

Chosen Family, Part 2: Contraception and Fertility for Transgender and Gender-Diverse People



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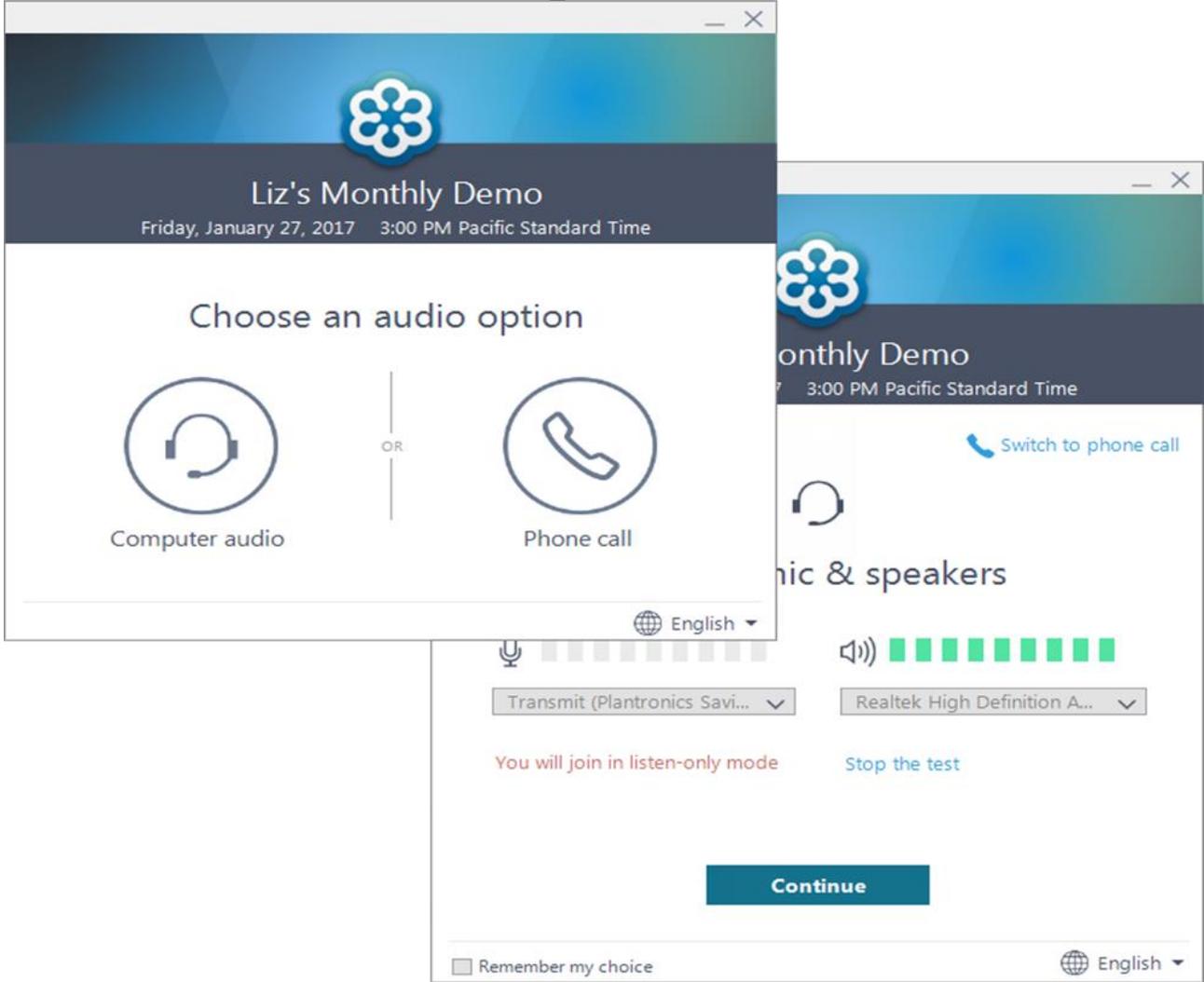
Family PACT



California PTC

May 5, 2025

GoToWebinar Housekeeping: Set Up Audio



GoToWebinar Housekeeping: What Attendees See

The screenshot displays the GoToWebinar interface. The main window, titled "Waiting to view Liz Davis's screen", shows the following content:

- Webinar Housekeeping**
- Organizer: Liz Davis | Presenter: Liz Davis**
- Audio: Use your microphone and speakers (VoIP) or call in using your telephone.**
- United States: +1 (951) 384-3421
- Access Code: 400-696-084
- Audio PIN: 19
- [List Additional Conference Call Numbers](#)

