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With assistance from the weiner dog horde

Transmasculine Genital Surgery In the 21st Century

This presentation is publicly available for the benefit of the community. Pictures of genitals have been removed from this public version

Please share or quote only with credit. I can give a much more thorough presentation in person. Book me to come to your school, healthcare organization, social service provider, etc. I have equivalently detailed presentations on FFS, Vaginoplasty, Top Surgery, and Hysterectomy.

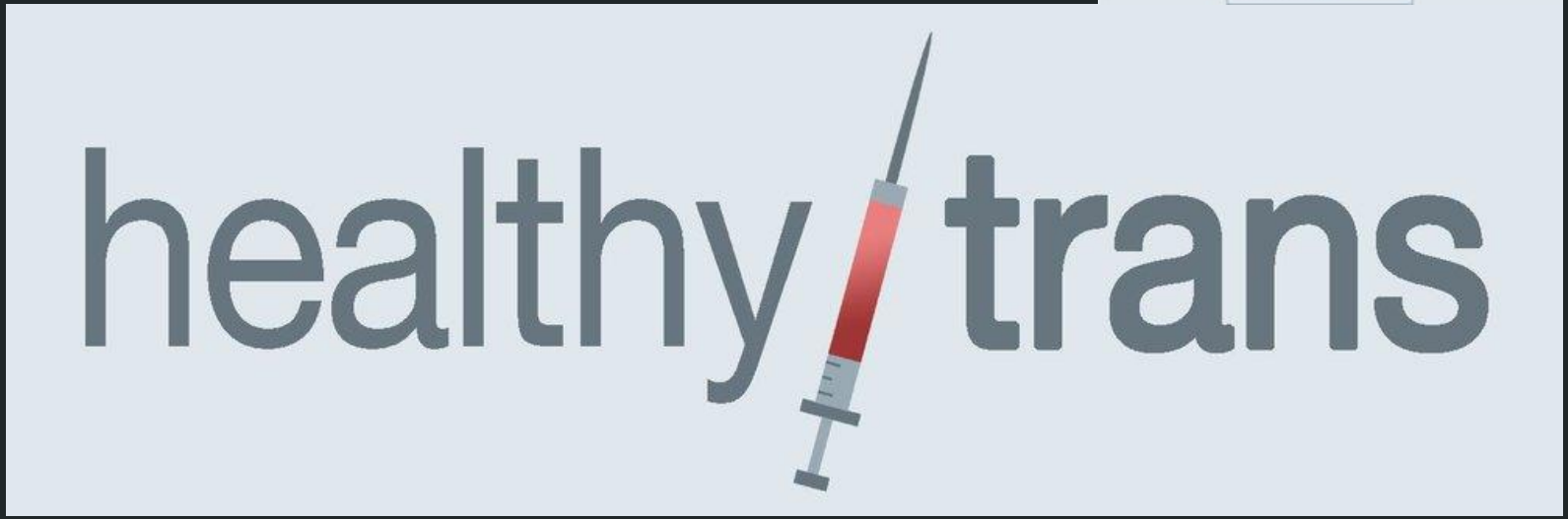
www.healthytrans.com

Gaines Blasdel, Medical Case Manager
He/Him/His

“a welcoming, non-judgmental, confidential program designed specifically to meet the medical and mental health needs of lesbian, gay, bisexual, transgender, and questioning adolescents and young adults ages 13-24.”

CALLEN-LORDE

www.healthytrans.com



Agenda

Intro

- ★ Ground Rules
- ★ Myths, facts, finding pictures
- ★ Online communities and resources

Procedures

- ★ Anatomy, Hysterectomy
- ★ Metoidioplasty and associated procedures
- ★ Phalloplasty and associated procedures

Complications

Outcome Data

Pictures

Ground rules

- **THIS WORKSHOP IS NOT ABLE TO PROVIDE MEDICAL ADVICE**
  Talk to a board certified surgeon for individualized medical advice

- **THESE ARE REAL PEOPLE**
  Pictures show people who are being vulnerable in order to share their experience with you.

- **DO NOT ASSUME**
  Sexual practices, gender identity, sexuality or other identities based on someone's body or surgical priorities

- **EVERYONE'S SURGERY EXPERIENCE IS VALID**
  People experience a range of authentic emotions (pride, shame, ambivalence, elation, regret) about their own surgical experience

MYTHS and Facts

“You can’t feel it”

“It’s not perfected yet”

“I want to keep my front hole”

“You can’t get hard”

“It’s too expensive”

MYTHS and Facts

“You can’t feel it” ***false, even if nerve hook-up is not performed***

“It’s not perfected yet” ***nothing in medicine is perfected***

“I want to keep my front hole” ***totally possible!***

“You can’t get hard” ***metoidioplasty has spontaneous erections, phallo has erectile devices***

“It’s too expensive” ***insurance coverage***

Bottom surgery timeline

1906: intersex man Karl M Baer gets multiple surgeries (unknown procedures, records burned by the Nazis)
1917: Dr. Alan L Hart graduates from OHSU medical school, gets a hysterectomy, transitions
1946: While in medical school in UK, Dr. Michael Dillon begins abdominal phalloplasty with Sir Harold Gillies
1973: First reports of Metoidioplasty (Durfee, R., and Rowland, W., US)
1983: First RFF phalloplasties performed (Davies, UK and Chang, China)
1986: Using vaginal mucosa for urethral reconstruction (Mayer, Germany)
1993: First “V-Y” Hanging Scrotoplasty (Belgium)
1999: MLD Phalloplasty (Perovic, Serbia)
2003: ALT Phalloplasty (Felici, Italy)
2006: SCIP phalloplasty (Koshima, Japan)
2008: Combined (ALT + RFF) phalloplasty are performed (van der Sluis, Netherlands)
2017: Experiments with stem cells for donor sites and lab-grown cells in urethral lengthening (US, Sweden)

On Pictures

- ALL PICTURES ARE REAL PEOPLE'S BODIES. Respect that they are vulnerable for your benefit.
- People are less excited about having gotten surgery successfully done years after they are finished, and less motivated to take the time to share their fully healed results.
- I've chosen to include only significantly post op pictures, and no diagrams showing the process of surgery. The Amsterdam Gender Center's website has excellent surgical diagrams.
- Information has been shared on generations of internet technology: listserves, message boards, independent websites, facebook, etc
- Surgeons working in academic medical programs have less ability to share results online

Online Communities and Resources

- Trans Media Network (great information but featured surgeons are **paying advertisers**)
  - phallo.net/
  - metoidioplasty.net/
- Facebook Groups
  - FTM Bottom Surgery Discussion
  - FTM Hysterectomy
- Yahoo Groups
  - FTM Phalloplasty Info
  - FTM Metoidioplasty
  - The Deciding Line
- Mega resource of phallo and meta related blogs: https://myphalloplasty.wordpress.com/2018/01/01/phallo-finder/
- Transbucket.com
- Gaines' journal article repository: goo.gl/xVNO2C
- Print Resources: Hung Jury from Transgress Press
- http://www.gendersurgeryamsterdam.com for surgical diagrams

How to ask questions

“Sensation is very important to me, can you tell me more about the sensation I can expect?”
(open ended, doesn’t assume what you’ve heard is true)

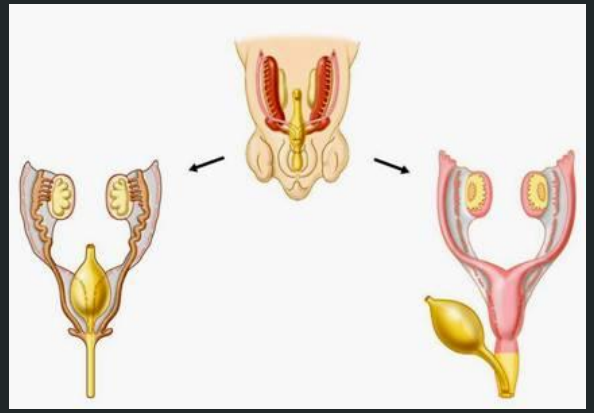
“I’ve looked _____ and haven’t found pictures that show your procedures. I would greatly appreciate it if I could see pictures of your results”
(shows you’ve done some research, doesn’t assume person will send pics)

“I’m worried about donor sites…. I scar badly and scars bother me. Are there any procedures that don’t leave a large area scarred?”
(Doesn’t imply other bodies are disfigured)

