

TRANSGENDER HEALTH PROGRAM

# Phalloplasty

Guide to gender-affirming surgery



### Usage statement

These patient education materials were developed by the OHSU Transgender Health Program and the Division of Plastic and Reconstructive Surgery. They are intended to be used only for the OHSU surgical program. These materials are being updated regularly as we continually evaluate and improve the program.

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Sincerely,

OHSU Transgender Health Program and  
Division of Plastic and Reconstructive Surgery

Welcome!	4
Your care team	6

## **Section 1:**

### **Phalloplasty overview**

What is phalloplasty?	8
What to consider	8
Your first consultation	9
Language and terminology	10
Phalloplasty options	13
Urination options	16
Donor sites	17
Phallus length	20
Stages and timeline	20

## **Section 2:**

### **Postoperative expectations**

Complications	26
Sensation and sexual activity after surgery	29

## **Section 3:**

### **Preparing for surgery**

Support and recovery plan worksheet	32
Finding a mental health therapist	34
Letters of support	35
Nicotine cessation, diabetes control and weight loss	37
Hair removal guide and FAQ	39

## **Section 4:**

### **Planning for recovery**

Caregiver requirements	42
Financial planning	43
Housing	44
Physical restrictions after surgery	44
Adapting to change	45
Supplies to get before surgery	45
Packing your bag for the hospital	46
Restrictions before surgery	46

## **Section 5:**

### **Your hospital stay and stages of surgery**

Hospital welcome and tip sheet	48
Stage 1: Creating your phallus	50
Stage 2: Perineal masculinization	58
Stage 3: Erectile devices	61

## **Section 6:**

### **Resources**

Crisis and support	64
Transgender Health Program resources	66
Fertility and assisted reproduction	66



## Welcome!

### From the Division of Plastic and Reconstructive Surgery

Welcome to the gender-affirming surgery program of the Division of Plastic and Reconstructive Surgery. We look forward to caring for you.

We work closely with the Urology Team and Transgender Health Program to provide expert phalloplasty care. We are here to help you make important decisions and know what to expect in the surgery planning and recovery processes. Our team consists of:

- Surgeons
- A fellow
- A physician assistant
- Medical assistants
- Our surgery scheduler
- Resident physicians
- An electrologist
- And **you**

That's right, you! We value your input, your perspective and all the work you are and will be doing to prepare for and recover from surgery. We look forward to getting to know you better and learning how we can help you.

We want to make your surgery and recovery as smooth as possible. We'll answer any questions you have and make sure you have the best possible outcome.

Preparing for and recovering from phalloplasty surgery is a long process with many steps. We created this guide to help you understand and navigate the process. It has three sections:

- Before surgery
- Surgery stages and your hospital stay
- After surgery

It is helpful to read this information before your first visit with your surgeon. This booklet outlines the most common

approaches to phalloplasty at OHSU. Because phalloplasty is customized to each patient's anatomy, history and goals, the content in this booklet may not represent your specific experience.

### **From the Transgender Health Program**

Our surgery team is one part of a bigger team called the OHSU Transgender Health Program. At the Transgender Health Program, we are committed to your health and well-being. We know that high-quality health care in an affirming, welcoming environment can be lifesaving. We work as an interdisciplinary team. This means our program's patient navigator, social workers and/or psychologist are all part of the care team and may be involved in your care. Your clinic visits with your surgeon may also include these team members. Or, supporting you in your surgery preparation may include meeting with members of the team between your clinic visits.

The Transgender Health Program — THP for short — provides support, information and advocacy, including:

**Support:** We can assist with care coordination, surgery planning, supportive counseling and/or connecting you to community resources.

**Top providers:** We can connect you with OHSU providers who are international leaders in caring for gender-diverse patients of all ages.

**Access:** We strive to increase access to health care for the transgender and gender-nonconforming communities at OHSU and beyond.

**Leadership:** We work with community partners to provide advocacy, shape policies and train health care professionals.

**Education:** We offer written patient education materials and classes on gender-affirming surgery.



Dr. Jens Berli



Dr. Blair Peters



Dr. Geolani Dy



Dr. Kamaran Sajadi

## Your care team

At OHSU, experts from different backgrounds work together to provide the best phalloplasty care possible. Your care team will support you at every stage of phalloplasty surgery and recovery.

The program has two plastic surgeons, Dr. Jens Berli and Dr. Blair Peters, who work together to care for all phalloplasty patients. They use the same approach to phalloplasty, including staging, techniques and donor sites. They have extensive experience, doing almost two dozen a year, and maintain a database of phalloplasty surgeries to aid research and improve outcomes. They have also published and lectured on phalloplasty nationally and internationally.

You will see one of the surgeons for your phalloplasty consultation and preoperative care. In many cases the same surgeon you saw in consultation will perform your first- and second-stage surgeries but sometimes your first-stage surgery will be performed by one surgeon and second stage by the other. Rest assured that Dr. Berli and Dr. Peters assume care of all phalloplasty patients and discuss every patient in a joint manner. This includes agreeing on plans and addressing all postoperative concerns. If your first- or second-stage surgery is to be performed by the surgeon that did not see you in consultation, you will meet that surgeon and have ample opportunity to discuss questions and concerns at the preoperative appointment before surgery.

As phalloplasty is a complex series of operations with intensive pre- and postoperative care, we work within a larger OHSU phalloplasty team to provide the best care possible. This team includes two urologists, Dr. Geolani Dy and Dr. Kamaran Sajadi, who work in close partnership with the plastic surgery team to provide comprehensive care.

OHSU is a teaching hospital, so resident and fellow surgeons also will see you daily and examine your surgical sites while you're in the hospital.





## Section 1:

### Phalloplasty overview

We know this surgery is extremely important. It takes incredible trust to allow a surgeon to perform this operation. We want you to know we are humbled by that trust and take it very seriously.