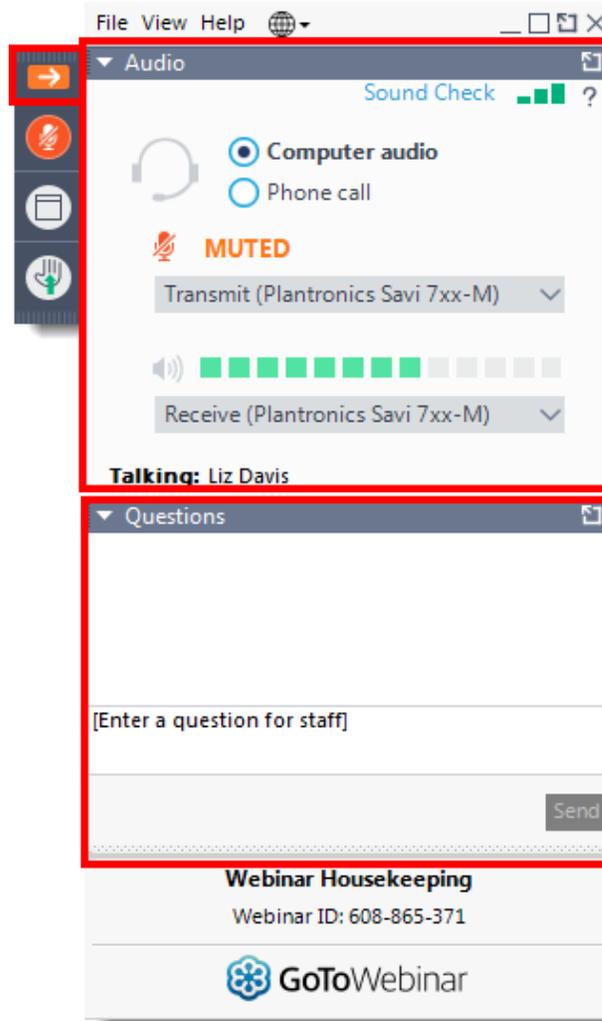
The right-hand sidebar contains the audio control panel, which includes:

- Audio settings: Computer audio (selected), Phone call.
- MUTED status.
- Transmit (Plantronics Savi 7xx-M) dropdown.
- Receive (Plantronics Savi 7xx-M) dropdown.
- Talking: Liz Davis.
- Questions section with a text input field containing "[Enter a question for staff]" and a "Send" button.
- Webinar Housekeeping Webinar ID: 608-865-371.
- GoToWebinar logo.

The Windows taskbar at the bottom shows icons for the Start menu, Internet Explorer, File Explorer, Google Chrome, and the GoToWebinar application.

GoToWebinar Housekeeping: Attendee Participation

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The screenshot displays the GoToWebinar interface with three panels highlighted by red boxes and red arrows. The top panel is the 'Audio' control panel, which includes a 'Sound Check' indicator, radio buttons for 'Computer audio' (selected) and 'Phone call', a 'MUTED' status with a microphone icon, a dropdown menu for 'Transmit (Plantronics Savi 7xx-M)', a volume level indicator, and a dropdown menu for 'Receive (Plantronics Savi 7xx-M)'. The middle panel is the 'Questions' panel, which contains a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button. The bottom panel is the 'Webinar Housekeeping' panel, which displays the webinar title 'Webinar Housekeeping', the ID 'Webinar ID: 608-865-371', and the GoToWebinar logo.

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Today's Agenda:

- » Brief terminology review
- » Impact of gender-affirming hormones on fertility
- » Impact of gender-affirming hormones on contraception
- » Case studies

Brief terminology review



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Terms:

- » Transgender
- » Gender non-binary
- » Gender-affirming care
- » Gender-affirming hormone therapy (GAHT)
- » Gender-affirming surgery
- » AMAB/AFAB

Impact of gender-affirming hormones on fertility



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GAHT impact on fertility of people AFAB

- » GAHT may negatively impact future fertility, but true effect is not known
- » Few studies on effect of testosterone on reproductive functioning of people AFAB
- » Available data is reassuring
 - No difference in oocyte retrieval between comparing trans men with/without hx of GAHT and comparing trans men and cis women

GAHT impact on fertility of people AFAB

- » Many TGNB people AFAB have carried pregnancies after long-term testosterone use
- » Testosterone is a teratogen!
 - Optimal time prior to trying to conceive is unknown
- » Limited data shows no physical or psychosocial differences in babies born to transgender men

