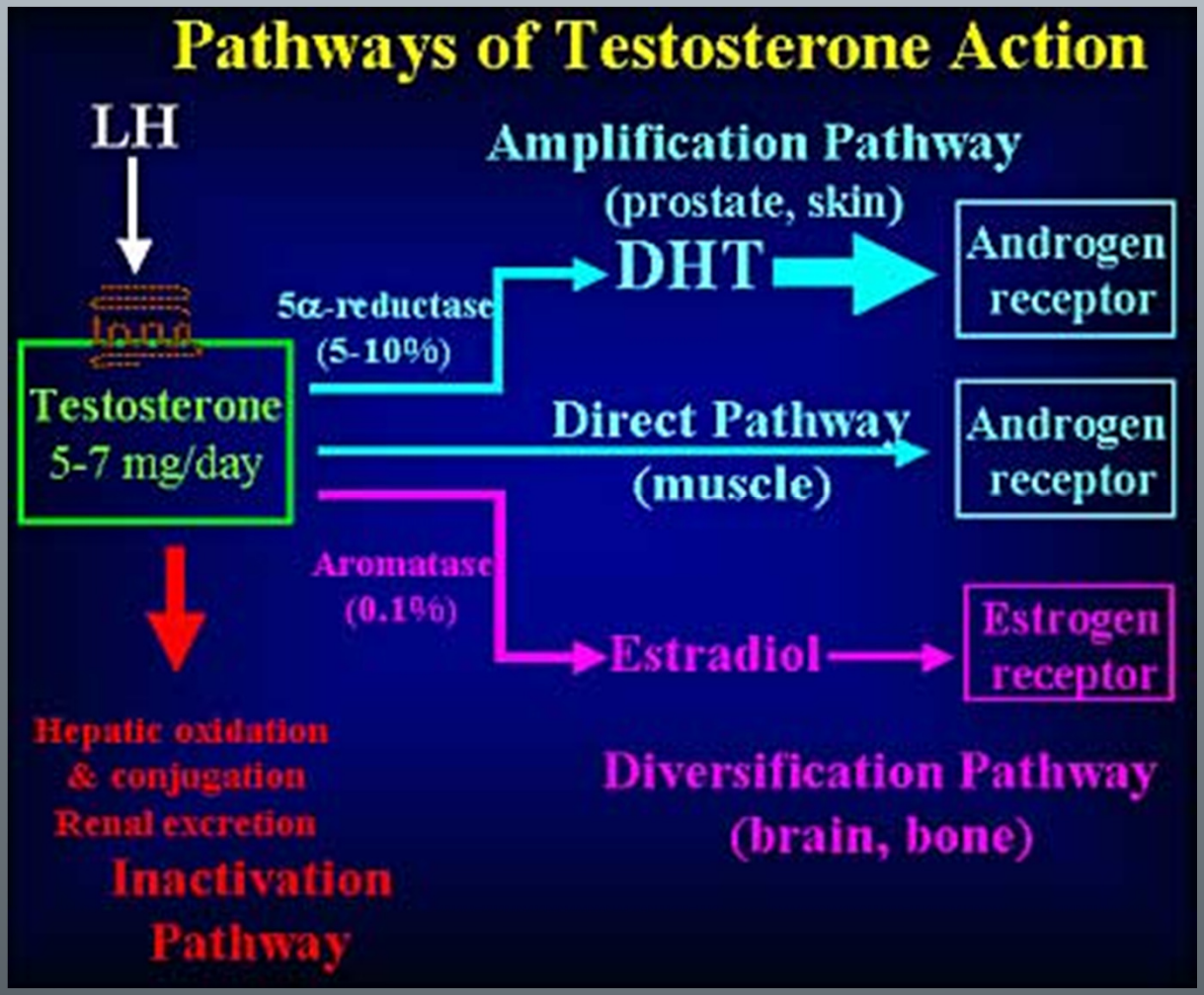
- Estrogen, (continued)
- Sublingual
  - Cheap,
  - Easy
  - Avoids first pass effects
  - Same dose as oral
  - Increases "burst" response. Possible divided dose?
- Transdermal
  - Expensive ($100/month)
  - Skin irritation
  - Most constant blood levels
  - Very safe