The first step in this complex process is understanding your options and creating a plan that meets your needs. We've created this overview to help you make important decisions and know what to expect.

### What is phalloplasty?

Phalloplasty is a series of surgeries over many months to create a phallus with tissue from elsewhere on the body. Our plastic surgeons and reconstructive urologists do various stages of this surgery.

Phalloplasty can be done in many ways. At OHSU, we have adopted and modified the “Big Ben Method” developed by surgeons at St. Peter’s Andrology Centre in London.

Phalloplasty, in ideal circumstances, can enable you to:

- Have a body that more closely aligns with your gender.
- Have a phallus with sensation.
- Have intercourse with an external or internal device.
- Urinate while standing.

Each patient’s surgery and results are different.

### What to consider

Before your first consultation, we encourage you to:

- Consider your surgical goal and priorities.
- Write down your questions and bring them with you to your visit.
- Think about whether you want biological children in the future so we can discuss fertility preservation options.
- Ask a support person to come with you. Ideally, this is the same person who will care for you after surgery.

Ask yourself the importance of:

- The appearance of your phallus.
- Having sensation.
- Being able to stand to urinate.
- The ability to have sexual intercourse.
- Removing the vaginal canal.
- Retaining childbearing ability.





It is important to review sections 1 and 2 of this book before your first consultation.

## Your first consultation

Your first consultation is an opportunity for us to learn about your hopes and goals. You will be given a questionnaire to help us meet your needs and measure the results. Your surgeon will review various surgical options available to you and explain the process.

Once we understand your goals, we will:

- **Evaluate your anatomy.** We determine the best donor site for surgery by examining your lower abdomen and thighs and your nondominant forearm.
- **Perform a brief external genital exam to assess the tissue available for scrotoplasty.**
- **Assess your overall health** to see which surgeries can meet your goals. You may be asked to lose weight or make lifestyle changes to prepare your body for surgery.

A fair amount of time is spent during the consultation with your surgeon, but you may also meet the other members of your care team. Phalloplasty surgery is extensive, requiring a team of residents (surgeons in training), fellows (gender surgeons in training), physician assistants and medical assistants. When team members introduce themselves, they will discuss their role in your care and answer your questions.

## Language and terminology

This document uses language based on the anatomy related to the sex you were assigned at birth. Our goal is for you to clearly understand what we are referring to and to avoid confusion. You are encouraged to share the terms you use to describe your body. We are committed to using your words when referring to your body.

**Below are terms with definitions that you may see throughout this document.**

TERM	DEFINITION
<b>Burying of clitoris (clitoroplasty)</b>	The procedure in which the clitoris is tucked between the base of the phallus and the scrotum, close to the pubic bone. The clitoris is covered so it can't be seen. Select patients may choose to have the glans of the clitoris left uncovered and this is a potential option.
<b>Catheter</b>	A thin tube. Catheters go into your bladder to drain urine after the surgery. <ul style="list-style-type: none"><li>• Urinary catheter (after stage 1): via current urethra.</li><li>• Penile catheter (after stage 2): via shaft.</li><li>• Suprapubic catheter (after stage 2): enters bladder through the lower belly.</li></ul>
<b>Donor site</b>	Location on the body where tissue is taken from during surgery, such as your radial forearm or thigh.
<b>Erectile device</b>	Device implanted inside the phallus to create an erection. The choices are a semi-rigid device or an inflatable (pump) device.
<b>Extrusion</b>	A complication of the erectile device. The implant pushes uncomfortably against the tissues inside the phallus and creates an internal pressure sore. This is most common when staying in a single position for too long, like during air travel. It can also happen while an inflatable implant is left pumped up.
<b>Fat grafting</b>	Procedure to add fat to a region. For example, we can take fat from an area of the body and add it to the phallus to make it thicker.
<b>Fistula</b>	This is an area of leakage from the urethra. It means there is a connection between the urethra and the outside of the phallus. Some fistulas heal on their own. If not, additional surgery is needed for fistula repair.

TERM	DEFINITION
<b>Flap</b>	<p>Tissue that is moved from one area (donor site) of the body to another site (recipient site). A flap has its own blood supply (blood vessels). It includes skin, fat, blood supply and nerves.</p> <ul style="list-style-type: none"> <li>• A <b>free flap</b> has its blood vessels cut and then reconnected again to the blood vessels where the flap is placed (recipient site).</li> <li>• A <b>pedicled flap</b> does not have its blood vessels cut. The tissue is moved around to a nearby part of the body, and the blood vessels stay attached.</li> </ul>
<b>Girth</b>	The thickness/circumference of the phallus. Girth can change over time as you heal or gain/lose fat.
<b>Glansplasty (coronaplasty)</b>	Surgery to make the ridge on the glans (head) of the phallus. It gives the phallus the appearance of a circumcised penis with a coronal ridge. This is done using a skin graft from a previous scar (thigh or lower belly).
<b>Graft</b>	Tissue moved from one area of the body to another. A graft does not have its own blood supply (in contrast to a “flap”). A graft receives blood supply from the wound bed (open surface of a wound) it is placed on. Examples: skin graft and buccal mucosa graft (inside of cheek). Skin grafts are either “split thickness,” which is like a thin shave (think a road rash) or full thickness.
<b>Hand therapy</b>	Rehabilitation for the hand and arm. This is done by an occupational therapist or physical therapist. A certified hand therapist (CHT) has an advanced certification and a phalloplasty patient should choose one if possible. Hand therapy typically starts 10 days after your skin graft has been placed on the forearm.
<b>Hysterectomy</b>	Surgical removal of the uterus.
<b>Integra</b>	This is a collagen sheet placed on the forearm donor site. It can help the arm look better after it has healed, and serves as an extra layer of protection over the nerves and tendons. It is unclear if it improves your hand function after surgery. Collagen is a protein naturally found in our skin and other tissues. Integra is made of animal collagen. Insurance coverage for this varies as it can be very expensive. Integra placement is optional and not a required step.
<b>Liposuction</b>	Procedure to remove fat. With liposuction, fat can be removed from one part of the body and then placed in the phallus to increase the girth (known as lipofilling/fat grafting). These procedures are often not covered by insurance.