Procedures

Anatomy

Homologous Tissue



- Gonads
  ovum, testes
- Erectile Tissue
  clitoris, penis
- Glans
  exposed clitoris, head of penis
- Lubrication
  Bartholin's glands, Cowper's glands
- Ejaculation and G-spot/P-spot sensation
  Skene's glands and Prostate glands

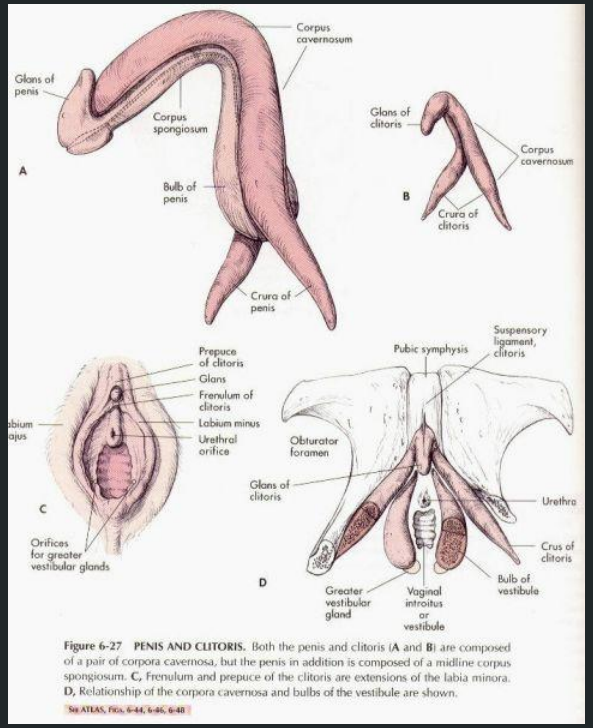


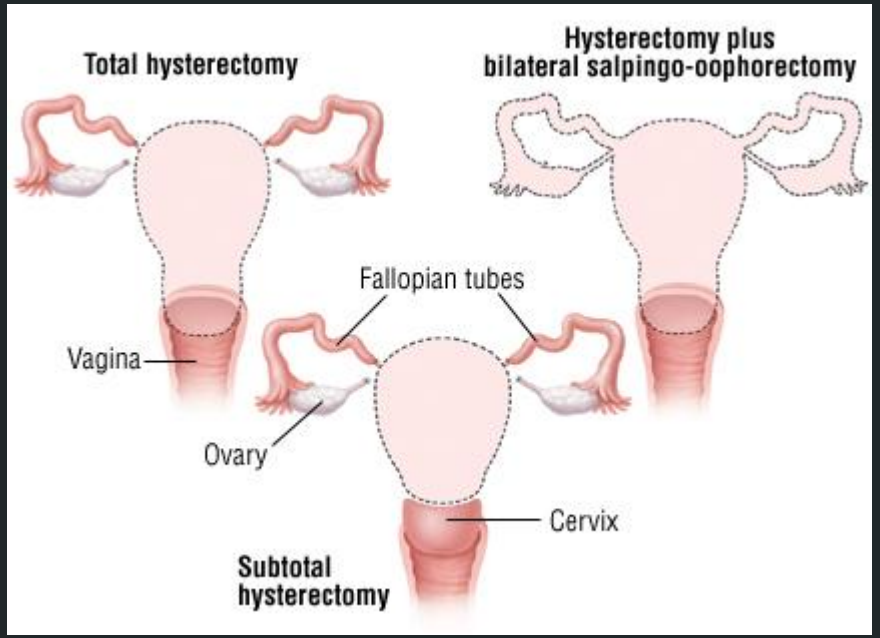
Figure 6-27 PENIS AND CLITORIS. Both the penis and clitoris (**A** and **B**) are composed of a pair of corpora cavernosa, but the penis in addition is composed of a midline corpus spongiosum. **C,** Frenulum and prepuce of the clitoris are extensions of the labia minora. **D,** Relationship of the corpora cavernosa and bulbs of the vestibule are shown.

See ATLAS, Figs. 6-44, 6-46, 6-48

Hysterectomy *“hysto” “TLH/TVH/TAH” “bilateral salpingo- oophorectomy”*

- ★ Total hysterectomy is the removal of uterus and cervix
  - If you do not have a cervix, you no longer need Pap smears
  - “Bilateral salpingo-oopherctomy” means both gonads (ovaries) and fallopian tubes are removed

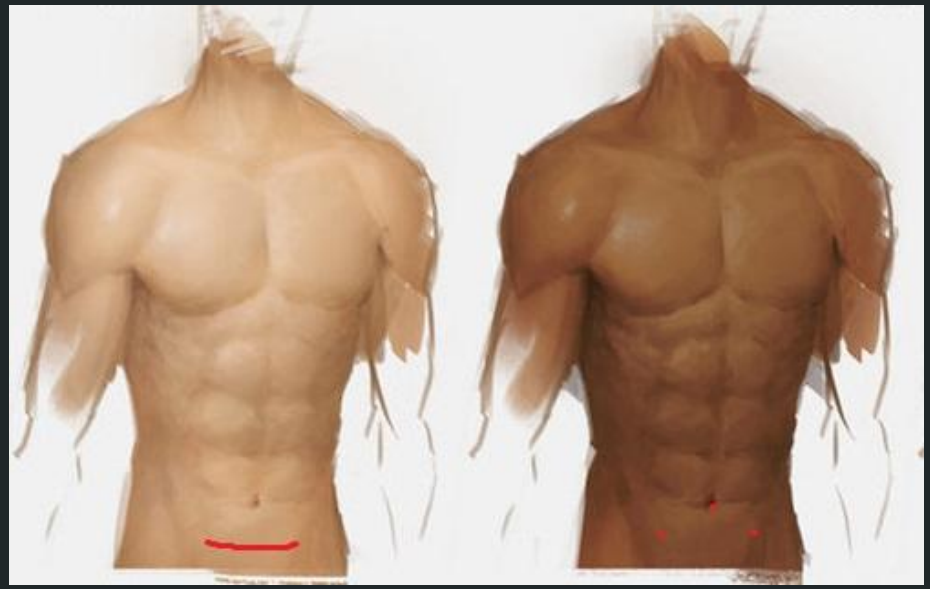
- ★ Removal of vagina (*vaginectomy*) is NOT required for this surgery or other parts of bottom surgery. However, if you are getting v-nectomy, this surgery is usually happens first or at the same time



Cramping/pain that interferes with your life (sleep, work, etc) is not normal and should be evaluated by a medical provider!!!

Techniques

- The procedure may be performed abdominally with an incision through the lower stomach, laparoscopically with the aid of robots and cameras, or vaginally with no external cuts.
- Generally, the long incision all the way through the abdominal walls makes recovery harder
- Not all bodies and problems leading to hysterectomy are eligible for a laparoscopic procedure.



Transverse incision (abdominal)

Laparoscopic incisions

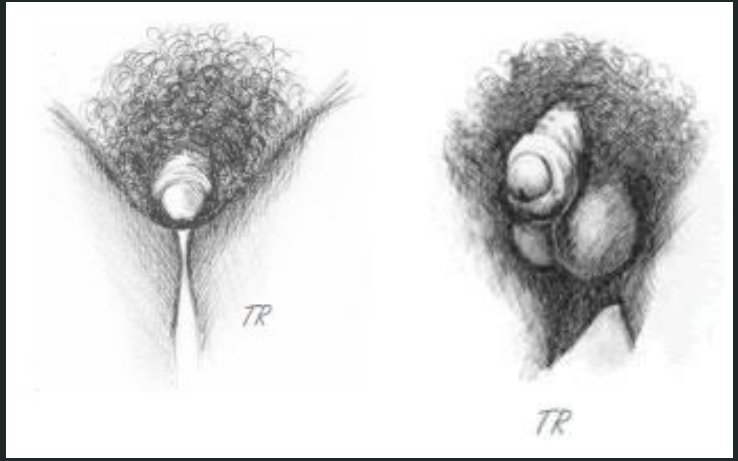
Fertility

- ★ Unless reproductive material has been stored in advance, removing ovaries and uterus means no more reproductive material
- ★ Even if ovaries are left, gathering material later is harder (more expensive?) after hysterectomy
- ★ Talk to reproductive endocrinologist or OB/GYN about your reproductive plan as part of surgery planning

Metoidioplasty

Metoidioplasty

- Metoidioplasty frees the existing erectile tissue (hormone grown, takes 2 or more years for max growth) by cutting the tissue that holds it down against the body
- The penis might be enhanced by using nearby tissues (labia, etc) to create more **girth** in “ring” and “centurion” methods, but generally length is dependent on growth from testosterone. Can also loose length post op.
- With urethral lengthening, standing to pee “clearing the fly” is not guaranteed



On “Ring” and “Centurion”:

As far as I can tell this is simply branding. The use of labia minora in “ring” and ligaments in “centurion” to add girth is not unique to the surgeons using these names for their metoidioplasty

Associated Procedures

Urethral Lengthening: Extension of the urethra so that you can urinate through the new penis. This is usually performed by a surgeon who specializes in **reconstructive urology**, and uses tissue from the mouth or vagina.