Feminizing hormones

Effect	Expected Onset	Expected Maximum Effect
Body fat redistribution	3-6 months	2-5 years
Decreased muscle mass	3-6 months	1-2 years
Softening of skin/decreased oily	3-6 months	Variable
Decreased libido	1-3 months	1-2 years
Decreased spontaneous erections	1-3 months	3-6 months
Male sexual dysfunction	Variable	Variable
Breast growth	3-6 months	2-3 years
Decreased testicular volume	3-6 months	2-3 years
Decreased sperm production	Variable	Variable
Thinning of body and facial hair	6-12 months	>3 years

Testosterone blockade

- Controversial
- Allows more effective feminization at lower estradiol levels
- Prevents further virilization/hair loss


Pathways of Testosterone Action
LH
Amplification Pathway
(prostate, skin)
DHT
Androgen receptor
5α-reductase
(5-10%)
Testosterone
5-7 mg/day
Direct Pathway
(muscle)
Androgen receptor
Aromatase
(0.1%)
Estradiol
Estrogen receptor
Hepatic oxidation
& conjugation
Renal excretion
Inactivation Pathway
Diversification Pathway
(brain, bone)

Testosterone blockade (cont'd)

- Spironolactone
  - Blocks androgen receptors
  - Risks: hyperkalemia, orthostasis, volume depletion, polyuria
- Cyproterone acetate (CPA)
  - Androcur, Cyprostat
  - Androgen receptor antagonist
  - Blunts secretion of LH/FSH
  - Weak progestin effect
  - Not available in U.S.
  - Concerns about liver toxicity

Testosterone blockade (cont'd)

- 5-alpha reductase inhibitors (finasteride, dutasteride)
  - Beneficial effects on scalp hair loss, body hair growth, sebaceous glands, skin consistency
- GnRH agonists (goserelin, buserelin, triptorelin)
  - Expensive, available only as implants or injections

Progestins

- Controversial
- Some clinicians feel necessary for breast development
- Possible side effects: weight gain, depression, lipid changes, possible increased breast cancer risk, possible increased CV risk

Monitoring efficacy of MTF hormones

- Best assessment is clinical response
- Follow monthly after dosing change, and q3-4 months for first year

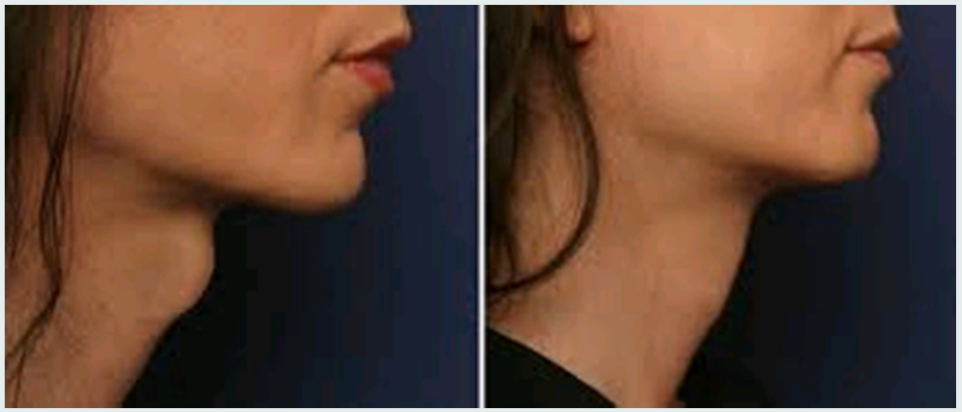
- Testosterone levels
  - Not likely to be helpful (vary widely over a day)
  - Suppress below upper limit of normal female range

- Estrogen levels
  - Can help if unsatisfactory response (breast growth/feminization) Maintain in pre-menopausal female range

