



## TRANSGENDER MEDICINE 2026 AND BEYOND

David Newman, MD

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## DISCLAIMER

- I have no conflicts of interest or financial disclosures

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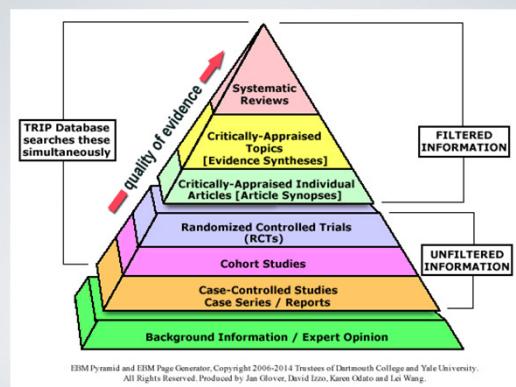
## ANOTHER DISCLAIMER

- This presentation WILL NOT discuss the ethics of transgender medicine. Regardless of your stance on the subject, you will encounter patients on hormonal therapy and need to know about the treatment, side effects, and long term health maintenance.

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**C** what are the biggest updates in gender affirming care over the past few years?

Customer mining

The most significant update in gender affirming care in recent years center on shifting from gatekeeping models to informed consent approaches and expanding access while recognizing that not all transgender individuals desire or require medical intervention.

The American College of Obstetricians and Gynecologists now endorses informed consent while allowing for individualized clinical judgment for initiating gender-affirming hormone therapy for patients who wish to medically transition. This represents a major departure from historical requirements for mandatory mental health evaluations before accessing hormone therapy. The ACOG also endorses the use of gender-affirming hormone therapy for healthcare professionals with appropriate training, and specific certification is not required. [#ACOG](#)

Clinical practice has evolved to recognize that hormone therapy and surgery are not required parts of transition and should not be mandated for legal name or gender marker changes. [#ACOG](#) Not all transgender individuals desire or require medical intervention. Some individuals choose to receive hormone treatment, even when it may be medically necessary for those who do. [#ACOG](#)

Recent evidence demonstrates that gender-affirming care—including puberty blockers, hormones, and surgery—is associated with improved mental health outcomes, including decreased depression, anxiety, and suicidality. [#ACOG](#) There is also evidence that gender-affirming care can reduce low certainty evidence that gender-affirming care may improve quality of life, stigma, healthcare utilization, and mental health, with no studies identifying significant negative outcomes. [#ACOG](#)

The ATOM framework, developed from patient narratives in 2023, provides an actionable model emphasizing affirming individual interactions, flexible and accessible care beyond urban clinics, fighting systemic oppression including gatekeeping practices, community interaction, patient retention strategies, and multidisciplinary teams with co-located services. [#ACOG](#)

Ask a follow-up question...

[Ask a question](#)

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Review

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**Provision of gender-affirming care for trans and gender-diverse adults: a systematic review of health and quality of life outcomes, values and preferences, and costs**

Erica L. Gagnon, [Ping Shen](#), [Kiran Grewal](#), [Alicia J. Jemmott](#), [Jenny Lomax](#), [Van Heflen](#), [Agnieszka J. Kowalewski](#), [Kathleen J. Kennedy](#), [Brooke Wray](#), and [Caroline A. Baskin](#)

[Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA](#)  
[Department of Health, University of Exeter, Exeter, UK](#)  
[Vigority of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Australia](#)  
[Department of Health, University of Exeter, Exeter, UK](#)  
[Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom](#)  
[Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA](#)

 OA

- 7 reported outcomes: quality of life, mental health, suicidal behaviors, utilization of health services, stigma related to gender identify, gender incongruence, perception of well being
- Generally positive effects, no studies reported substantive harms
- Moderate to very low certainty

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# OBJECTIVES

- Define **terms** related to gender dysphoria
- Identify **which patients are suitable for hormonal transition** to the opposite gender
- Describe the **typical changes** associated with hormonal therapy
- Identify **complications** of hormonal therapy

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1984 → 2012 → 2015 → 2025

50-70      100      300      1,300

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# WHY DO I CARE?