Scrotoplasty: Creation of a scrotum using existing labia. In “bifid” method, the scrotum is not joined, while other methods (“V-Y,” etc) creates a joined, hanging scrotum.

Mons Resection/Monsplasty: Lifting and/or reducing of the pubic area so that the new penis is higher on the body and more visible.

Testicular Implants: These are made of silicone and/or saline and can be inserted during “bifid” scrotoplasty or after a “V-Y” scrotoplasty is healed.

Metoidioplasty Pictures

These results are “above average” in size and not achievable for everybody..

Dr. Curtis Crane

Standing to pee

Dr. Mang Chen

Table 1. Demographics and Outcomes in Included Studies Examining Metoidioplasty for Female-to-male Transgender Genital Reconstruction

	n	F/U (y)	Single Stage (%)	Aesthetic Satisfaction (%)	Erogenous Sensation (%)	Tactile Sensation (%)	Stricture/ Fistulas per Patient	Standing Micturition (%)	Overall Complications per Patient	Donor-site Complication Rate (%)	Sexual Intercourse (%)
Perovic et al[13]	22	3.9	22.7	77.3	NR	NR	0.23	NR	0.23	0.0	NR
Hage and van Turnhout[17]	70	8.0	17.1	NR	NR	NR	0.73	NR	1.37	17.1	NR
Djordjevic et al[20]	82	2.67	8.5	100.0	100.0	NR	0.11	100.0	0.39	0.0	NR
Takamatsu et al[16]	43	NR	11.6	NR	100.0	NR	0.49	67.4	0.35	12.0	2.3
Vukadinovic et al[14]	97	2.5	12.4	83.5	100.0	NR	0.08	100.0	0.26	0.0	79.4
Cohanzad et al[19]	10	5.7	0.0	NR	100.0	NR	0.00	NR	0.0	10.0	70.0
Average	54	4.6	12.1	86.9	100.0	NR	0.27	89.1	0.43	6.5	0.51

F/U, follow-up; NR, not recorded.

"A systematic review of metoidioplasty and RFF Phalloplasty..." Hazen et all, 2016

If you really want to get nerdy about it, go look at the studies being compared to each other in this meta analysis. (in journal article repository link, slide 10)

Questions get asked slightly differently by the original authors of the different studies.

I'm always fascinated by how cisgender surgeons ask questions about sexual health and pleasure. We need more TGNB led research in this area!

Table 1: Patients' satisfaction with metoidioplasty results.

Parameters	Number of patients (%)
Satisfaction with appearance of genitalia	
Completely satisfied	81 (83.50%)
Partially satisfied	12 (12.37%)
Dissatisfied	4 (4.13%)
Voiding while standing	
Completely satisfied	97 (100%)
Partially satisfied	
Dissatisfied	
Quality of erection	
Completely satisfied	91 (93.81%)
Partially satisfied	6 (6.19%)
Dissatisfied	
Erogenous sensation of the neophallus	
Completely satisfied	97 (100%)
Partially satisfied	
Dissatisfied	
Sexual arousal	
(Very) often	97 (100%)
Never—sometimes	
Frequency masturbation	
(Very) often	83 (85.57%)
Never—sometimes	14 (14.43%)
Orgasm during masturbation	
(Almost) always	68 (70.10%)
Never—sometimes	29 (29.90%)
Sexual intercourse with partner	
With penetration	
Without penetration	20 (100%)
Overall sexual satisfaction	
Satisfied	85 (87.63%)
Neutral	7 (7.22%)
Unsatisfied	5 (5.15%)

"The role of..." Vukadinovic, 2014

Phalloplasty

Phalloplasty

- Uses non-genital skin grafts from the body to create a new penis. Common sites used are forearm, thigh, abdomen, and latissimus dorsi (back) area.
- Size is dependent on patient preference, donor site availability, and surgeon comfort. Some surgeons do not want to go under a certain size, some do not want to go over a certain size.
  - Size depends on underlying nerve and blood vessel availability, not just skin measurements
  - Must pass Allen test for forearm
- Does not grow/shrink the same way a male assigned at birth penis does, always the same size in your pants
- Existing erectile tissue can be buried under the new penis, or left exposed. You can still do nerve connection for genital feeling in new penis even if natal erectile tissue is not buried.

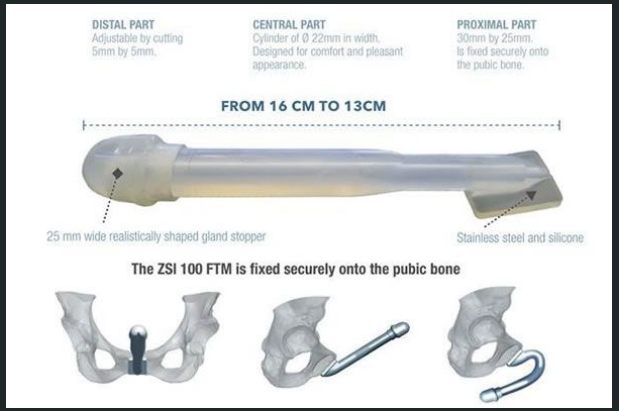
Procedures associated with phalloplasty

Microsurgery: Specialized plastic surgeons can use microsurgery during phalloplasty to connect blood supply and sensory nerves from the donor site (forearm RFF or thigh ALT) to blood supply and sensory nerves in existing genitals. If this is successful, the full erotic sensation in the genitals will extend through the length of the new penis. Regardless, if the existing erectile tissue is contained within the new penis, it provides erotic sensation at the base.

Medical Tattooing: Tattooing shading and veins onto the penis

Glansplasty: A procedure to make the glans of the new penis appear as it does in circumcised penis

Erectile Device: Can be added after a phalloplasty is healed. Allows for erections and penetrative sex without external aids. There are two common kinds of erectile devices, the semi-rigid and inflatable.



SENSATION: A Vague Term

- Pain, pressure, vibration, light surface touch, sense of self in space, hot/cold
  - If microsurgery is successful (⅞ chance according to Dr. Chen?) these elements come in slowly over time, in roughly the order above, as nerves mature and connect
  - Begins: 3-9 months
  - Reaches fullest development: 2-5 years
  - Your brain also needs to learn to make sense of where these inputs are coming from and what they mean. That takes time and effort!

- Ask what nerve your surgeon is hooking up- not everyone is connecting to the nerves that feed directly into your existing erectile tissue (*dorsal pudendal nerve*)

- Regardless of success of nerve connection, burying original erectile tissue in new penis provides erotic sensation at the base. The skin is removed from the original erectile tissue, dulling sensation somewhat. Some say this is a good thing and feels like a fleshlight made of.... Flesh!