Surgical options for gender-variant patients

Surgical management MTF

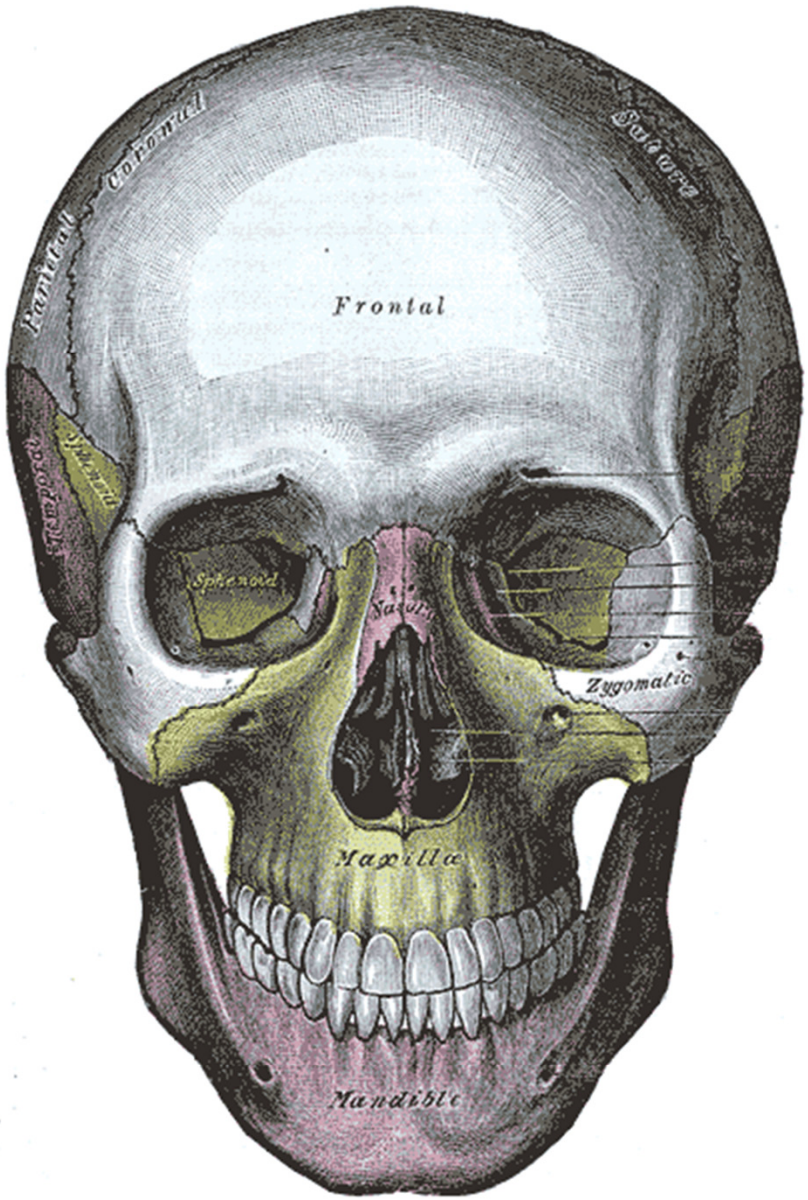
- Facial hair removal
  - Electrolysis
  - Laser
- Tracheal shave
  - Most common surgical
  - Potential for scarring (rare)
  - Vocal damage (rare)