Changes on Testosterone - Uterus

Study	Design	Patient number	Average Age in years	Average BMI in kg/m ²	Average length of time on testosterone (years)	Type and dose of testosterone received	Active Endometrium* (%)	Inactive Endometrium* (%)	Hyperplasia NO atypia (%)	Hyperplasia with atypia or cancerous lesion (%)	Other findings
Perrone Am, et al. 2009	Prospective analysis of endometrium following hysterectomy	27	31 +/- 7 (no range given)	24.8 +/- 4.3	2.8 +/- 1.8	Testoviron Depot 100 mg IM q 10 days	0	27 ¹ (100%)	0	0	5 (18.5%) polyps
Grynberg M, et al. 2010	Retrospective review of histologic data from hysterectomy specimens	112	28 +/- 0.9 (21-53)	25.4 +/- 0.2	3.7 +/- 0.6	Testosterone enanthate 250 mg IM q 4 weeks	54 (48.2%)	50 (44.6%)	8 (7.1%)	1 (0.9%) with small focus on adenocarcinoma	4 polyps (3.6%) 19 leiomyomata (17%) 5 adenomyosis (4.5%)
Loverro G, et al. 2016	Prospective analysis of endometrium following hysterectomy	12	28.1 +/- 6.3 (20-32)	Not reported	2.7 +/- 1.2	Testosterone enanthate 200-250 mg IM q 2-3 weeks	12 (100%) - 2 (16%) secretory - 10 (83%) proliferative	0	0	0	5 leiomyomata (41.7%)
Grimstad F, et al. 2018 (current study)	Retrospective review of histologic data from hysterectomy specimens	94	30 +/- 8.6 (18-53)	29.6 +/- 7.3	3.1	Varied	65 (69.1%) - 4 (4.3%) secretory - 61 (64.9%) proliferative	23 (24.5%)	1 (1.1%)	0	- Polyps - Leiomyomata - 7 adenomyosis (7.4%)

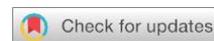
*Active endometrium defined as: proliferative or secretory endometrium

*Inactive endometrium defined as: atrophic

Grimstad et al. AJOG 2019

GYNECOLOGY

The effect of testosterone on ovulatory function in transmasculine individuals



Rebecca L. Taub, MD, MPH; Simon Adriane Ellis, CNM, ARNP; Genevieve Neal-Perry, MD, PhD; Amalia S. Magaret, PhD; Sarah W. Prager, MD, MAS; Elizabeth A. Micks, MD, MPH

TABLE 2
Hormonal profiles and ovulation data of study participants

Characteristics	All participants (N = 32)	New users (n = 7)	Continuing users (n = 25)	Pvalue ^a
Change in AMH, baseline to 12 weeks	0.0 (-2.8, 0.5)	-0.2 (2.2, 0.2)	0.0 (-2.8, 0.5)	.09.
Bleeding baseline to 4 weeks	9/30 (30%)	6/7 (86%)	3/23 (13%)	.0002
Bleeding baseline to 12 weeks ^b	12/30 (40%)	6/7 (86%)	6/23 (26%)	.0048
PdG rise in 12 weeks				
Ovulation, >5 µg x 3 days	1/22 (5%)	1/6 (17%)	0/16 (0%)	.095
Subthreshold PdG elevation, > 4 µg x 3 days	4/22 (18%)	4/6 (67%)	0/16 (0%)	.0003
Subthreshold PdG elevation, > 3 µg x 2 days	8/22 (36)	6/6 (100%)	2/16 (13%)	<.0001

Data are median (range) or count (%).

AMH, antimüllerian; PdG, pregnanediol-3-glucuronide; SHBG, sex hormone binding globulin.