Staging and urethral lengthening

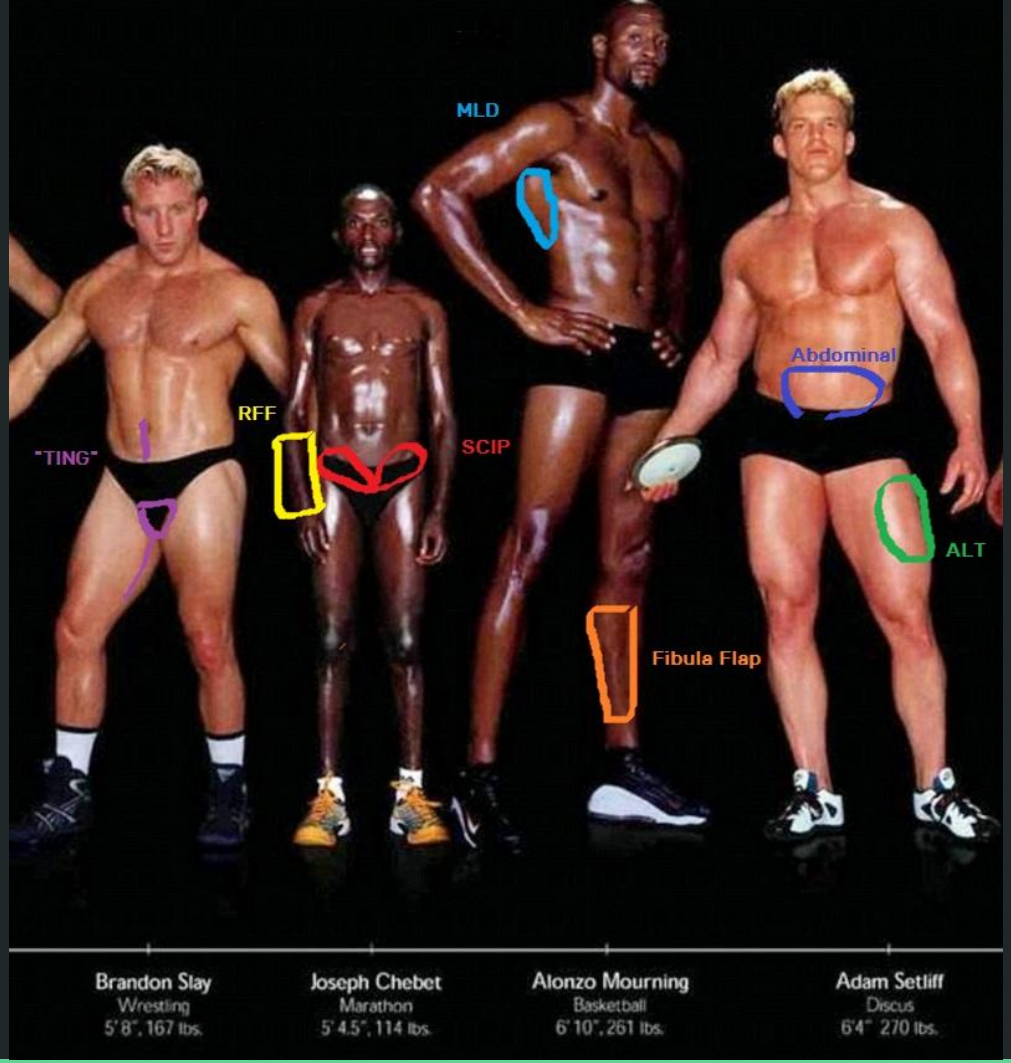
- Implants (testicular or erectile device) cannot be done at the same time as first surgery
- Urethra juncture can be built with vaginal mucosa or buccal muccosa (mouth tissue) or other local materials. Part of urethra in the shaft is often made with forearm, hip, or thigh skin.
- With UL, most surgeons prefer to lengthen urethra from bottom of the body to the front of the body (stage 1 or metoidioplasty) and then create phalloplasty penis with urethra inside (stage 2) and connect them (stage 2 or 3) and then do implants (3 or 4)
- If urethra fails, it can be completely rebuilt

Donor Sites

No nerve hookup:
Abdominal (stomach)
SCIP Flap (hips) (“Kim” phallo, “Maercks” phallo)
Ting Phallo (labia)

Nerve Hookup:
MLD (back, Motor nerve only)
Fibula and peroneal (lower leg)

Most Commonly Performed:
RFF (forearm)
ALT (thigh)


MLD
Abdominal
RFF
"TING"
SCIP
ALT
Fibula Flap
Brandon Slay
Wrestling
5'8", 167 lbs.
Joseph Chebet
Marathon
5'4.5", 114 lbs.
Alonzo Mourning
Basketball
6'10", 261 lbs.
Adam Setliff
Discus
6'4" 270 lbs.

RFF vs. ALT

- ★ Two Nerve hook-up*
- ★ Fewer stages with UL
- ★ Thinner
- ★ Arm Scar

- ★ One Nerve hook-up*
- ★ Usually more stages with UL
- ★ Thicker (body fat cut off?)
- ★ Scar hidden wearing shorts

Staging?.....

*In RFF, one is hooked up to the erectile tissue nerve (*dorsal pudendal*) and one is hooked up to groin nerve (*ilioinguinal*). In ALT the one nerve is hooked up to the erectile tissue (*dorsal pudendal*) nerve.

Table 3. Phalloplasty Overview

Characteristic	RFFFP	ALT	Fibula	MLD	SCIP	Peroneal Art Perf
Shaft	Yes	Yes	Yes	Yes	No	Yes
Sensation	Good	Some	Some	None	None	Some
Sensory nerves, No.	2	1	1	0	0	1
Bulk	Moderate	Bulky	Moderate	Bulky	Moderate	Moderate
Pedicled option	No	Yes	No	No	Yes	No
Reliability	Good	Acceptable	Good	Good	Acceptable	NA
Urethra stages, No.	1	2-3[a]	1	2-3	1[a]	1

Abbreviations: ALT, anterolateral thigh flap; Art Perf, arterial perforator; MLD, muscle sparing lattisimus dorsi; NA, not applicable; RFFFP, radial forearm free flap phalloplasty; SCIP, superficial circumflex iliac perforator.

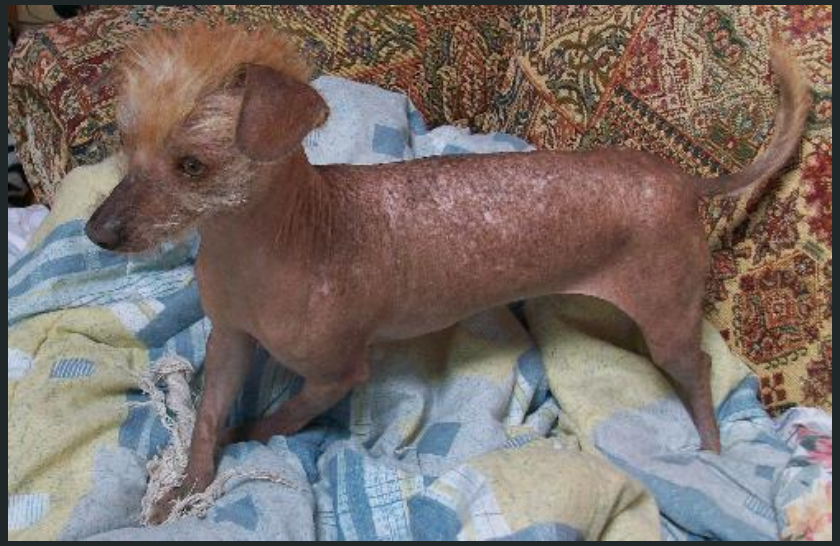
[a] Unless ALT is performed concomitantly with SCIP flap for urethral reconstruction.

"What Surgeons Need to Know About Gender Confirmation Surgery When Providing Care for Transgender Individuals" Berli et all 2017

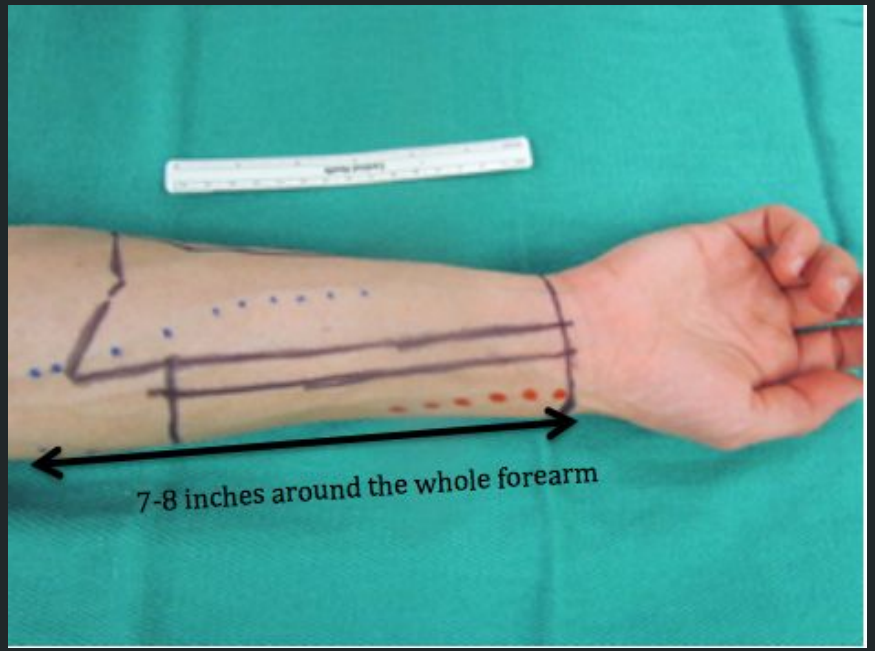
Dr Berli now utilizes more stages for urethral lengthening in RFF