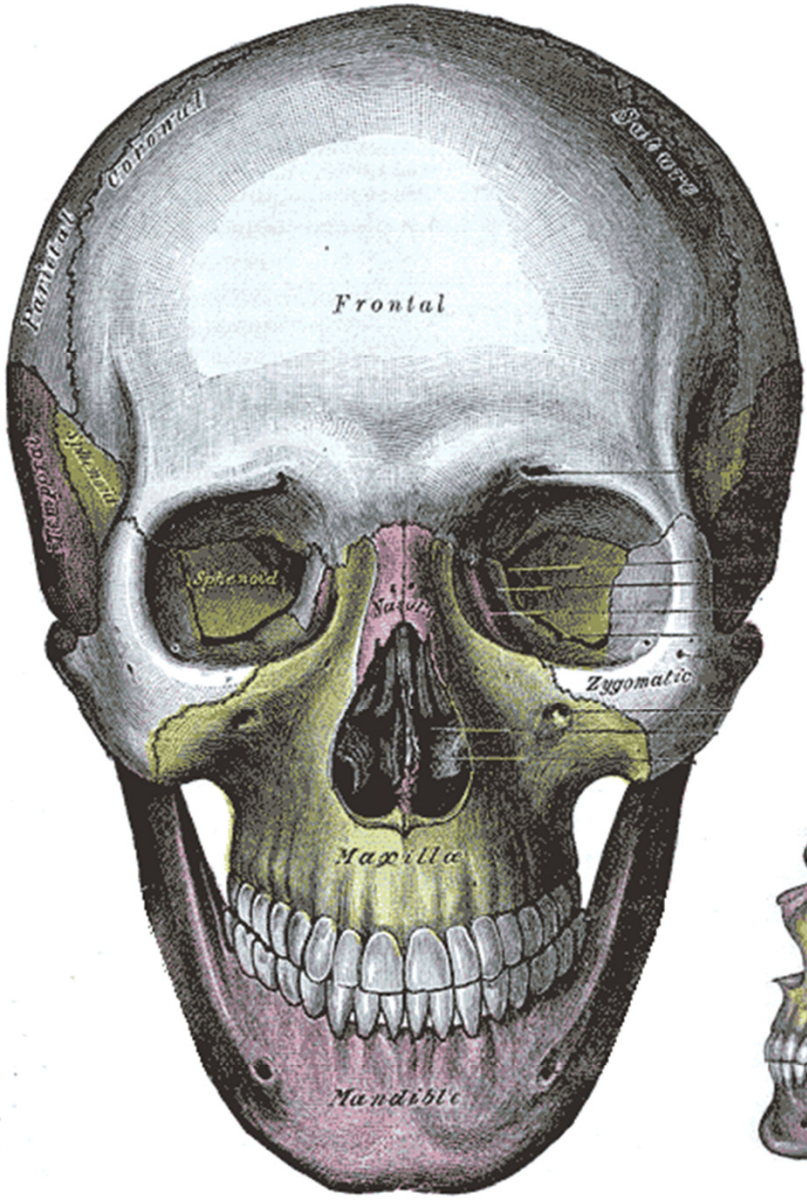
Surgical management- MTF

- Facial feminization surgery (FFS)
  - Sliding genioplasty
  - Brow shave
  - Scalp reduction
  - Hair transplantation
  - Rhinoplasty

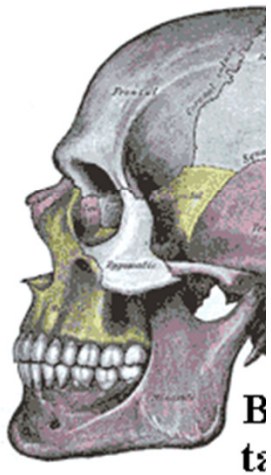
Transgenderzone.com



Male skull before jaw tapering. Notice the outward flare on the left and right before the jaw tapering procedure.



Notice the taper of the jaw after the flare on the right and left have been removed.



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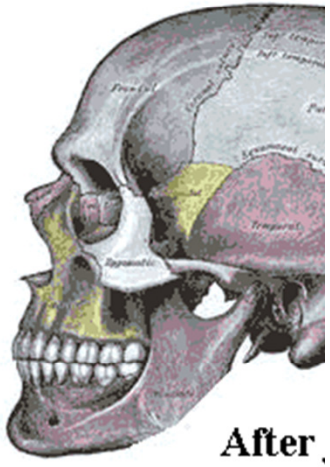

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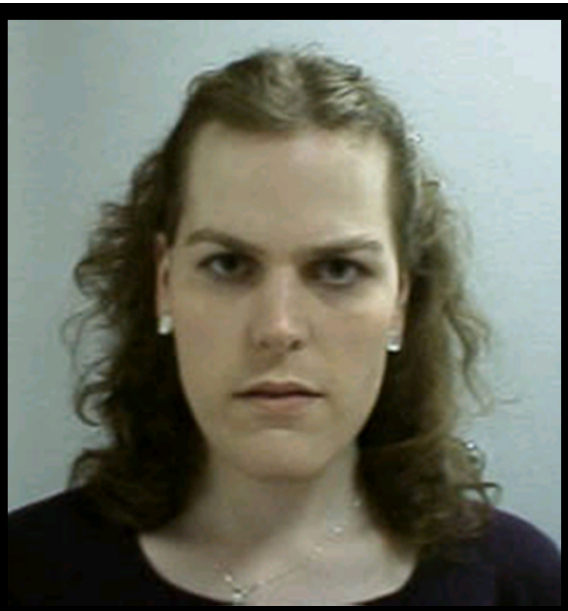