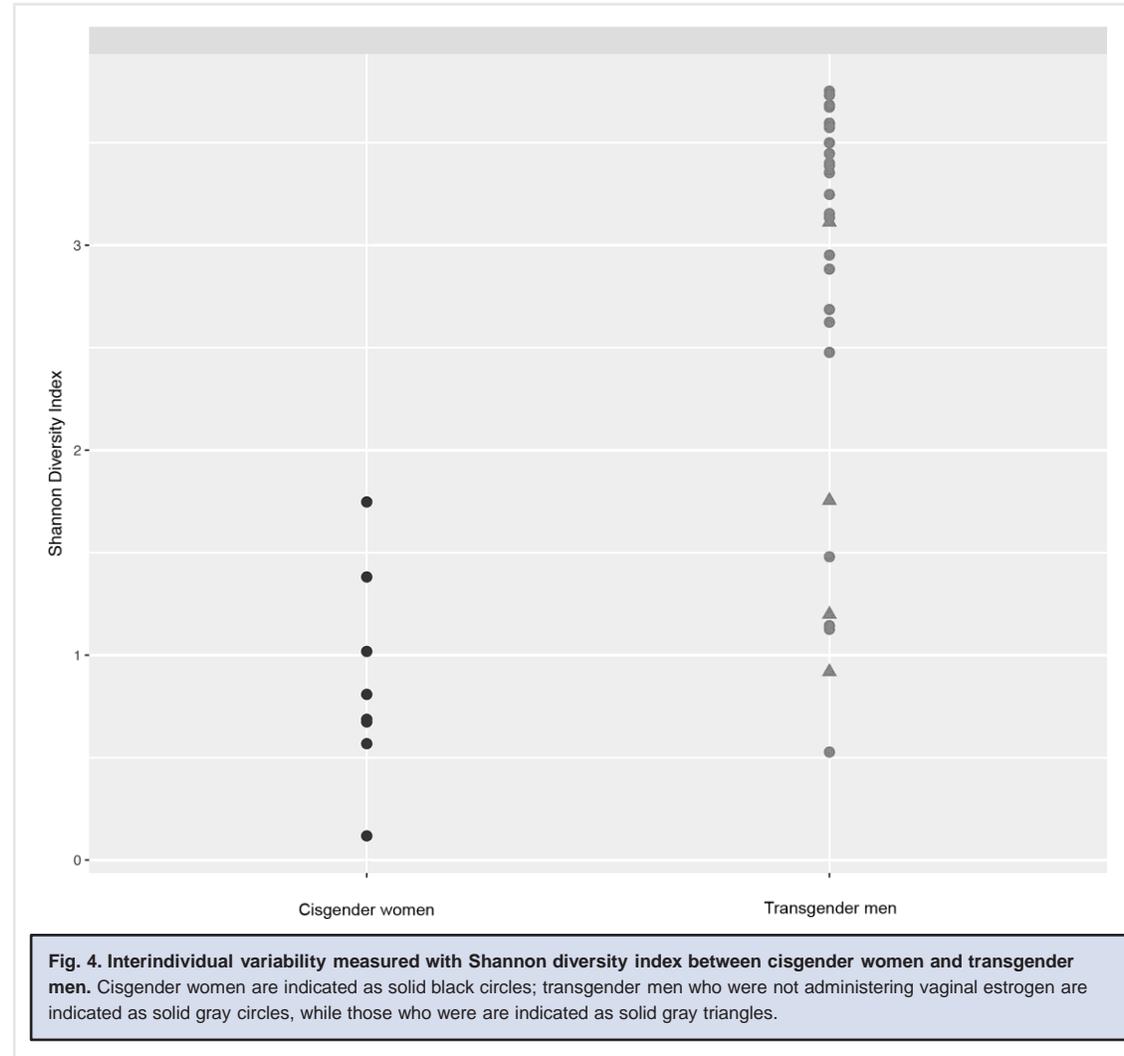
^a P value is either for *t* test or for χ^2 test comparing participants not using testosterone before the study to those using testosterone.

^b The number 30 is used for the denominator here, as the numerator includes all 9 participants who noted bleeding at 4 weeks, although we did not have full 12-week data on all of these participants.