- Most recent estimate is 0.3 to 0.6 percent of the adult population is transgender

**Transgender Population Size in the United States: a Meta-Regression of Population-Based Probability Samples**

**Author(s): Michael, PhD, and Jai H. Sestan, PhD**

**Published in:** *PLoS Med* 2016;13(10):e1002441

**Published online:** 2016 May 26. doi:10.1371/journal.pmed.1002441

**Prevalence of Transgender Depends on the "Case" Definition: A Systematic Review**

**Author(s): Leslie, MPH, Saiti, BScPharm, ScD,<sup>1,2</sup> *Univ Pennsylvania*, MD, PhD,<sup>1</sup> and Michael Goodwin, MD, MPH<sup>1</sup>**

<sup>1</sup> Author information: © Copyright and License information: Disclaimer



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**SPOILER ALERT!**

- Patients can be started on gender affirming hormonal therapy after **informed consent** **OR** meeting WPATH criteria
- Main complication from estrogen is blood clots
- Hormonal therapy improves mental health outcomes and quality of life

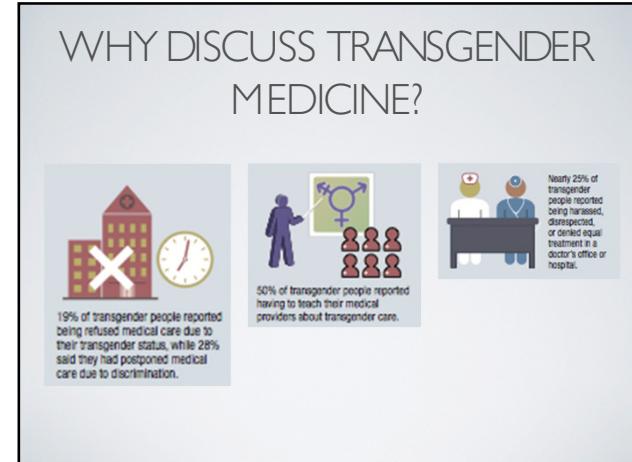
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A collage of logos and text from various medical organizations related to transgender health. It includes the WPATH logo (a blue and pink gender symbol with a downward arrow), the ACOG logo (a black and white anatomical illustration of a pregnant woman), the ACOG Committee Opinion logo (a blue and white circular design), and the Endocrine Society Clinical Guidelines logo (a blue background with white text). The text includes 'WORLD PROFESSIONAL ASSOCIATION for TRANSGENDER HEALTH', 'ACOG COMMITTEE OPINION', 'Health Care for Transgender and Gender Diverse Individuals', and 'center of excellence for TRANSGENDER health'.