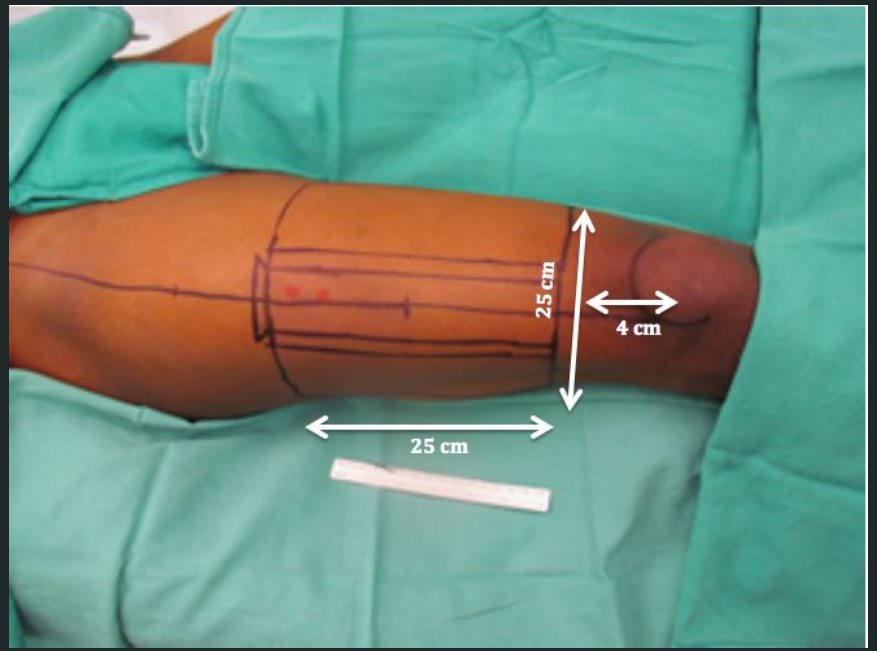
Hair Removal

- ★ Any hair (and tattoos...) on donor site will be hair on/in new penis or new vagina.
- ★ Hair removal can take as long as TWO YEARS. MINIMUM of one year should be allotted.
- ★ Laser can be effective, especially to start with, especially for people who have hair that is darker than their skin, eventually move to electrolysis for final clearance
- ★ Hair in vaginas and neo urethra is associated with infection, discharge, and occasionally severe complications (necrosis of entire urethra)



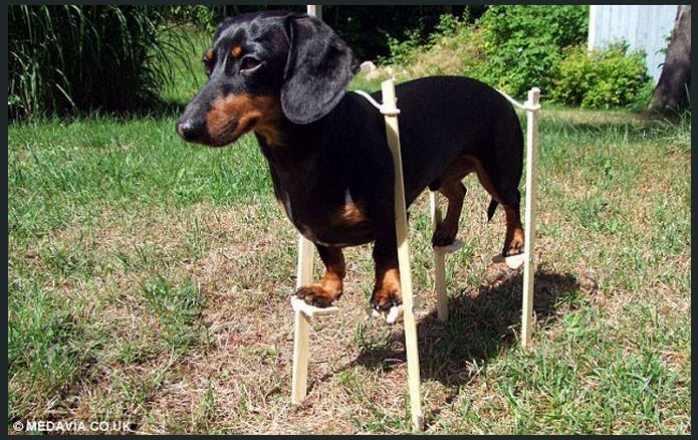
Hair Removal





Complications

Urethral Complications



Problems with urine stream

- Stricture (narrowing)
- Fistula (leaks/multiple streams)
- Dribbling
- Leaking into vaginectomy site, other vaginectomy problems

If stricture or fistula occur, you may need to have a suprapubic (lower stomach) catheter for longer periods of time, which can result in

- Discomfort and bladder spasms
- Weakening of bladder
- Chronic urinary tract infections

If no vaginectomy, narrowing there that prevents penetration

Urethral complications can be an emergency! Establish care with a local urologist before you get surgery somewhere else.

Getting better with practice

Table 2. Complications

	Overall (%)	1992–1997 (%)	1997–2001 (%)	2001–2007 (%)
No.	287	59	62	167
Flap-related				
Anastomotic revision	34 (12)	8 (13.6)	7 (11.2)	19 (11.3)
Complete flap loss	2 (0.7)	1 (1.7)	1 (1.6)	0
Marginal partial necrosis (13 additional operations)	21 (7.3)	6 (10)	5 (8)	10 (6)
Urologic				
Early fistula (closing spontaneously)	51 (17.7)	12 (20)	12 (19.4)	27 (16.1)
Stricture treated conservatively	21 (7.3)	5 (8.4)	5 (8)	11 (6.5)
Fistula/stricture requiring urethroplasty (97 additional operations)	52 (18.1)	12 (20)	12 (19.4)	28 (16.7)
Various				
Minor pulmonary embolism	3 (1)	1 (1.7)	2 (3.2)	0
Regrafting of defect on arm	2 (0.7)	1 (1.7)	1 (1.6)	0
Nerve compression (early cases)	2 (0.7)	2 (3.3)	0	0
Delayed wound healing in groin area (four additional operations)	32 (11.1)	9 (15.2)	7 (11.2)	16 (9.6)
Erectile prosthesis (130 prostheses)				
No.	130	21	32	77
Revision surgery	58 (44.6)	13 (62)	16 (50)	29 (37.6)
Incapacity to perform sexual intercourse	26 (20)	6 (28.5)	7 (22.6)	13 (17)

“Penile Reconstruction: Is the Radial Forearm Flap Really….” Monstrey, 2009

48% rate of urinary complication becomes 39% rate of urinary complication

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Urethral Complications

Table 1: Presenting Symptoms Stratified by Initial Genital Reconstructive Surgery

	Vaginal Remnant	UCF	Phallic Urethral Obliteration	Meatal Stenosis	Anastomotic Stenosis
Metoidioplasty (N=18)	10 (56%)	10 (56%)	5 (28%)	11 (61%)	7 (39%)
Phalloplasty (N=51)	21 (41%)	21(41%)	16 (32%)	21 (41%)	30 (59%)
Metoidioplasty to Phalloplasty (N=6)	0 (0%)	5 (83%)	0 (0%)	1 (17%)	2 (33%)
Metoidioplasty and Phalloplasty (N=3)	0 (0%)	1 (33%)	0 (0%)	0 (0%)	2 (66%)
Total (N=78)	31 (40%)	37 (47%)	21 (27%)	33 (42%)	41 (53%)
P value	0.09	0.18	0.36	0.09	0.31

Patients who visited the non-primary urologist on average 4.5 months post surgery

Other Complications

Sensation and nerve regrowth

- Lack of sensitivity
- Hypersensitivity
- Painful sensation

Scrotoplasty and testicular implants/erectile device

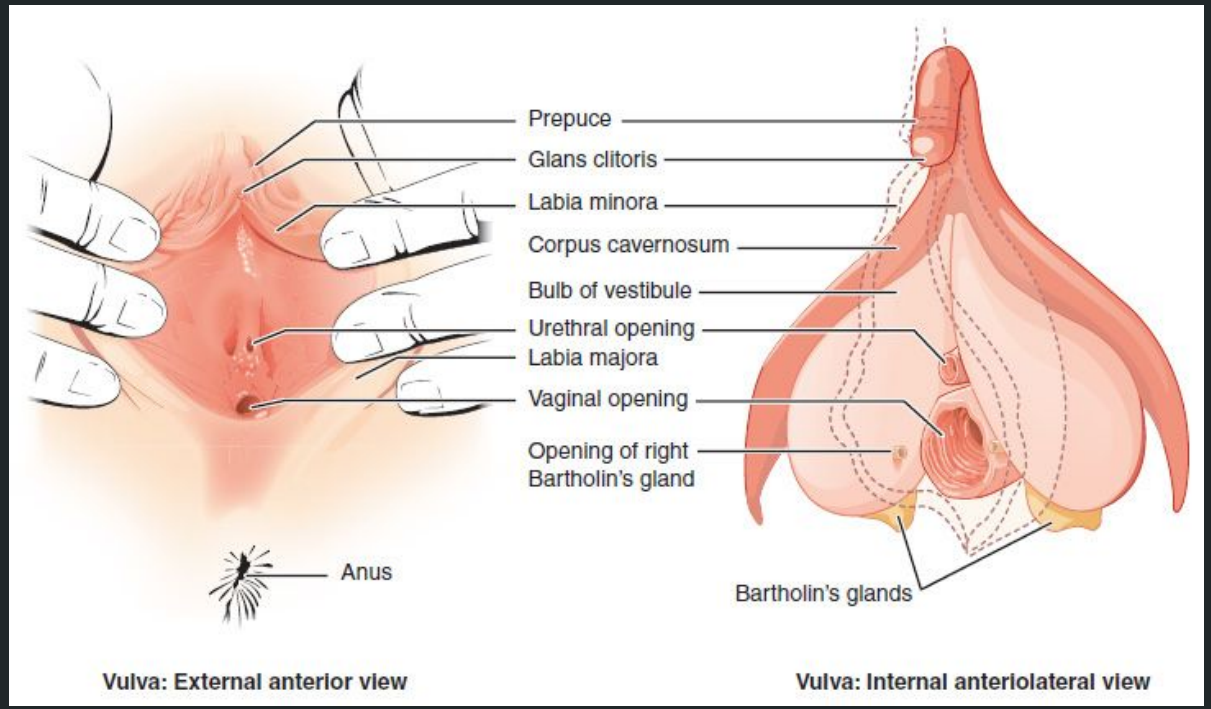
- Placement issues (not forward/up enough scrotum) and problems with pain, adherence, or extrusion of implants