TERM	DEFINITION
<b>Meatus</b>	Opening of the urethra at the end of the phallus.
<b>Native urethra</b>	The urethra that one is born with (natural tube leaving the bladder which urine exits from).
<b>Oophorectomy</b>	Removal of one or both ovaries. Some people may choose to keep one ovary for future fertility options. Some also choose to keep an ovary to ensure certain hormones are in the body in case one has concerns about future access to hormones.
<b>Outpatient</b>	A term used to describe or label a surgery, procedure or clinic visit when a patient goes home the same day.
<b>Penile urethra</b>	The urethra in the phallus. Also referred to as pars pendulans or shaft urethra.
<b>Perineum</b>	Area between scrotum and anus.
<b>Perineal masculinization</b>	Surgery to make the genitals appear more masculine. This can include the creation of a perineal urethra, scrotoplasty, burying of clitoris and vaginectomy.
<b>Perineal urethra</b>	The urethra that connects the native urethra with the penile urethra. This is created using local tissue taken from your vulva.
<b>Scrotoplasty (oscheoplasty)</b>	Surgery to repair or create a scrotum.
<b>Stricture</b>	A stricture is a narrowing of the urethra that prevents or slows down the urinary flow. This often requires additional surgery.
<b>Wound VAC</b>	A negative pressure device that aids in wound healing. This is placed on the forearm at the time of surgery and removed about 5 days after surgery.
<b>Vaginectomy</b>	Removal of the vagina and closing of the vaginal opening.

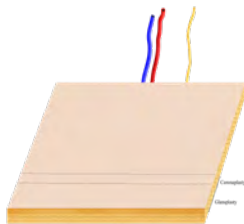


## Phalloplasty options

It is helpful to consider that deciding on a phalloplasty involves two components:

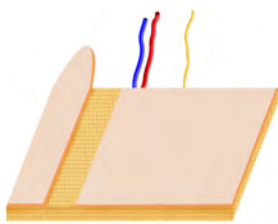
- Where to take the tissue from (donor site).
- Staging of the surgery (single stage, Big Ben Method, metoidioplasty first, premade urethra with graft, secondary urethra with graft).

Keep that framework in mind as you read through the next few sections of this booklet.



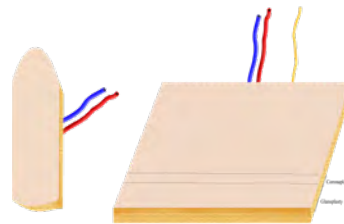
### Shaft only:

Only an outer tube is created, and the patient continues to urinate from their existing urethra. You can still choose to have the vaginal lining removed, a scrotum created and the clitoris buried. Or you can have a scrotum created while keeping the vaginal canal. All donor sites (where tissue is taken from) are options.



### Tube within a tube:

We use one piece of tissue to form two tubes. One has skin on the outside for a shaft and one has skin on the inside for the urethra. The tissue usually comes from the forearm. In very thin patients, it can come from the thigh.



### Composite:

This is an option for patients who aren't good candidates for a tube-within-a-tube phalloplasty. The surgeon uses two pieces of tissue, usually from the thigh and forearm, to create the shaft and urethra separately. This option is associated with higher risks for complications and is only offered if no other options exist.

**Revision surgery:** Patients who had a phalloplasty done elsewhere can come to us to address specific issues or to complete their procedures. This includes patients who have had metoidioplasty who now wish to pursue phalloplasty.

## Shaft-only options

If you choose to create only a shaft without a new urethra, you have three options for your existing genitalia. For these shaft-only options, it is important to note that adding a penile urethra later is difficult, if not impossible, to achieve.

At OHSU we stage all shaft-only options in two surgeries. The first to create the shaft and connect the nerves, while the second surgery has the following three options:

### 1. Glansplasty with minor or no genital changes

**What it is:** We create a phallus and leave your current genitalia. If you have had previous genital surgery, such as a metoidioplasty, you will keep it. We do not create a new urethra in your shaft.

#### Factors to consider:

- Less surgery.
- Lower risk.
- You can still have vaginectomy, scrotoplasty and clitoroplasty surgery in the future, if you want.

### 2. Vaginectomy, scrotoplasty, clitoroplasty and creation of a perineal urethrostomy and glansplasty

**What it is:** We remove the vaginal lining, close the vaginal opening, create a scrotum and bury the clitoris. Your urethra will remain functional and visible below your new scrotum. It will be secured to the skin of your perineum.

#### Factors to consider:

- You will have fully masculinized genitalia, except for the urethra.



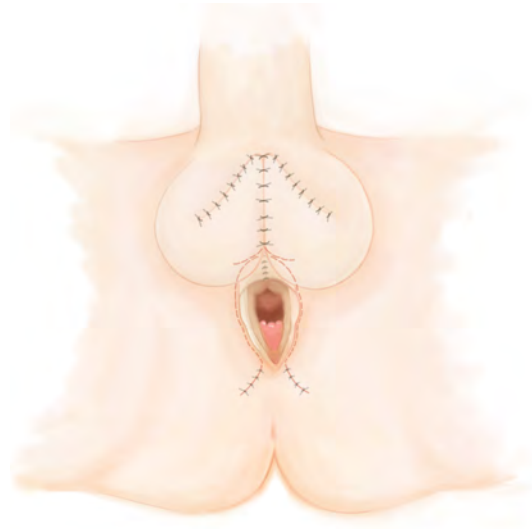
This graphic demonstrates shaft-only phalloplasty with scrotoplasty, clitoroplasty (clitoris buried and no longer visible) and vaginectomy. Urethral opening is located in the perineum just below the scrotum.