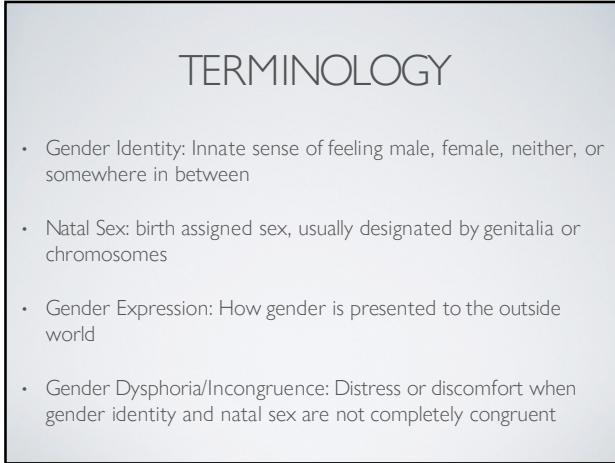
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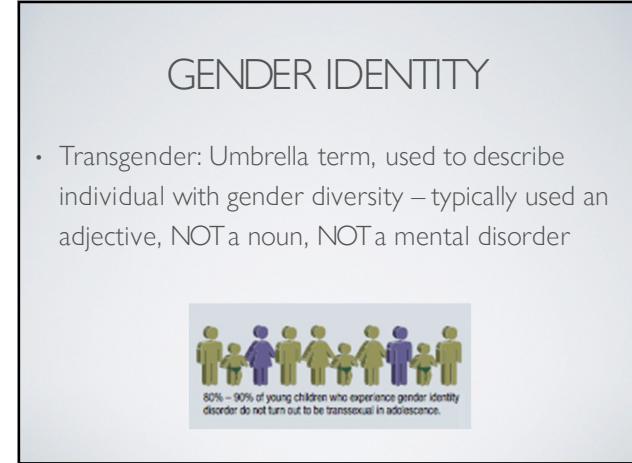
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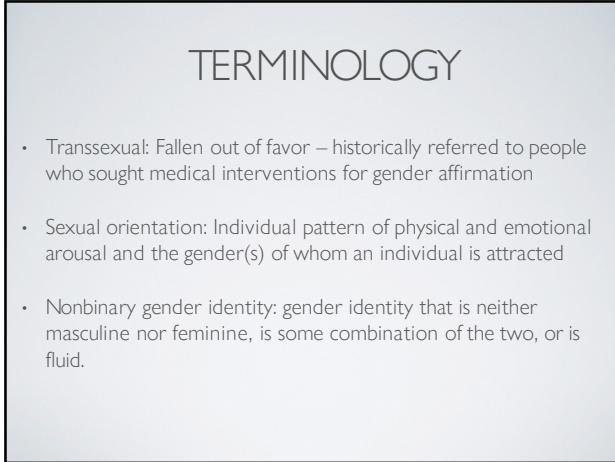
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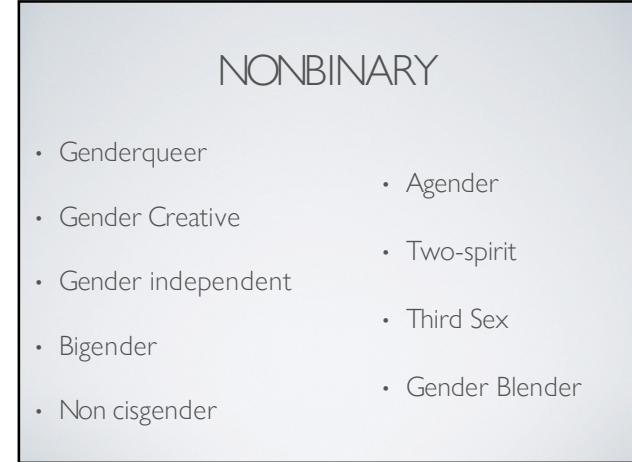
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# WHAT DO I CALL MY PATIENTS?

- Ask them
- Preferred name
- Preferred pronoun
- Update the medical record

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Sexual Orientation and Gender Identity Shared Form

Inform the patient that anything entered here will be visible to anyone with access to this legal medical record.

**Dax**  
der Flux Demimale  
identifying as female (f)

**Dax**  
(Legal Name)  
Pronouns: he/him/his, they/them/theirs

28y.  
Gender identity: Gender Flux Demimale  
(never identifying as female)  
Sex assigned at birth: Female  
Organ inventory (current): breasts, cervix,  
ovaries, uterus, vagina  
Organ inventory (birth): breasts, cervix,  
ovaries, uterus, vagina  
Marital status: Single  
Race: Caucasian/White  
Ethnicity: Not Hispanic or Latino

Contact Information

Alternate Contact Person + 1 more

Preferred language: English

MRN:  
CSN:  
HAR:

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## COMMUNITY SUPPORT



## A Little About Who We Are

For a few years now we have been meeting on third  
Saturdays of each month at the radio station.

Saturday of each month at the pride collect.  
We are a support group that can help with various levels of support. We often try to network people in finding the various support systems transgender

including the various support systems transgender people need.

Our goals are to spread awareness and support for transgender people in MN, SD, and ND. Most importantly we give a chance for people to be themselves in a safe setting.

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**Patient Instructions (F3 to enlarge)** **Go to Clinical References**

**Transgender Health Resources**

**Emergency**  
Trans Lifeline: A suicide hotline run by transgender people for transgender people  
[www.translifeline.org](http://www.translifeline.org) (877-562-3438)  
Rape and Abuse Crisis Center: Services are available to all who are affected by sexual assault, rape, sexual abuse, and child sexual abuse  
[www.raccc.org](http://www.raccc.org) (800-656-7272)