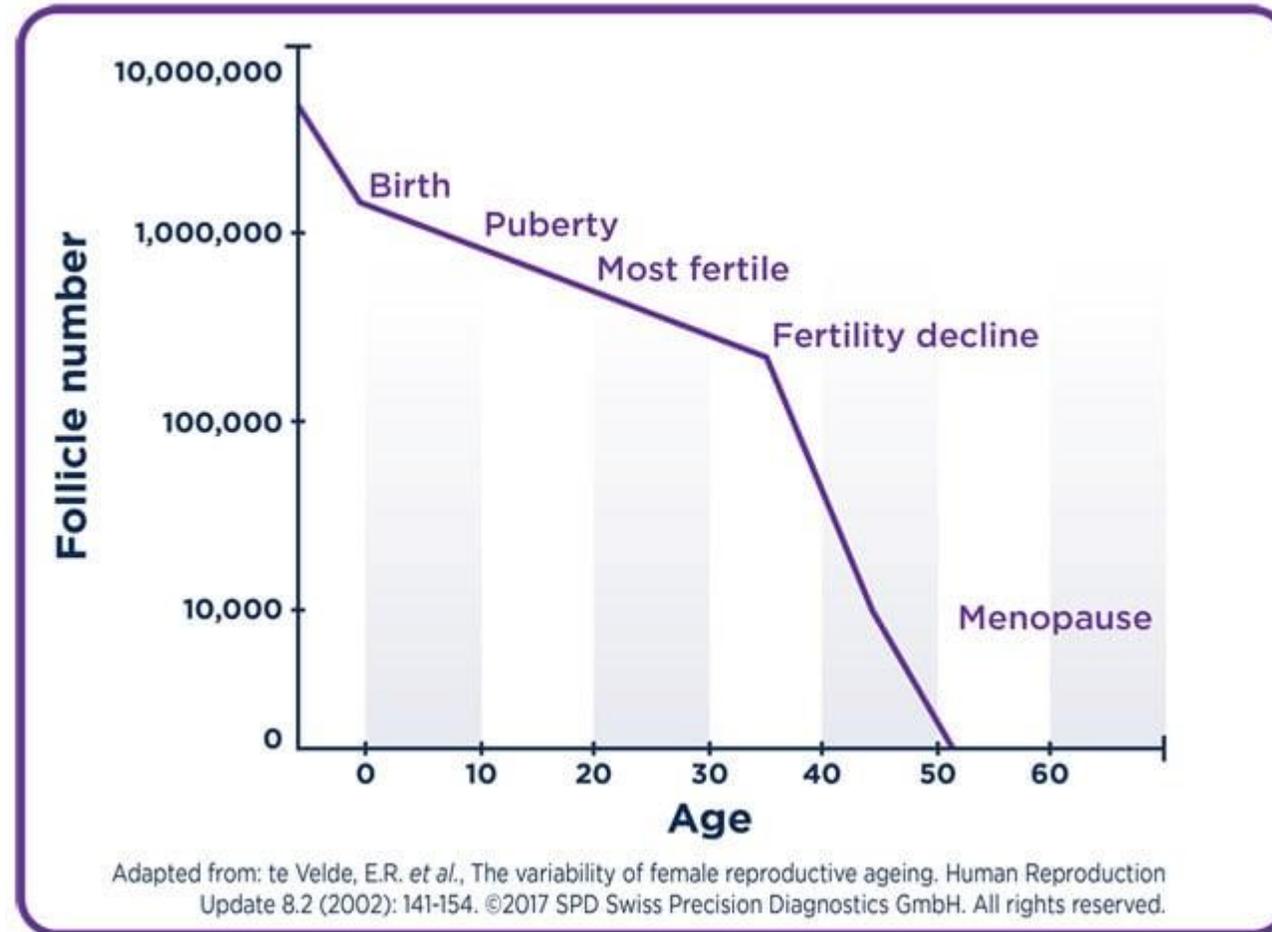
Taub et al. Testosterone and ovulation in trans men. *Am J Obstet Gynecol* 2020.

Vulvovaginal atrophy

- » Hypoestrogenic
- » Hyperandrogenic



Age (regardless of testosterone) is a significant impact on fertility



Testosterone and fertility

Journal of Assisted Reproduction and Genetics (2020) 37:2463–2472
<https://doi.org/10.1007/s10815-020-01902-7>

FERTILITY PRESERVATION



Ovarian stimulation outcomes among transgender men compared with fertile cisgender women

Hadar Amir¹ · Iris Yaish² · Nivin Samara¹ · Joseph Hasson¹ · Asnat Groutz¹ · Foad Azem¹

Received: 10 June 2020 / Accepted: 23 July 2020 / Published online: 28 July 2020
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Review > [Transgend Health](#). 2023 Oct 4;8(5):408–419. doi: 10.1089/trgh.2022.0023.
eCollection 2023 Oct.

Preservation of Fertility in Transgender Men on Long-Term Testosterone Therapy: A Systematic Review of Oocyte Retrieval Outcomes During and After Exogenous Androgen Exposure

[Jorge A Barrero](#)¹, [Ismena Mockus](#)¹

> [Am J Obstet Gynecol](#). 2023 Oct;229(4):419.e1–419.e10. doi: 10.1016/j.ajog.2023.07.013.

Epub 2023 Jul 13.

Impaired in vitro fertilization outcomes following testosterone treatment improve with washout in a mouse model of gender-affirming hormone treatment

[Amanda R Schwartz](#)¹, [Min Xu](#)², [Nicholas C Henderson](#)³, [Cynthia Dela Cruz](#)⁴, [Daniel Pfau](#)⁴, [Vasanth Padmanabhan](#)⁵, [Ariella Shikanov](#)⁴, [Molly B Moravek](#)²

Journal of Assisted Reproduction and Genetics (2019) 36:2155–2161
<https://doi.org/10.1007/s10815-019-01558-y>

ASSISTED REPRODUCTION TECHNOLOGIES



Ovarian stimulation for fertility preservation or family building in a cohort of transgender men

Amanda J. Adeleye¹ · Marcelle I. Cedars¹ · James Smith² · Evelyn Mok-Lin¹

Received: 21 April 2019 / Accepted: 6 August 2019 / Published online: 21 August 2019
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Growing body of individuals carrying a pregnancy after testosterone use