### 3. Vaginal preservation vulvo-scrotoplasty and glansplasty

**What it is:** We preserve the vaginal canal but create a scrotum and bury the clitoral tissue. Large labia minora (skin folds on your vulva) can be reduced if desired.

**Factors to consider:**

- Low risk.
- Some patients retain their erogenous zone.
- You can still have children.
- There is no need for a hysterectomy (removal of the uterus).
- Possible risk of urinary tract infection and skin irritation, but no scientific data are available yet.



This graphic demonstrates shaft-only phalloplasty with vaginal preservation. Clitoral tissue is buried and no longer visible, and a scrotum is created.

## Urination options

If it is important to you to stand to urinate, we can create a new urethra in your phallus. If standing to urinate is not a priority, you may want to choose a “shaft only” procedure (described above).

From the designs outlined above we offer the tube within a tube and composite flaps for phallic creation with a urethra. The surgery is performed in stages per the Big Ben Method (see section on staging below).

### Factors to consider

#### **If you choose a shaft urethra:**

- You may experience a higher risk of complications, such as fistula, stricture or urinary tract infection.
- We do not currently have good scientific studies that explore the long-term risks of creating a urethra. It is important to consider that unforeseen long-term issues could require ongoing medical or surgical care in the future.
- You can choose between the forearm and thigh donor sites. (Thigh is only possible if the patient is very thin.)
- Composite flaps are used in rare circumstances because the surgical risk with composites is elevated. Erectile implants are harder to place and urinary spray is more frequent with composite flaps.
- You will be required to get a hysterectomy prior to phalloplasty.

#### **If you choose a shaft-only procedure (no new urethra):**

- You may experience a lower risk of complications.
- You can choose between the forearm, thigh and abdominal-based donor sites.
- You can get an erectile device if you wish.
- If you change your mind in the future and decide you want to stand to urinate after the phalloplasty, it is extremely complicated to try to construct a penile urethra later. This secondary surgery is considered experimental, and postsurgical complications are likely.



## Donor sites

We can take tissue from three common donor sites to create your phallus:

### Radial forearm free flap

This is the most common.

We take skin, blood vessels

and nerves from the forearm.

This provides sensitivity and a natural appearance.

### Anterior lateral thigh flap

Tissue including skin, blood

vessels and nerves comes

from the side of the thighs.

Whenever possible, the blood supply is left attached (pedicled flap) and only the nerves are cut and reconnected.

### Abdominal flap

Lower abdominal skin is used

for a shaft-only phalloplasty.

This technique does not involve nerve connections and sensation can be limited. You will not have the ability to urinate while standing.

## Donor site comparison

The following chart provides a side-by-side comparison of what to expect with each possible site. Using donor flaps from two different locations is possible in rare and specific cases.

	RADIAL FOREARM FREE FLAP	ANTERIOR LATERAL THIGH FLAP	ABDOMINAL FLAP
<b>Phalloplasty type</b>	Tube within a tube Shaft only Composite	Tube within a tube* Shaft only Composite	Shaft only
<b>Sensation</b>	More feeling in the phallus.	Less feeling in the phallus.	Little feeling in the phallus.
<b>Thickness</b>	Thinner phallus.	Thicker phallus; may be too thick.	Medium thickness of phallus.
<b>Length</b>	4.5–5.5 inches**	4.5–6.5 inches**	4.5–5 inches**
<b>Urinary function</b>	Possible to stand to urinate.	Possible to stand to urinate.	Not possible to stand to urinate.
<b>Scarring</b>	Visible scar on forearm; skin graft taken from thigh.	Better-hidden scar on leg; skin graft taken from thigh.	Better-hidden scar on belly; rarely needs a skin graft.
<b>Pain and mobility</b>	May result in chronic hand swelling, decreased range of motion in the wrist and chronic pain.	May result in decreased leg strength and chronic pain.	May result in chronic pain from irritated nerve endings.

\*If patient is very thin.

\*\*The length of the phallus will depend on your tissue elasticity. The length will likely change as you get older.

	RADIAL FOREARM FREE FLAP	ANTERIOR LATERAL THIGH FLAP	ABDOMINAL FLAP
<b>Rehabilitation requirements</b>	Will need hand therapy to regain near normal function.	May need cane or walker at home while healing. May benefit from physical therapy and lymphatic massage.	No rehabilitation needed.
<b>Phallus rigidity</b>	Phallus is more flaccid. External devices for erection usually don't get good results. Internal erectile device is usually the best option to achieve erection.	Phallus is more rigid. External devices for erection may be good enough for low-intensity penetrative intercourse.	Phallus is more flaccid.
<b>Imaging requirements</b>	Rarely needs imaging before surgery.	Always need CT scan imaging of your legs before surgery.	No imaging before surgery needed.
<b>Flap</b>	Free flap.	Free or pedicled flap depending on the anatomy of your blood vessels.	Local flap with skin left partially attached to its original location.
<b>Procedure duration</b>	One stage, 7–8 hours.	One stage, 8–10 hours.	One stage, 3 hours.
<b>Length of hospital stay</b>	5–7 days	5–7 days	Overnight

### Reconstruction of the donor site

**What it is:** After we remove donor tissue from your thigh or forearm, we cover it with a skin graft to help it heal.

**How it's done:** We use a fine shaver to take a thin layer of tissue, called a split-thickness skin graft, from your thigh. We then attach it to the donor site wound, and it heals like a layer of skin. The shaved area on your thigh will look and heal like a large road rash.