**Youth Services**  
Drop-In Center Resource Center (Ages 16-26) provides shelter, basic needs, life skills and education to the whole spectrum  
[www.transyouth.org](http://www.transyouth.org) (701-232-3301)  
The Trevor Project: 24-hour crisis line and counseling for LGBTQ youth (866-488-3836)  
[www.thetrevorproject.org](http://www.thetrevorproject.org)  
Keystone Center: A national Youth Support group (218-789-1446) or (218-303-5893)  
[www.keystonecenter.tbo.com](http://www.keystonecenter.tbo.com) (218) 303-5893

**Organizations**  
Tri State Transgender: A warm, lively, and welcoming group of transgender people and allies who meet every first Saturday at the Pride Center in Duluth, MN  
[www.tristatetrans.org](http://www.tristatetrans.org) (218-726-3024)  
The Pride Center: An inclusive and safe space for the whole spectrum  
[www.pridecenter.org](http://www.pridecenter.org) (218-726-3024)

**Information**  
Gender Spectrum: A resource for understanding the complexities of Gender  
<http://www.genderspectrum.org>  
The Gender Book: A very approachable guide to help anyone understand their own gender  
[www.genderbook.com](http://www.genderbook.com)  
Gender Maze: Comprehensive look at all things gender  
[http://www.gender-maze.com/gender-maze/gender-share/sum\\_medium-copy](http://www.gender-maze.com/gender-maze/gender-share/sum_medium-copy)  
**Contact Information**  
Transgender Liaison: For additional information or community outreach  
[www.mnstatehealth.org](http://www.mnstatehealth.org)

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## HORMONES



- Persistent, well documented gender dysphoria
- Capacity to make a well-informed choice
- Of legal age
- Medical or mental issues are well-controlled

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## STANDARD VS. INFORMED CONSENT

### Standard

- Initiation of hormonal therapy after psychosocial assessment by "qualified mental health professional"
- Psychotherapy not required
- Experienced hormone prescribing medical provider may meet requirement

### Informed Consent Model

- Hormonal therapy initiated by prescribing provider based on:
  - Clinical judgment
  - Lack of contraindications
  - Patient capacity to give informed consent
  - Informed consent

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## INFORMED CONSENT MODEL

- Requires healthcare provider to effectively communicate benefits, risks and alternatives of treatment to patient
- Requires healthcare provider to judge that the patient is able to understand and consent to the treatment
- Does NOT preclude mental health care
- Prescribing decision ultimately rests with clinical judgment of provider
- Informed consent is not equivalent to treatment on demand

(Deutsch, 2012)

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## WHEN TO REFER

- Behavioral Health: When the diagnosis is uncertain
- Endocrinology: When you are uncomfortable with treatment
  - Disorder of sexual development (DSD)
  - Clotting disorder
  - Progression has plateaued
  - Insurance barriers

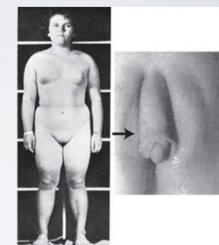
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## DISORDERS OF SEX DEVELOPMENT

- Replaces terms "intersex," "hermaphrodite," and "pseudohermaphrodite"
- DSD term sometimes not supported by patient advocacy groups
- Chromosomal, Gonadal, or anatomical

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## DSD



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# HORMONAL TREATMENT: FTM

- Testosterone
  - Intramuscular
  - Topical
  - Implantable pellets

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Androgen	Initial - low dose <sup>a</sup>	Initial - typical	Maximum - typical <sup>c</sup>	Comment
Testosterone Cypionate <sup>a</sup>	20 mg/week IM/SQ	50mg/week IM/SQ	100mg/week IM/SQ	For q 2 wk dosing, double each dose
Testosterone Enanthate <sup>a</sup>	20mg/week IM/SQ	50mg/week IM/SQ	100mg/week IM/SQ	*
Testosterone topical gel 1%	12.5-25 mg Q AM	50mg Q AM	100mg Q AM	May come in pump or packed form
Testosterone topical gel 1.62% <sup>d</sup>	20-25mg Q AM	40.5 - 60.75mg Q AM	103.25mg Q AM	*
Testosterone patch	1-2mg Q PM	4mg Q PM	8mg Q PM	Patches come in 2mg and 4mg size. For lower doses, may cut patch
Testosterone cream <sup>e</sup>	10mg	50mg	100mg	
Testosterone axillary gel 2%	30mg Q AM	60mg Q AM	90-120mg Q AM	Comes in pump only, one pump = 30mg
Testosterone Undecanoate <sup>f</sup>	N/A	750mg IM, repeat in 4 weeks, then q 10 weeks ongoing	N/A	Requires participation in manufacturer monitored program <sup>f</sup>