The Author(s) *BMC Pregnancy and Childbirth* 2017, 17(Suppl 2):332
DOI 10.1186/s12884-017-1491-5

BMC Pregnancy and Childbirth

RESEARCH

Open Access



From erasure to opportunity: a qualitative study of the experiences of transgender men around pregnancy and recommendations for providers

Alexis Hoffkling^{1*}, Juno Obedin-Maliver^{2,3} and Jae Sevelius⁴

Original Research

Transgender Men Who Experienced Pregnancy After Female-to-Male Gender Transitioning

Alexis D. Light, MD, MPH, Juno Obedin-Maliver, MD, MPH, Jae M. Sevelius, PhD, and Jennifer L. Kerns, MD, MPH



People AFAB

Putting this all together for those who desire fertility

- » If you want to ensure that there is no effect of testosterone on eggs → Freeze eggs before testosterone
- » It is likely that more individuals will have options to freeze while on gender affirming hormones
 - Quality and quantity differences
- » Can also likely discontinue testosterone and retrieve (or use) eggs after starting testosterone
 - Unclear how being on testosterone for many years impacts this
- » Ultimately no matter testosterone use, using eggs when you are older will have the impact of age (e.g., a person who starts testosterone at 17 who comes off testosterone at 35 years old, has 35-year-old eggs)
- » Fertility is always “unknown” until it is tried

GAHT impact on fertility of people AMAB

- » Feminizing GAHT results in an impaired sperm production but is not a guarantee of infertility
- » Spermatogenesis may resume after GAHT discontinuation
- » Semen quality in transgender women may be negatively affected by specific life-style factors

Characterisation of testicular function and spermatogenesis in transgender women

Gertjan Vereecke^{1,†}, Justine Defreyne^{2,*†}, Dorien Van Saen³, Sarah Collet², Jo Van Dorpe⁴, Guy T'Sjoen^{5,†}, and Ellen Goossens^{3,†}

MAIN RESULTS AND THE ROLE OF CHANCE: Suppressed testosterone levels (<50 ng/dl) were found in 92% of the participants prior to surgery. The mean time between initiation of HT and surgery was 685 days. In 88% (85/97) of the sections, MAGE-A4 staining was positive. Further staining could not reveal complete spermatogenesis in any participant.

LIMITATIONS, REASONS FOR CAUTION: Testicular function of the participants prior to initiation of HT was not assessed, although all participants presented with cisgender male serum testosterone values before initiation of HT. The current study only reports on people using CPA at a fixed dose and may therefore not be applicable to all TW.

WIDER IMPLICATIONS OF THE FINDINGS: HT leads to complete suppression of spermatogenesis in most TW, if serum testosterone levels within female reference ranges are obtained. Serum testosterone levels are associated with the sperm maturation rate. It is important to discuss sperm preservation before the start of hormone therapy. If serum testosterone levels remain higher, spermatogenesis may still occur.

People AMAB

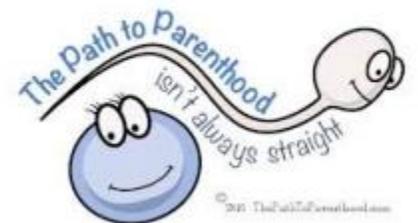
Can freeze...

- » Sperm (from testes) ...before (not as great after) starting E → sperm banking
 - Testicular tissue can also undergo sperm retrieval
 - We do TESE (here at the time of GnRH implant)

Invited Grand Rounds

Successful Ejaculatory Sperm Cryopreservation After Cessation of Long-term Estrogen Therapy in a Transgender Female

Ashley V. Alford, Katherine M. Theisen, Nicholas Kim, Joshua A. Bodie, and Joseph J. Pariser



Implications?

- » Discuss family building goals prior to starting/restarting GAHT
- » Offer fertility preservation services/referrals if desired
 - Can be prior to OR after GAHT initiation
- » Offer preconception counseling to TGNB pts seeking pregnancy
- » Refer to ART for TGNB pts presenting with infertility concerns

Barriers to fertility preservation

- » Cost, lack of insurance coverage
- » Urgency to start treatment
- » Difficulty making future-oriented decisions
- » Inadequate provider knowledge and/or bias in offering FP
- » Difficulty accessing FP
- » Worsening dysphoria from process of FP

TGNB persons can engage in all family building options



Surrogacy
Foster Adoption

Blended Families

Conception

Donor gametes

Fertility counseling must be broader than just fertility

- » Open-ended question about family building
 - Do you see yourself having a family in the future? What does it look like?
 - Do you desire to carry a pregnancy?
 - Do you desire genetically related children?