#### Healing time:

- **1 week:** For graft to stick to wound.
- **10 days:** Until you can get your skin graft wet.
- **3–5 weeks:** Fully healed.

Physical therapy can start at 10 days after skin graft to the arm, and after 4 weeks for the thigh.

As every person heals differently, your surgeon will tell you if you can start these activities at your postoperative visit.

### Radial forearm free flap donor site reconstruction options

If you have a forearm donor site, you have the option of covering the wound with an Integra® collagen sheet for 2–3 weeks after your first surgery. Integra can help protect nerves and tendons and may improve how your arm looks when it is fully healed.

**If you choose Integra,** you have two options. Integra comes in a thinner and a thicker sheet. If you choose the thinner option, a skin graft is placed during the initial surgery. If you choose the thicker option, a skin graft from your thigh is placed 2–3 weeks later.

**If you don't choose Integra,** you will get a skin graft on the same day as your first phalloplasty surgery.

#### Factors to consider:

- Arm and hand function (strength and range of motion) is about the same with or without Integra.
- Integra is not covered by all insurance plans.
- With Integra:
  - Your arm might have a better appearance after it is completely healed.
  - You might have less nerve irritation.
  - You might have less hand swelling.
  - You will have a longer recovery time, because you will have an extra surgery and possibly more risks associated with surgery.
  - You will progress more slowly through hand therapy due to the delay caused by the additional surgery.

## Phallus length

It is impossible to predict the exact length of your phallus. We can give you a general estimate after doing an exam during consultation. Your phallus will probably get longer throughout your life because skin stretches as you get older. One factor affecting phallic length that is not within our control is the amount of skin elasticity.

## Stages and timeline

Phalloplasty can include a combination of several surgeries. You can choose some or all of these procedures. Each patient's process is different. Your surgeon will talk with you about the best options for you.

Some surgeries can be combined into one day, and some surgeries may need to be done at different times. Below is a sample phalloplasty timeline for someone undergoing all phalloplasty options offered at OHSU.

WHEN	PROCEDURE	MINIMAL HEALING TIME REQUIRED BEFORE NEXT SURGERY
Before stage 1	Hysterectomy — surgically remove the uterus Oophorectomy — remove one or both ovaries	2 months
Stage 1	Create the shaft Create a urethra within the shaft (optional) Coverage of shaft donor site	5 months
Stage 2	Perineal masculinization — surgery to make genitals look more masculine <ul style="list-style-type: none"><li>• Vaginectomy — removal of the vagina and closing of the vaginal opening.</li><li>• Perineal urethra — connecting the shaft urethra with the native urethra.</li><li>• Scrotoplasty — creating the scrotum.</li><li>• Burying of clitoris — procedure to tuck the clitoris between the base of the phallus and the pubic bone.</li><li>• Glansplasty — surgery to make a ridge on the head of the phallus, giving it the appearance of a circumcised penis.</li></ul>	4–6 months
Stage 3	Erectile device implants Testicular implants	Final surgery



### Before stage 1: Hysterectomy and oophorectomy

At OHSU, our gynecologic surgery team specializes in hysterectomies (uterus and cervix removal) and oophorectomy (removal of one or both ovaries) for gender-diverse patients.

You may not need to take this step before your phalloplasty if you choose to keep your vagina and vaginal opening.

**Preparation:** We usually recommend a year of hormone therapy first, to shrink the uterus. We don't require a year of social transition.

**How they are done:** We do nearly all these surgeries with a minimally invasive laparoscope and small incisions in the belly.

**If you live far from OHSU:** The Transgender Health Program social worker or your primary care provider can help you find a surgeon closer to your home.

**Healing time:** You must wait at least 2 months before moving on to stage 1 of your phalloplasty.

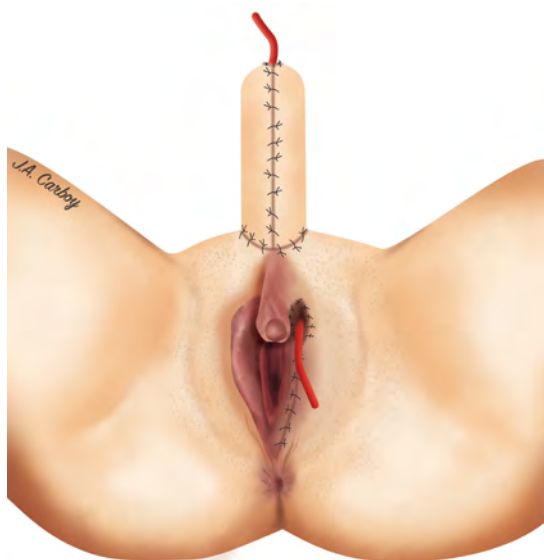
### Stage 1: Shaft creation

When we create your phallus, we create a skin tube within the shaft. One end is the tip creating the "meatus" and one end is brought out next to the clitoral shaft. Your urinary tract will not change following stage 1. You will not be able to stand to urinate until after stage 2.

During your first phalloplasty surgery, your surgeon forms and attaches your new phallus. Steps include:

#### Creating the shaft:

- Your surgeon takes a flap of tissue from a donor site and makes a new shaft.
- We attach the shaft to your genital region and connect the nerves and blood.



The red catheter in the graphic traverses the penile urethra, which extends from the tip of the phallus, down the entire length of the phallus and comes out on one side of the labia. This catheter will not be present postoperatively, but you will insert one daily after week 4 until your second surgery to keep the passage clean.

**Creating the shaft urethra:**

- We place a catheter in your shaft to create a new urethra.
- The shaft urethra is not connected to your native urethra at this time.
- We connect the shaft urethra to your native urethra at stage 2.
- You will continue to sit to urinate from your native urethra after stage 1.