www.cinematter.com

Facial Feminization surgery

www.drspiegel.com

Surgical management – MTF

- Orchiectomy
  - With or without removal of scrotum
- Breast augmentation
- Silicone
  - Questionable safety
- Voice surgery
  - Rarely done now
  - High risk of complications

Beware pumping parties

Gender Affirmation Surgery (GAS)
Sex Reassignment Surgery (SRS)
Genital Reconstruction Surgery (GRS)

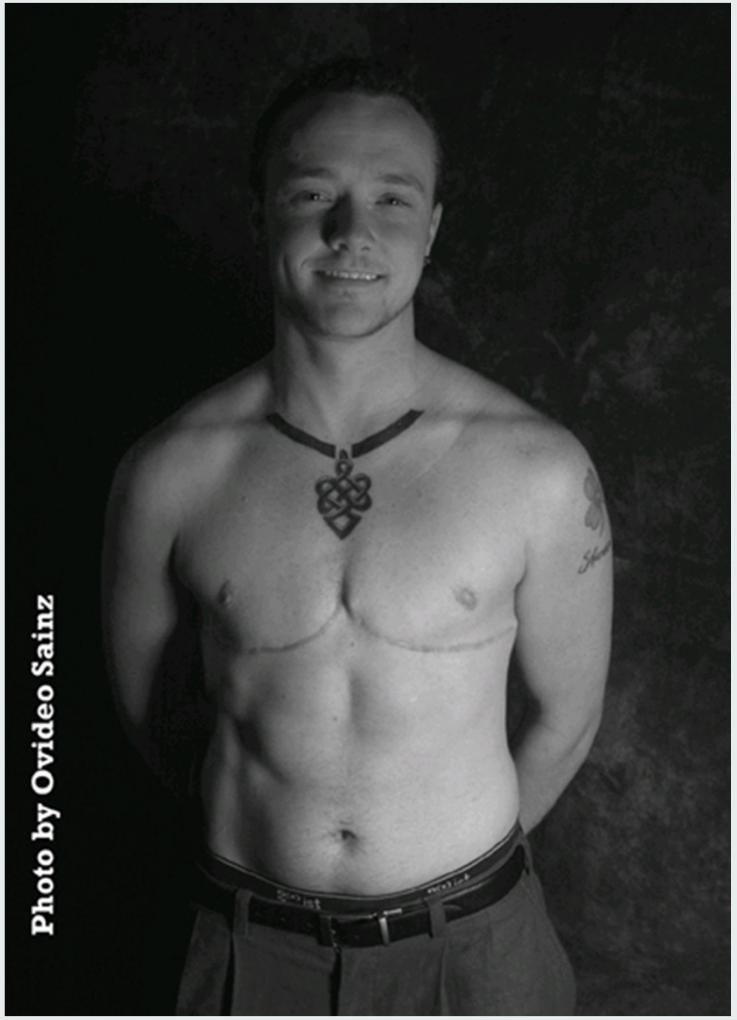
- Surgery has proven to be an effective intervention for the patient with gender dysphoria
- Patient satisfaction following surgery is high (Lawrence 2003), and reduction of gender dysphoria following surgery has psychological and social benefits
- As with any surgery, the quality of care provided before, during, and after surgery has a significant impact on patient outcomes
- Not for everyone! Is the patient ready?
- Insurance coverage often difficult to obtain

Surgical management MTF

- Labiaplasty (using scrotal tissue)
- Vaginoplasty
  - "neo-vagina"
  - Many patients travel to Thailand and elsewhere (save $10k off US $15k-$25k)
  - Penile inversion
    - Requires lubrication
    - May be problems with depth
    - Requires frequent dilation
  - Colon graft
    - Self-lubricates
    - Higher risk surgery
  - Depth and dilation not a problem