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# WHAT TO EXPECT: FTM

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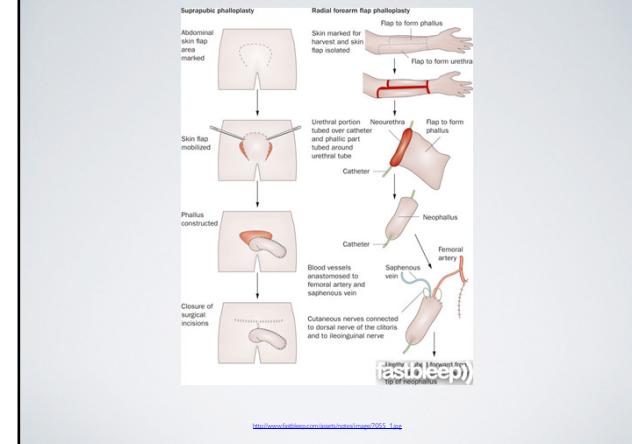
# CHAZ BONO

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## SURGICAL REASSIGNMENT: FTM

- Mastectomy (Top)
- Hysterectomy and bilateral salpingo-oophorectomy (Bottom)
- Addition of phallus (Bottom)

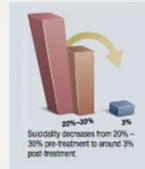
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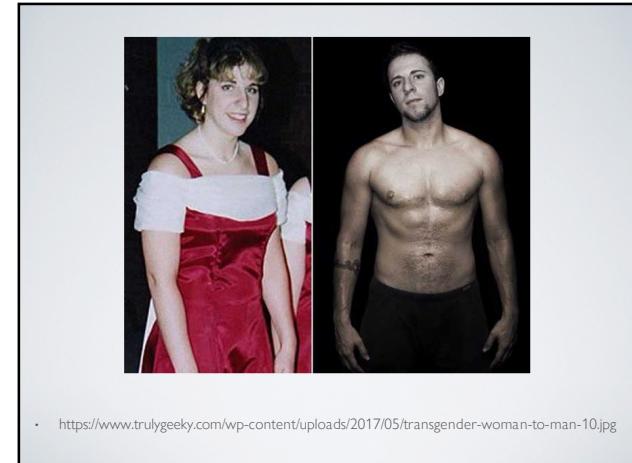
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## COMPLICATIONS: FTM

- Heart Disease: uncertain
- Breast, uterine, and ovarian cancer: uncertain, but possibly increased
- Erythrocytosis
- LFT abnormalities



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## HORMONAL TREATMENT: MTF

- Spironolactone → blocks synthesis of testosterone and androgen receptor
- Estrogen
  - Oral/sublingual – don't use ethinyl estradiol (oral contraceptive pill)
  - Patch
  - Injections
- Progesterone

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Hormone	Initial-low <sup>a</sup>	Initial	Maximum <sup>c</sup>	Comments
Estradiol oral/sublingual	1mg/day	2-4mg/day	8mg/day	if >2mg recommend divided bid dosing
Estradiol transdermal	50mcg	100mcg	100-400 mcg	Max single patch dose available is 100mcg. Frequency or change is brand/product dependent. More than 2 patches at a time may be cumbersome for patients
Estradiol valerate IM <sup>d</sup>	<20mg IM q 2 wk	20mg IM q 2 wk	40mg IM q 2wk	May divide dose into weekly injections for cyclical symptoms
Estradiol cypionate IM	<2mg q 2wk	2mg IM q 2 wk	5mg IM q 2 wk	May divide dose into weekly injections for cyclical symptoms

Hormone	Initial-low <sup>b</sup>	Initial	Maximum <sup>c</sup>
Spironolactone	25mg qd	50mg bid	200mg bid
Finasteride	1mg qd		5mg qd
Dutasteride			0.5mg qd