Impact of gender-affirming hormones on contraception



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GAHT & Contraception for Pts AFAB

- » Pregnancy may occur in people who are amenorrheic due to testosterone use
- » Testosterone may not completely suppress the HPA axis
- » TGD people AFAB may erroneously believe testosterone is a reliable form of contraception

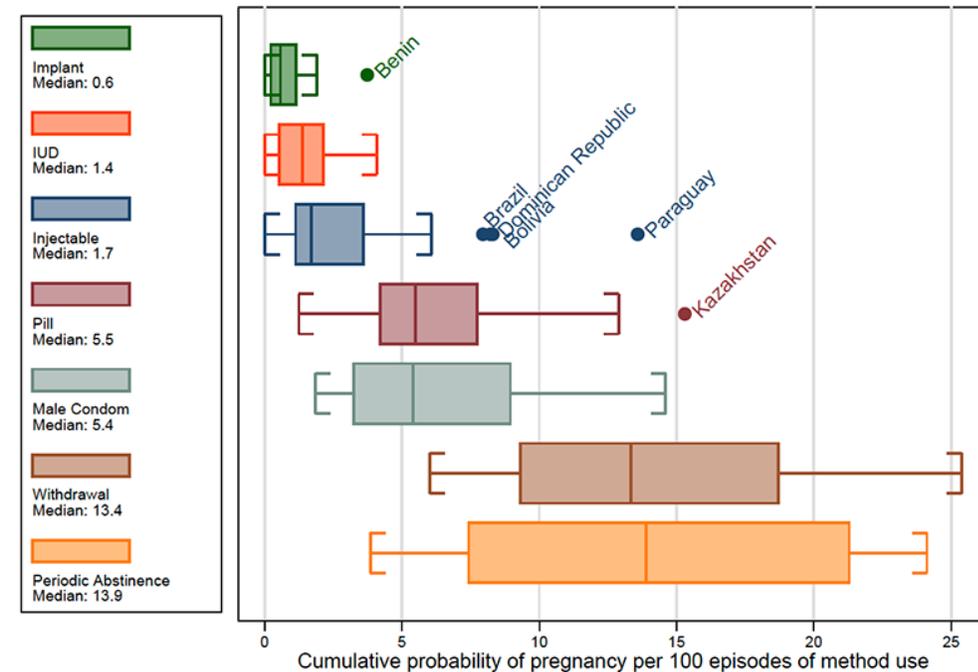
GAHT & Contraception for Pts AFAB

- » All contraceptive options are available to TGB AFAB people, regardless of current or past GAHT use
- » Selection of contraceptive method depends on individual goals and preferences, some of which may be different for TGD patients
- » No studies exist on impact of exogenous testosterone on efficacy or safety of hormonal or non-hormonal contraceptives

Could testosterone* be contraception?

- » While ovulation in pilot studies is mostly inhibited on testosterone, what about other contraceptive changes?
 - How does the failure rate change over types of testosterone?
 - How does this compare to approved forms of contraception?

FIGURE 3. Twelve-month failure rate (median) by method



Notes: Median failure rates across all countries contributing data for a given method were calculated by including estimates from countries with 125 or more unweighted episodes of contraceptive use at life table month 1. Width of box is the interquartile range (IQR); whiskers are drawn to the lowest and highest values inside the area defined by $Q1 - 1.5(IQR)$ and $Q3 + 1.5(IQR)$; outliers beyond these ranges are depicted as individual dots.

	<i>Invasive/pelvic procedure</i>	<i>Contains estrogen</i>	<i>Contains progesterone</i>	<i>Risk for spotting/bleeding</i>	<i>Reduces/eases bleeding</i>	<i>Effect on cramping</i>	<i>Chest/breast tenderness</i>	<i>Privacy/concealability</i>	<i>Requires frequent dosing</i>	<i>Clinician needed to discontinue</i>	<i>Efficacy (perfect/typical)</i>
Combined Oral Contraceptives	N	Y	Y	Low	If continuous	↓	+ at start	moderate	N	N	99/91
Progesterone Only Contraceptive Pill	N	Y	Y	Low	Y	↓		moderate	N	N	99/91
Patch	N	Y	Y	Low	If continuous	↓	+ at start	moderate	Y	N	99/91
Ring	frontal insertion	Y	Y	Low	If continuous	↓	+ at start	moderate	Y	N	99/91
Depot medroxyprogesterone acetate	N	N	Y	high	Y	↓	infrequent	very	Y	N	99/94
Implant	subdermal insertion	N	Y	high	Y	↓	possible	very	N	Y	99/99 ₂
Intrauterine Device (IDU): Copper	Y	N	N	Low	Heavier bleeding	↓	N	very	N	Y	99/99
IUD: Progesterone	Y	N	Y	high	Y	↑ At insertion, then ↓	Possible	very	N	Y	99/99
Sterilization	Requires surgery	N	N	N	N	none	N	very	N	n/a	99/99
Diaphragm	frontal insertion	N	N	N	N	none	N	moderate	N	N	94/88
Condom: Internal	frontal insertion	N	N	N	N	none	N	low	n/a	N	95/79
Condom: External	N	N	N	N	N	none	N	low	n/a	N	98/82
Emergency Contraception (EC): Ulipristal acetate₃	N	N	N	Y	N	↑, self-limiting	possible	one dose (prescription)	n/a	N	85/85 ₄
EC: Levonorgestrel	N	N	Y	Y	N	↑, self-limiting	possible	one dose (prescription)	n/a	N	75/89 ₅