Surgical management FTM

- Chest reconstruction
  - Bilateral periareolar
  - Nipple/areolar reconstruction



Surgical management FTM

- Scrotoplasty
  - Dissection/expansion of labia
  - Testicular implants

  - Metoidioplasty
    - Release of clitoral suspensory ligament
    - With previous testosterone therapy, clitoris may gray up to 2”
    - May or may not allow penetration of partner
    - Urethroplasty (extension through enlarged clitoris) is done by some surgeons; higher risk of complications

Surgical Management FTM

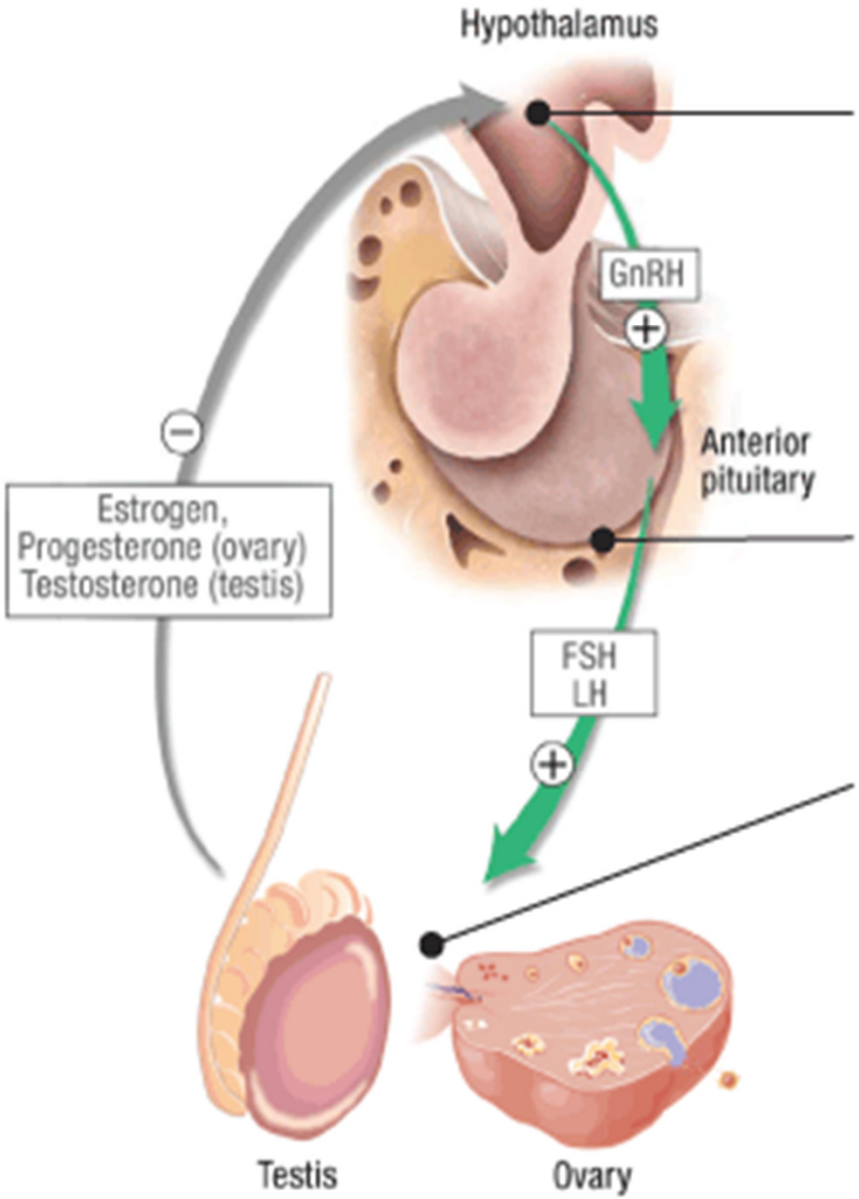
- Phalloplasty
  - Often multiple procedures
  - Very expensive
  - Up to one year recovery time
  - Free forearm flap
  - Abdominal/thigh muscle flap
- Hysterectomy/Salpingoophorectomy
  - Should be considered within 5 years of beginning testosterone due to poorly defined ovarian/endometrial cancer risks

Trans Youth

- Growing awareness
- Area of debate:
  - Delay puberty?
  - When to begin cross-living?
  - When to begin hormones?