Hormone	Initial-low <sup>b</sup>	Initial	Maximum <sup>c</sup>
Medroxyprogesterone acetate (Provera)	2.5mg qhs		5-10mg qhs
Micronized progesterone			100-200mg qhs

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## WHAT TO EXPECT: MTF

Effect	Onset	Maximum
Redistribution of body fat	3 - 6 months	2-3 years
Decrease in muscle mass and strength	3 - 6 months	1 - 2 years
Softening of skin/decreased oiliness	3 - 6 months	unknown
Decreased libido	1 - 3 months	3 - 6 months
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	Unknown	> 3 years
Decreased terminal hair growth	6 - 12 months	> 3 years
Scalp hair	No regrowth	
Voice changes	None	

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<http://i.imgur.com/BSQad27.jpg>

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## ISIS KING



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## LEA - T



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## SURGICAL REASSIGNMENT: MTF

- Orchectomy and/or
- Vaginoplasty
- Facial feminization
- Vocal cord surgery
- Breast augmentation
- Tracheal shave
- Buttock augmentation

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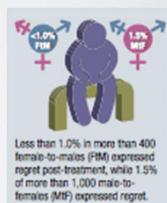
<http://genderreassignmentfiles.wordpress.com/2014/08/test-male.jpg>

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## COMPLICATIONS: MTF

- Venous thromboembolism: Increase
  - Discontinue estrogen three to four weeks before surgery
- Coronary Artery Disease
  - Familial hypertriglyceridemia
- Mortality: Increased (no adjusted data)
- Elevated prolactin
- Electrolyte issues





Less than 1.0% in more than 400 female-to-males (FM) expressed regret post-treatment, while 1.5% of more than 1,000 male-to-females (MF) expressed regret.

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<https://pinimg.com/736x/ce/0c/d8/ce0cd891e2c472ad84589ba1f7adfa3c-transgender-emf-anti-transition.jpg>

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## BEFORE AFTER

<https://ipinimg.com/564x/cf/36/f7/cf36f795bc05b7886fcf8af2cb18f36d--mtf-transition-transgender.jpg>

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# MYA TAYLOR



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## HORMONE PEARLS

- Maximum effect dose not necessarily require maximum dose
- Check with insurance prior, use term “medically necessary” in documentation
- Don’t forget syringes and education for intramuscular/subcutaneous medications
- Hormonal therapy is not great birth control

Table 3. Lower and upper limits of normal to use when interpreting selected lab tests in transgender men using masculinizing hormone therapy

Lab measure	Lower limit of normal	Upper limit of normal
Creatinine	Not defined	Male value
Hemoglobin/Hematocrit	Male value if anemic*	Male value
Alkaline Phosphatase	Not defined	Male value

Table 5. Lower and upper limits of normal to use when interpreting selected lab tests in transgender women using feminizing hormone therapy.

Lab measure	Lower Limit of normal	Upper Limit of normal
Creatinine	Not defined	Male value
Hemoglobin/Hematocrit	Female value	Male value
Alkaline Phosphatase	Not defined	Male value

\* If menstruating regularly, consider using female lower limit of

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## LAB MONITORING

- Transgender male: Testosterone in cisgender male range, estrogen levels not very useful
- Transgender female: Testosterone under 55, estrogen in cisgender female range but under 200
- Non binary: Labs based on patient centered goals

UCSF Transgender Care

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**CLOTTING**

• Increased risk with estrogen, not with testosterone

• Tobacco cessation

• Aspirin?

• NOT an absolute contraindication

• Stop estrogen for a few weeks preoperatively or before immobilization

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- Increased risk with estrogen, not with testosterone
- Tobacco cessation
- Aspirin?
- NOT an absolute contraindication
- Stop estrogen for a few weeks preoperatively or before immobilization

# HEALTH MAINTENANCE

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- Bone Density
- Prostate
- Mammograms
- HIV
- Cervical/Uterine/Ovarian Health
- Fertility

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# WHAT SHOULD I DO?

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- What would you do for any other patient of their age?
- Referral to psychology or endocrinology if you are uncomfortable
- Routine Health Maintenance
  - Refer as necessary
- Be aware of complications

# QUESTIONS?

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