**Covering the donor site:**

- If you opted for a thigh donor site, it will be covered with a skin graft.
- If you opted for a forearm donor site, it will be covered with a skin graft or Integra.
- If you opted for an ulnar forearm flap (composite phalloplasty) donor site, it will be covered with a skin graft.
- If you use Integra, you will need another surgery 2 weeks later to put a skin graft on top of the Integra.

**Healing time:** You need at least 5 months to heal before moving on to stage 2.

**Stage 2: Connecting your shaft urethra and perineal masculinization**

We create a new tube to connect your native urethra with the new shaft urethra. To do this, we place a catheter between the two urethras and then close your labial tissue over it. This new connection is called a perineal urethra.

To allow time to heal, this catheter normally stays for about 4–5 days.

You will also have a temporary suprapubic catheter (a thin tube inserted through a small hole in your belly into your bladder to drain it) for about 4 weeks after stage 2.

In this stage, we can make your genitals look masculine with the following procedures:

**Vaginectomy:** Our urology team removes your vagina and closes the vaginal opening.

**Creating the perineal urethra:** We connect your shaft urethra to your native urethra, enabling you to urinate while standing.

**Scrotoplasty:** We create a scrotum using the skin and fat from your labia majora (the outer folds of the vulva).

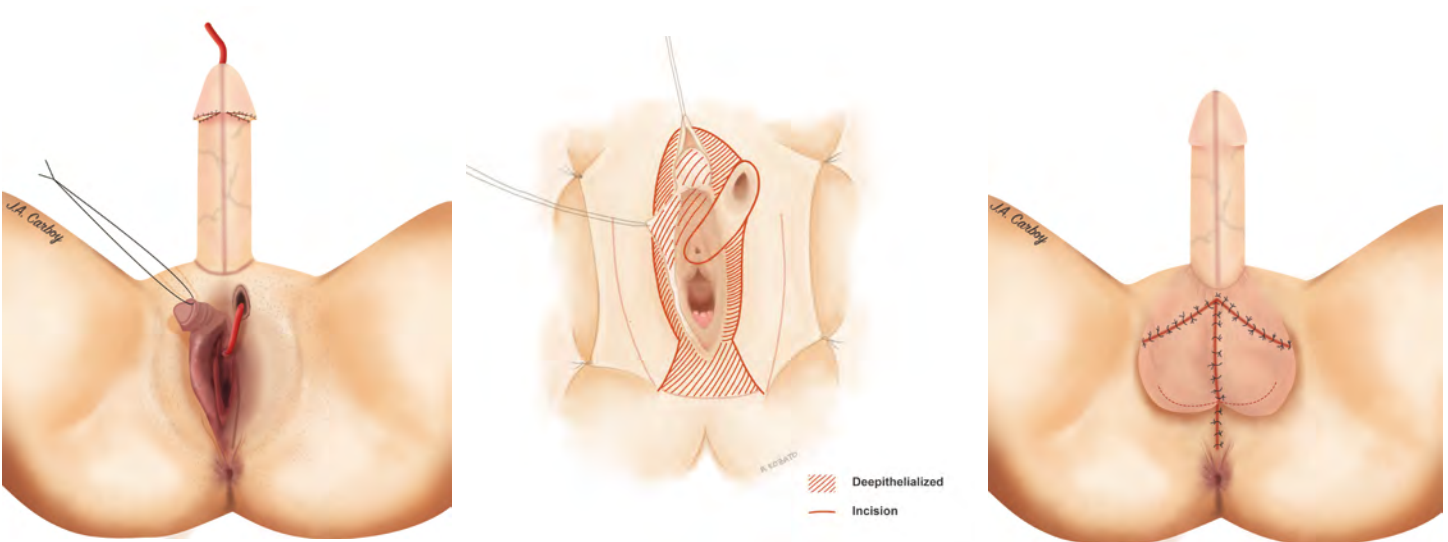
**Burying of clitoris:** We tuck the clitoris between the base of the phallus and the pubic bone.

**Glansplasty:** The surgeon adds a ridge to the tip of your shaft to make it appear circumcised. This is done using a skin graft from an old scar.

**Perineoplasty:** Closure of the area of skin where your vulva used to be.

**Healing time:** At least 4–6 months is required before moving on to stage 3.

**Aesthetic revisions:** Shaft modifications to make the shaft thicker (fat grafting) or thinner are available. Volume can be added by injecting fat from somewhere else in your body. Fat grafting cannot be done at the same time as a glansplasty. Thinning usually is done by direct excision of skin and fat and can be done at the same time as a glansplasty. Other revision surgeries include glansplasty revision, scrotal revision, mons lift and scar revisions.



**Left:** Catheter connecting the native urethra to the penile urethra.

**Middle:** Closing labia over the catheter to create the perineal urethra.

**Right:** End result following urethral lengthening, vaginectomy, scrotoplasty, clitoral burying and glansplasty.

### Stage 3: Implants

OHSU's urology team places erectile devices and testicular implants in the third stage of phalloplasty. A glansplasty must occur prior to that surgery as it can't be done at the same time.

#### Implants include:

- Erectile device implants — usually an inflatable device, rarely a semi-malleable or semi-rigid rod.
- Testicular implants — silicone or saline.



Example of Coloplast testicular implants



Example of a Coloplast inflatable penile prosthesis (usually only one cylinder inserted)



Example of a Coloplast semi-rigid rod





## Section 2:

### Postoperative expectations

#### Complications

Our goal is to prevent complications. We do this by using careful surgical techniques, completing the phalloplasty in multiple stages, helping you to be in the best health, and ensuring that you have a safe plan for your recovery. However, this is a very complex surgery, and complications are common. We recommend that you prepare yourself — both emotionally and practically — for the possibility of complications. Our team includes plastic surgeons and reconstructive urologists to help you with anything that may arise. We do everything we can to ensure your surgery and recovery are as smooth as possible.