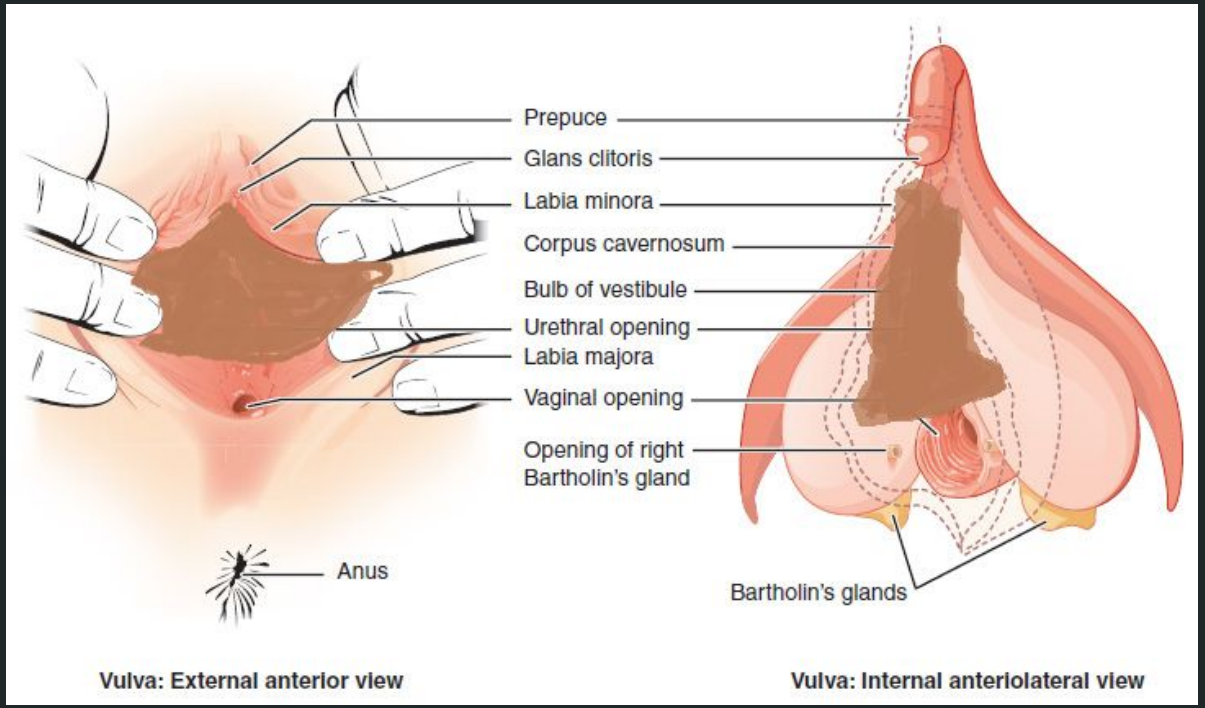
Specific to Phalloplasty

- Flap loss, problems with blood supply
- Problems related to erectile device
- Problems related to donor site

Urethral Lengthening and Maintaining Front Hole Access

- The tissue used to make the new urethra water (urine) tight limits access to the front hole, narrowing opening
- Additionally, many surgeons add bulk like gracilis muscle or other material to help further protect the point where your old and new urethras meet
- This can be partially addressed with dilation
- Many people who have urethral complications after UL without vaginectomy end up getting vaginectomy to fix complications
- Surgeons that will do it: BCSS, Dr. Obrien-Coon (?)


Prepuce
Glans clitoris
Labia minora
Corpus cavernosum
Bulb of vestibule
Urethral opening
Labia majora
Vaginal opening
Opening of right Bartholin's gland
Anus
Bartholin's glands
Vulva: External anterior view
Vulva: Internal anteriolateral view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Vulva: Internal anteriolateral view

Pictures

RFF

Dr Curtis Crane

“Aesthetic Refinements after Radial Free Flap Phalloplasty: Optimizing the Donor Site and the Phallus”
Manero et all, 2017

MLD
(scar cannot always be closed as single line)

ALT

Erectile Device- Pump and Rod

.gif moving image

Phalloplasty w/ no vaginectomy, dr Devin O'Brien-Coon

Data

It exists!

"A systematic review of metoidioplasty and RFF Phalloplasty..." Hazen, 2016

Table 2. Demographics and Outcomes in Included Studies Examining Radial Forearm Flap Phalloplasty for Female-to-male Transgender Genital Reconstruction

	n	F/U (y)	Single Stage (%)	Aesthetic Satisfaction (%)	Erogenous Sensation (%)	Tactile Sensation (%)	Stricture/ Fistulas per Patient	Standing Micturition (%)	Overall Complications per Patient	Donor-site Complication Rate (%)	Sexual Intercourse (%)
Matti et al[28]	5	NR	NR	40.0	NR	NR	0.40	40.0	1.00	NR	0.0
Fang et al[27]	56	NR	NR	NR	NR	71.4	0.80	71.4	1.16	0.0	NR
Fang et al[26]	22	NR	0	36.4	NR	NR	0.77	NR	1.27	45.5	40.9
Leriche et al[24]	56	9.17	NR	90.0	9.0	83.0	0.32	NR	0.57	0.0	51.0
Kim et al[25]	40	6	NR	87.5	100.0	NR	0.20	90.0	0.40	5.0	NR
Schaff et al[23]	6	NR	NR	NR	NR	NR	NR	NR	NR	NR	83.3
Monstrey et al[11]	287	NR	NR	NR	NR	NR	0.41	NR	0.75	0.70	NR
Garaffa et al[29]	115	2.17	0	97.4	86.0	NR	0.35	99.0	0.70	19.1	NR
Song et al[22]	19	NR	0	50.0	50.0	NR	0.79	75.0	1.16	15.8	37.5
Van Caenegem et al[15]	44	7	NR	NR	NR	NR	NR	NR	NR	0.0	NR
Garcia et al[21]	15	6.8	NR	90.5	100.0	NR	NR	NR	NR	NR	NR
Average	60.5	6.23	0	70.0	69.0	77.0	0.51	75.0	0.88	10.7	42.5

F/U, follow-up; NR, not recorded.

If you really want to get nerdy about it, go look at the studies being compared to each other in this meta analysis. (in journal article repository link, slide 10)

Questions get asked slightly differently by the original authors of the different studies.

I'm always fascinated by how cisgender surgeons ask questions about sexual health and pleasure. We need more TGNB led research in this area!

MGSIS Items	Strongly Agree (n)	Agree (n)	Disagree (n)	Strongly Disagree (n)
1. I feel positively about my genitals	7	—	—	—
2. I am satisfied with the appearance of my genitals	—	7	—	—
3. I would feel comfortable letting a sexual partner look at my genitals	—	6	1	—
4. I am satisfied with the size of my genitals	—	5	2	—
5. I think my genitals work the way they are supposed to work	—	5	2	—
6. I feel comfortable letting a health-care provider examine my genitals	7	—	—	—
7. I am not embarrassed about my genitals	7	—	—	—

n, number of patients.