The New York
Are You Worth More Dead Than Alive?
By James Vlahos, P. 30
Waiting for Solar Power's Day in the Sun
By Jeff Himmelman, P. 24
Observations on a Human Train Wreck
By Sarah Hepola, P. 44
What's Wrong With A Boy Who Wears A Dress?
A new approach to parenting gender-fluid children. By Ruth Padawer

The Puberty Process



The hypothalamus releases GnRH

GnRH causes the pituitary gland to release LH and FSH

LH and FSH stimulate the sex organs to produce estrogen or testosterone

Delay of puberty

- With GnRH agonists (puberty blockers)
- Many recommend allowing natal gender Tanner stage 2/3
- Puberty blockers allow a "breathing time" for both young person and family

How do we know who is transgender?

1. **What is your current gender identity? (Check and/or circle ALL that apply)**
   - ☐ Male
   - ☐ Female
   - ☐ Transgender Male/Transman/FTM
   - ☐ Transgender Female/Transwoman/MTF
   - ☐ Genderqueer
   - ☐ Additional category (please specify) _____
   - ☐ Decline to answer

2. **What sex were you assigned at birth? (Check one)**
   - ☐ Male
   - ☐ Female
   - ☐ Decline to answer

3. **What pronouns do you prefer?**_____

Primary and Preventive Care for Transgender Patients

- "If you have an organ, you need screening!"
- All trans patients at theoretical increased risk of osteoporosis (counsel re: calcium/D)
- Screen for depression
- Weight/Diabetes/Metabolic changes

Which patients need Pap tests?

- MTF with neovagina
  - Perform bimanual, speculum and external exam, but Pap of minimal value
- FTM pap screening
  - follow published female guidelines for those who have cervix
- Anal Pap
  - Recommendations remain somewhat unclear
  - HIV positive anal-receptive patients
  - ?others

Who should have mammograms?

- Transgender men who have not had top surgery should follow mammography recommendations for cisgender women
- Transgender women who have taken crossgender hormone therapy for more than five years should begin mammography screening by the age of 50

Osteoporosis screening

- For transmen over age 60 if taking hormones for less than 5-10 years
- If taking hormones for > 5-10 years, consider screening at age 50
- Recommend supplemental calcium and Vitamin D

UCSF Transgender Health Protocol

Reproductive health counseling

- Often ignored
- Need to discuss sperm banking or egg preservation prior to initiation of cross-gender hormones
- Patients need counseling re: contraceptive options
- MTF often permanent sterility within months
- FTM off hormones MAY be able to conceive

What do providers fear in treating transpeople?

- Lawsuits
- Treating societal outcasts
- Doing something they were never taught about
- Altering nature
- Simple fear of the unknown
- Homophobia/transphobia
- Preconceptions/ignorance
- Patients having regret

"Gender Transition is not an extreme sport!"

- Risk:Benefit ratio is outstanding!
- FTM have 2000% relative reduction in suicide rate once on hormone therapy

Maddie Deutsch, MD

Making practices safe for gender nonconforming patients

- Ask the questions
- Don't assume….
- Use name that patient prefers
- Use pronouns that patient prefers
- Apologize when you make a mistake
- Non-discrimination policies should include gender identity/gender expression


this is an
ALL-GENDER
restroom
for more information, visit www.safe2pee.org

Ready to go,
when you
have to go.

Take home points

- Transgender is a broad term
- Many patients don't fit into a binary model
- Gender identity is not the same as sexual orientation
- Transgender patients are an underserved population
- Much care of transgender patients may be performed in a primary care setting
- Don't forget preventive care
- Don't add the "T" without doing the work

- We can do better …..always better
- Meliora


ARS ET
SCIENTIA
MELIORA

Save the date!

References

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