#### Flap loss

Flap loss can occur when all or part of the flap dies due to poor blood flow. Total flap loss is rare but is a risk that patients should know about. If part of the flap dies, the affected portion can be removed by your surgeon, and the phallus can be reconstructed immediately or at a later date. Therefore, proper phallus position and body position are vital during this time to ensure the best possible blood flow to the phallus.

#### Surgical site infection

Infection is possible at the phalloplasty site as well as the flap and skin graft donor sites. Signs of infection generally include spreading redness, pus discharge, odor, swelling, warmth to touch, red streaking or fever. If you are concerned about a possible infection, contact our office immediately via MyChart during office hours. Outside office hours, call the number provided in your instructions.

#### Hematoma

Hematoma is a collection of blood. Surgical site hematomas occur from a blood vessel that is actively bleeding following a surgery. Sometimes the blood vessels stop bleeding, and no intervention is warranted. Other times the patient may need to return to the operating room to stop the blood vessel from bleeding. Hematomas are most likely to occur within the first few days following surgery.



## Skin graft loss

The flap donor site (forearm or thigh) is covered with a thin layer of skin taken from the thigh (opposite thigh if using a thigh-based flap). This skin will survive by adhering and getting oxygen from the wound bed underneath. If the graft does not attach, then some areas may not survive and will need to be removed. Small areas will fill in as the wound heals. If a large area is lost, a repeat skin graft may be needed to cover the region.

## Pain

Pain following surgery is inevitable, and everyone's experience is unique. Patients feel different levels and types of pain for varying lengths of time. Patients may report pain at some surgical areas and none at others. While most pain subsides over the first 4–6 weeks following each stage, minor discomfort or pain is normal even beyond the normal healing period. It usually subsides within a year after surgery.

While uncommon, it is possible for patients to have long-term chronic pain. Persistent pain — especially a burning or shocking type of pain — can be caused by types of nerve pain at the surgical site. This pain can occur both at the donor sites (thigh and forearm) as well as the groin. If you have persistent pain, let your surgical team know.

There are both therapy and surgical options available to manage these complications. OHSU has unique expertise in the management of chronic nerve pain and nerve issues related to phalloplasty.

## Arm or leg weakness/stiffness

It is possible to experience weakness or decreased flexibility in your hand, forearm or leg due to the amount of tissue taken from the thigh or forearm to create the phallus. Hand therapy and physical therapy can help you regain your strength and range of motion. Permanent weakness is possible.

## Implant-related complications

Implants have potential for several complications. They are foreign objects in the body and therefore have the potential to become infected. It is also possible for them to become dislodged from the attachment to the bone, for their parts to malfunction and no longer work, or for the implant to push through the skin over time. Some patients also experience chronic or situational pain from the implants (both testicular and erectile device), such as during intercourse or when riding a bike. Testicular implants can move to an undesirable location in the scrotum. Any of these complications could lead to implant removal and possible replacement.

## Post-void dribble

If you have a new penile urethra, it is very common to experience post-void dribble. This happens when a small amount of urine remains in the new urethra following urination and some urine dribbles from the phallus. It is a difficult issue to treat surgically; however, the patient can help remove the retained urine by gently pressing along the outside of the urethra (milking).

## Urinary spray

If you have a new urethra, you may experience an irregular urinary stream or spray, making it challenging to stand during urination. Urinary spray can improve over several months as the surgical sites heal, but it can also be an ongoing issue. Your surgeon may be able to address this issue by adjusting the urethral opening.

## Fistula

As your wounds heal, you may develop an unwanted opening, called a fistula, in your new urethra, causing urine to leak. Fistulas sometimes heal on their own, but if they don't, we need to close them in outpatient surgery 3–4 months later. After the procedure, you will have a urinary catheter for 10–14 days.

## Stricture

A stricture is a narrowing of the urethra at any site within the phalloplasty, making it difficult or impossible to urinate. Recurrent urinary infections can be a sign of a stricture. Fixing a stricture may include:

- A suprapubic catheter to drain your bladder if you can't urinate.
- Cutting out a short segment of your urethra and closing it directly.
- If the stricture is in a longer segment, you may need two stages of surgery:
  - Stage 1: We take some tissue from inside your mouth to create a new section of urethra. This area is left open, and you will urinate sitting down.
  - Stage 2: A few months later this area is then closed over a catheter. You will have a suprapubic catheter for a few weeks to drain your bladder while it heals.

## Mucocele/vaginal remnant

If you have a vaginectomy, rarely vaginal tissue can be left behind, and you may develop a collection of fluid and cells in your pelvis. Sometimes this connects to your urethra. This is usually diagnosed by radiographic exams and may require a second surgery to remove that tissue.

## Narrow urethral opening

The meatus (urethral opening) can narrow and may cause urinary spray. Usually, meatal revisions can be done in the clinic without need for a urinary catheter.

## Perineal pit

The area above the anus can form a small pit that can have hygiene implications. We may need to correct it with surgery.

## Regret and grief after gender-affirming surgery

Temporary forms of regret or grief are very common and something we can assist you with through our mental health team. Long-term regret can stem from surgical complications, unmet expectations or even regret related to transition goals and gender. Please review our universal risk statement on this topic in Appendix A.

## Sensation and sexual activity after surgery

There has not been thorough research about what types and strength of sensation you can expect to have in your new phallus. How much sensation you experience depends on several factors, including how successful the surgery was at connecting nerves, how well your nerves regenerate (grow) and how well the brain integrates the phallus and interprets sensory stimuli.