(post medical tattooing on whole penis)

“Aesthetic Refinements after Radial Free Flap Phalloplasty: Optimizing the Donor Site and the Phallus” Manero et all, 2017

ABILITY OF ACHIEVING AN ORGASM	RFF	ALT
1. Was able to achieve an orgasm before and after surgery.	n = 26	n = 14
2. Was able to achieve an orgasm before but not after surgery.	n = 2	n = 1
3. Was not able to achieve an orgasm before but is able to achieve an orgasm after surgery.	n = 3	n = 0
4. Was not able to achieve an orgasm before surgery and still is not able to achieve an orgasm after surgery.	n = 1	n = 0

Table 13: Ability of achieving an orgasm before and/ or after surgery.

	Revision anastomosis	Flap Failure	Infection	Hematoma
RFF	12.5% (n = 3)	50.0% (n = 12)	25.0% (n = 6)	20.8% (n = 5)
ALT	0.0% (n = 0)	100.0% (n = 8)	0.0% (n = 0)	12.5% (n = 0)
P-value	.555	.014	.296	1.000

Table 5: Different postoperative complications.

Capelle, R. Massault, E. “Comparative Study: Free Radial Forearm Flap Phalloplasty Versus Anterior Lateral Thigh Flap Phalloplasty” 2017

Table III. Sexual Relationship Parameters Before and After Sex Reassignment Surgery

	Male-to-female			Female-to-male		
	Before	After	*p*	Before	After	*p*
Stable sexual relationship						
N	32	32		19	23	
%	34.4	59.4	.043	36.8	43.5	*ns*
No sexual partners since SRS						
N		32			23	
%		21.9			30.4	*ns*
Start relationship						
N		19			9	
%	52.6	47.4	*ns*	44.4	55.5	*ns*
Sexual partner (*N*)	11	19		9	10	
Man (%)	54.5	73.7		0.0	10.0	
Woman (%)	45.5	26.3	*ns*	100.0	90.0	*ns*
Sexual satisfaction with partner (*N*)	9	19		6	11	
(Very) satisfied (%)	77.7	78.9		50.0	81.9	
Neutral–(very) unsatisfied (%)	22.2	21.0	*ns*	50.0	18.1	*ns*
Frequency orgasm in sexual intercourse (*N*)	24	28		11	18	
(Almost) always (%)	41.7	50.0		45.5	77.8	
Never–sometimes (%)	58.3	50.0	*ns*	55.5	22.2	*ns*

Table V. Satisfaction with Surgical Results (%)

	Male-to-female		Female-to-male	
	Breast augmentation ($n = 21$)	Vaginoplasty ($n = 29$)	Mastectomy ($n = 14$)	Phalloplasty ($n = 19$)
Very satisfied	66.6	48.3	35.7	33.3
Satisfied	28.6	37.9	42.8	55.5
Neutral	4.8	10.3	21.4	11.1
Unsatisfied	0.0	0.0	0.0	0.0
Very unsatisfied	0.0	3.4	0.0	0.0

Table VI. Female-to-Males with and Without Erection Prosthesis (%)

	With prosthesis, ($n = 12$)	Without prosthesis, ($n = 10$)
(Nearly) totally realization of expectation	83.3	60.0
More than one partner since SRS	66.7	40.0
Stable sexual relationship	50.0	40.0
(Very) satisfied with sex life	75.0	77.8
Improvement of sex life	83.3	62.5
Sexuality is (very) important	91.7	50.0
(Very) often excited sexually	58.3	60.0
Often preoccupied with provoking sexual fantasies	50.0	13.5
Often (from several times/week until 1 time/month) masturbation	91.7	80.0
(Mostly) always orgasm during masturbation	90.9	100.0
(Mostly) always orgasm during intercourse	60.0	100.0
Never pain during intercourse	44.5	100.0

“Sexual And Physical Health After Sexual Reassignment Surgery” de Cuypere, 2006

		Medical Record Data*	Self-Reported Data^		
		Received n (%)	Complications n (%)	Satisfied n (%)	Missing Data& n (%)
Feminizing surgery	Vaginoplasty	71 (88)	21 (38)	53 (96)	16 (23)
	Mamma augmentation	33 (41)	6 (22)	25 (96)	7 (21)
	Thyroid cartilage reduction	9 (11)	0 (0)	6 (100)	3 (33)
	Facial surgery	7 (9)	0 (0)	7 (100)	0 (0)
	Vocal cord surgery	3 (4)	1 (100)	0 (0)	2 (67)
Masculinizing surgery	Mastectomy	49 (96)	19 (53)	34 (94)	13 (27)
	Uterus extirpation	48 (94)	5 (14)	34 (97)	13 (27)
	Phalloplasty	15 (29)	4 (44)	9 (100)	6 (40)
	Metoidioplasty	3 (6)	2 (100)	2 (100)	1 (33)

“Surgery Satisfaction, Quality of Life….” Van de Grift, 2017

“**What Surgeons Need to Know About Gender Confirmation Surgery When Providing Care for Transgender Individuals**” Berli et all, 2017

“The role of…” Vukadinovic, 2014

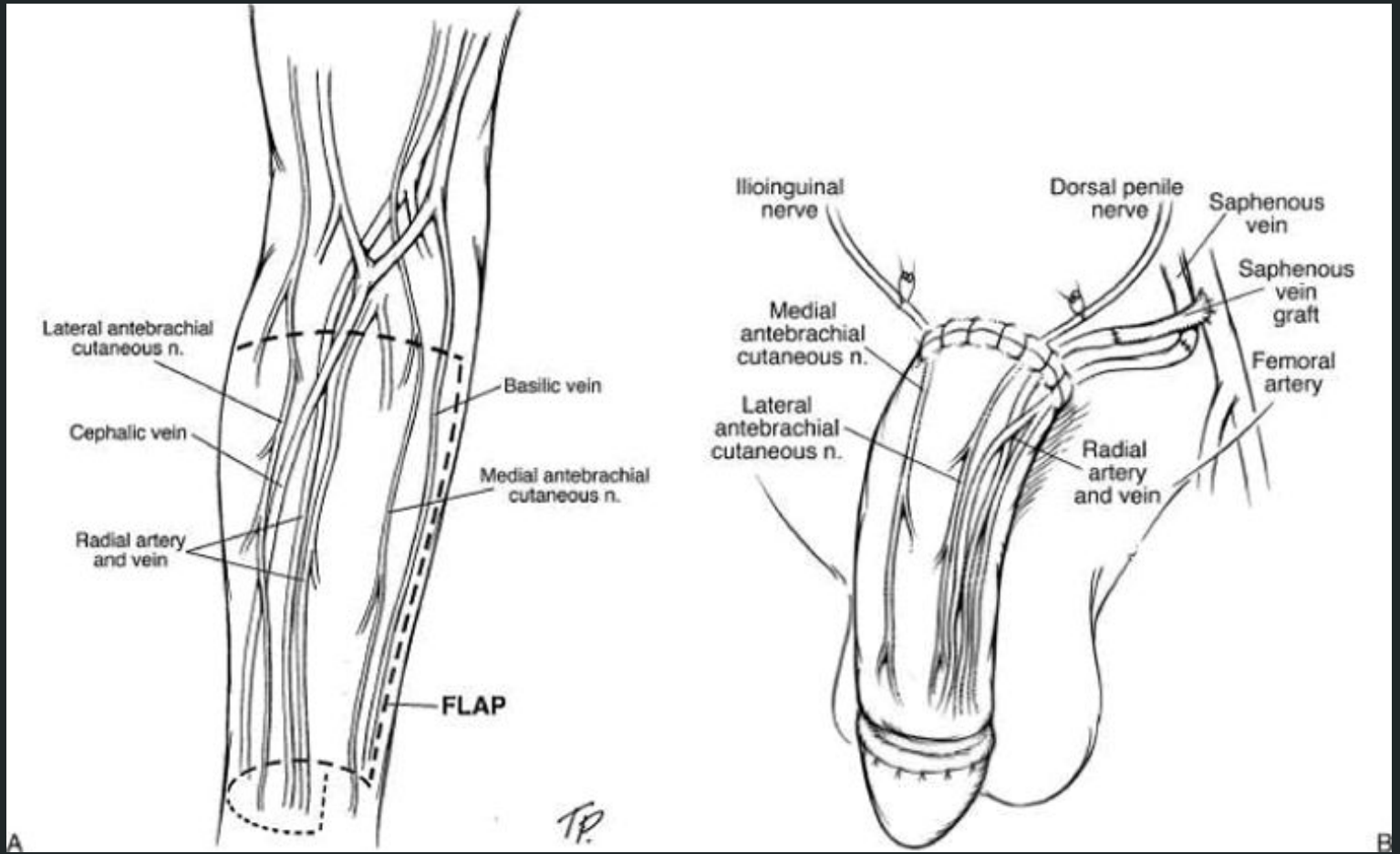
Capelle, R. Massault, E. “Comparative Study: Free Radial Forearm Flap Phalloplasty Versus Anterior Lateral Thigh Flap Phalloplasty” 2017