(Krempasky et al., 2020)

	<i>Invasive/pelvic procedure</i>	<i>Contains estrogen</i>	<i>Contains progesterone</i>	<i>Risk for spotting/bleeding</i>	<i>Reduces/eases bleeding</i>	<i>Effect on cramping</i>	<i>Chest/breast tenderness</i>	<i>Privacy/concealability</i>	<i>Requires frequent dosing</i>	<i>Clinician needed to discontinue</i>	<i>Efficacy (perfect/typical)</i>
Combined Oral Contraceptives	N	Y	Y	Low	If continuous	↓	+ at start	moderate	N	N	99/91

GAHT & Contraception for Pts AMAB

- » Feminizing GAHT may not completely suppress sperm production and activity
- » Contraceptive options for sperm-producing partners incl:
 - Condoms (internal or external)
 - Vasectomy
 - Orchiectomy

GAHT & Contraception for Pts AMAB

- » Feminizing GAHT may not completely suppress sperm production and activity
- » Contraceptive options for sperm-producing partners include:
 - Condoms (internal or external)
 - Vasectomy
 - Orchiectomy

Case Studies



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Bonnie, age 18

- » Gender nonbinary, they/them, AMAB, planning to start feminizing GAHT as soon as possible
- » Presents with parents who are supportive of their GAHT start but are concerned about their future fertility
- » Bonnie is undecided about their future family building desires

Bonnie, age 18

- » How would we counsel Bonnie and their family about the impact of GAHT on their future fertility?
- » What options are available to Bonnie for fertility preservation?

Chad, age 38

- » Transgender man, he/him, AFAB, presents to discuss PrEP start, sexually active with cis and trans men, has receptive vaginal and anal sex, inconsistent condom use
- » Amenorrheic secondary to testosterone use, not using contraception, does not want to become pregnant ever
- » Has always been told by his HCPs he doesn't need contraception because he is taking testosterone

Chad, age 38

- » How would we counsel Chad about his risk for pregnancy?
- » What contraceptive options are available for people currently using testosterone GAHT?

Evan, age 22

- » Gender fluid, they/them, AFAB, not currently using GAHT
- » Presents with concerns about heavy menses which worsen their gender dysphoria
- » Doesn't want most changes associated with testosterone use but would be "willing to try it" if that's the only way they can stop getting periods
- » Not sexually active with people who make sperm

Evan, age 22

- » How would we counsel Evan regarding their options for methods to achieve amenorrhea without the use of testosterone?

Krista, age 40

- » Trans woman, she/her, AMAB, has been using estradiol and spironolactone GAHT for five years
- » Presents with new trans male partner for STI screening prior to becoming sexually active with each other
- » She has not had a vasectomy or any gender-affirming surgeries

Krista, age 40

- » How would we find out if Krista and her partner require contraception for pregnancy prevention?
- » What contraceptive options are available to Krista?

Ben, age 48

- » Trans man, he/him, AFAB, has been using testosterone GAHT for 10 years, has been amenorrheic since a few months after starting GAHT
- » Presenting today with questions regarding HIV PEP
- » He is sexually active with cis men and has vaginal receptive sex. He usually uses condoms but had a condomless encounter last night.

Ben, age 48

- » How would we counsel Ben regarding use of emergency contraception?
- » What emergency contraceptive options are options for Ben?
- » In absence of cessation of menses, at what age do we consider a person to be post-menopausal?

References

- » Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L., Deutsch, M. B., ... & Arcelus, J. (2022). Standards of care for the health of transgender and gender diverse people, version 8. *International journal of transgender health, 23*(sup1), S1-S259.
- » Krempasky, C., Harris, M., Abern, L., & Grimstad, F. (2020). Contraception across the transmasculine spectrum. *American journal of obstetrics and gynecology, 222*(2), 134-143.
- » Remaining references, full article cited in slide.

Questions?