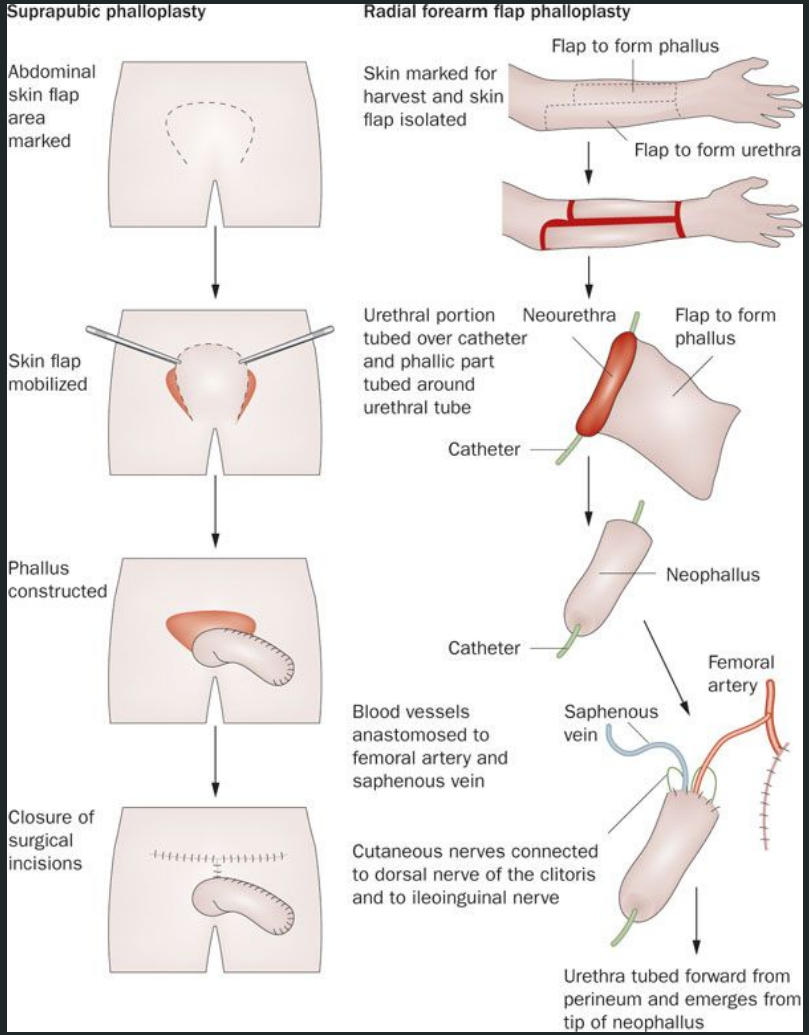
“Penile Reconstruction: Is the Radial Forearm Flap Really….” Monstrey, 2009

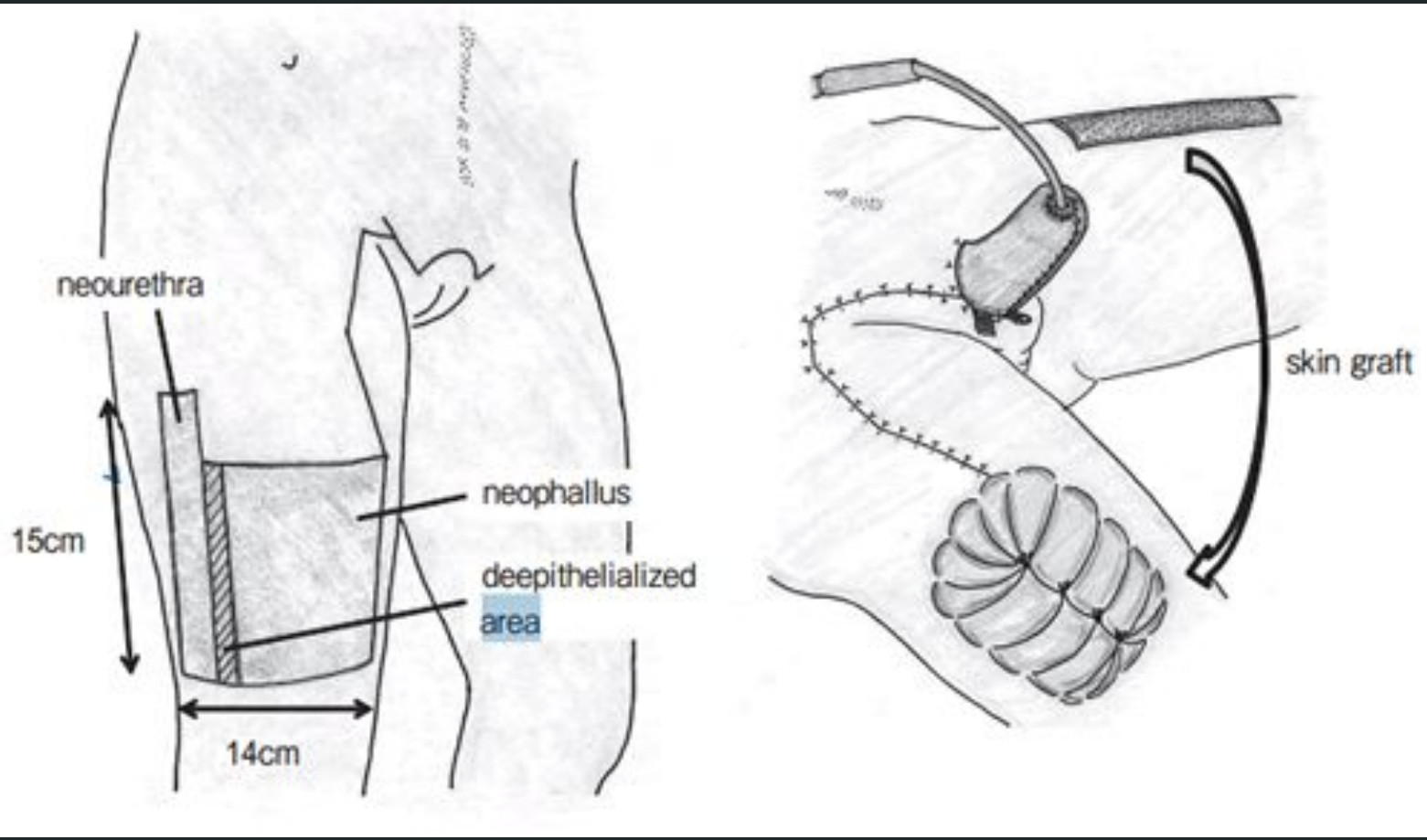
“Surgery Satisfaction, Quality of Life….” Van de Grift, 2017

“A systematic review of metoidioplasty and RFF Phalloplasty…” Hazen, 2016

Surgical Diagrams


Lateral antebrachial cutaneous n.
Cephalic vein
Radial artery and vein
Basilic vein
Medial antebrachial cutaneous n.
FLAP
A
Ilioinguinal nerve
Dorsal penile nerve
Saphenous vein
Saphenous vein graft
Femoral artery
Medial antebrachial cutaneous n.
Lateral antebrachial cutaneous n.
Radial artery and vein
B


Suprapubic phalloplasty
Abdominal skin flap area marked
Skin flap mobilized
Phallus constructed
Closure of surgical incisions
Radial forearm flap phalloplasty
Flap to form phallus
Skin marked for harvest and skin flap isolated
Flap to form urethra
Urethral portion tubed over catheter and phallic part tubed around urethral tube
Neourethra
Flap to form phallus
Catheter
Neophallus
Catheter
Femoral artery
Blood vessels anastomosed to femoral artery and saphenous vein
Saphenous vein
Cutaneous nerves connected to dorsal nerve of the clitoris and to ileoinguinal nerve
Urethra tubed forward from perineum and emerges from tip of neophallus


neourethra
neophallus
deepithelialized
area
15cm
14cm
skin graft

Glansplasty