At OHSU, we routinely hook up two nerves in the phalloplasty. We also include electrical nerve stimulation to increase the efficiency of nerve regeneration. Despite this, nerves regenerate at a rate of about 1 millimeter every day or roughly 1 inch per month. It often takes at least 6 months for the nerve fibers to reach the base of the phallus and much longer to reach the tip. Your sensation will continue to evolve and improve over years. You might ultimately have partial sensation, where some parts of the phallus have more feeling, and some have less. Age and certain medications can affect nerve regeneration.

With phalloplasty surgery, we are in effect performing “nerve transfers” in order to restore sensation. This means we are transferring the function of one nerve to another. For this to work, sensory reeducation in the form of “nerve rehabilitation” is critical. There are many things you can do before, during and after recovery from surgery to optimize your chances of successful and meaningful sensation in the phallus. At OHSU, we have created a **sensory training and nerve rehab protocol** following phalloplasty.

Dr. Peters led the creation of this protocol with specialists and therapists experienced in nerve rehabilitation, sensory reeducation, sex therapy, pelvic floor therapy and people who have had phalloplasty. The protocol’s goal is to improve the penis’ sensitivity to touch and sexual stimulation. For those interested in participating, a copy of the protocol will be provided close to the time

of surgery. Participation is voluntary and an individual choice.

Orgasm after surgery is almost always possible, but it may take longer or feel different. A small percentage of patients may experience orgasm just from stimulating the phallus; however, this is not a guarantee. Most patients will have to stimulate the buried clitoris to achieve orgasm. We hope you will become less reliant on this type of stimulation as time and nerve rehab progresses. If you can easily and quickly have an orgasm now, you are more likely to be able to orgasm after surgery. If you choose to have the clitoris buried as part of perineal masculinization, you will still be able to stimulate it indirectly.

The forearm donor site is the most reliable option to experience postoperative sensation. The thigh donor site might only get partial sensation. If sensation is the most important goal for you, consider the forearm donor site.

## Sexual activity

To decrease the risk of wound separation or infection, it is prudent to avoid sexual activity (including manual masturbation) for at least 8 weeks after surgery and until all wounds are completely healed. Masturbation using vibrating devices with gentle pressure can be used as early as 4 weeks postoperatively. After erectile device placement, you will have to wait 4 months prior to engaging in penetrative sexual intercourse.

These surgeries change the appearance and function of your genitals. It may take you a while to adjust, both mentally and sexually. Over time, you will learn how to best stimulate your erogenous tissue in a new, less accessible location. Please feel free to ask our team anything about this important and sensitive topic. We want you to know that no question is off limits. We are comfortable with discussing your sexual health and well-being.

## Section 3:

### Preparing for surgery

Phalloplasty is an extraordinarily complicated procedure, involving multiple steps and surgeries. A large part of its success depends on your preparedness. This means being in the best possible physical and mental health before the surgery.

Above all else, it is critical to have reasonable expectations about what is possible for your body and what your surgeon can realistically accomplish. We recommend you:

- **Talk with a mental health professional** with an understanding of gender care to help navigate this challenging and exciting period of your life.
- **Connect with peers** who have been through this surgery for support. Please keep in mind that each person's surgical plan and experience are unique. Information shared on non-OHSU forums may not be relevant to your surgery. Due to patient privacy laws, we never comment on another patient's specific issues. We are happy to clarify anything related to your individual care.

This guide will help you meet all the presurgery requirements, prepare for surgery and plan for your recovery. We are here to help make sure your surgery is successful. We will check in with you regularly in person and on the phone to see how you're doing and provide support.







## Support and recovery plan worksheet

We hope this worksheet helps you prepare for recovery. You will receive a copy of this form to turn in.

Your name: \_\_\_\_\_ Date of birth: \_\_\_\_\_

**HOUSING:** You will need to have stable housing close to Portland for the first 6 weeks after surgery. This should be a place that is physically and emotionally safe. Ideally it has a walk-in shower (not required) and not too many stairs.

Do you currently have stable, safe housing? ☐ Yes ☐ No

What is your plan for stable, safe housing during recovery from surgery?

- ☐ Your own home
- ☐ A friend or family member's home
- ☐ Hotel/Airbnb/apartment rental
- ☐ Rood Family Pavilion (*your reservation has been accepted and confirmed*)
- ☐ Other (please specify): \_\_\_\_\_

**SUPPORT:** You will need to have someone who is physically available at all times to help you with day-to-day activities for 3 weeks after you leave the hospital. After that, a backup caregiver needs to be available (not necessarily present) for 2 more weeks (in case of complications/prolonged healing).

Do you have a "support person or team" – someone(s) to assist you in aftercare? ☐ Yes ☐ No

Is your support person(s) available to be with you all the time for the first 3 weeks?

- ☐ Yes ☐ No

Please check all the ways your support person(s) is prepared for your recovery:

- ☐ **Transportation:** Take you to and pick you up from the hospital, help you get to follow-up appointments
- ☐ **Food:** Grocery shopping, meal preparation, food cleanup
- ☐ **Hygiene/wound care:** Someone to help you to the bathroom and with showering and simple wound care
- ☐ **Supplies/errands:** Picking up supplies such as medications or other household items
- ☐ **Household chores:** Laundry, housecleaning, taking out the garbage, checking the mail
- ☐ **Dependent care:** Someone to help with any responsibilities you have to provide childcare, pet care or other caregiver duties
- ☐ **Companionship:** Someone to keep you company so you are not isolated or lonely during recovery

Please provide the contact information for your support(s):

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

You should have a backup support in case the person named above is unavailable to assist you as planned. Please provide the contact information for your backup support person(s):

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

**FINANCIAL PLANNING:** If you are working, are you able to take up to 4 weeks, or possibly more, time off from work to recover from surgery?

☐ Yes ☐ No ☐ Unsure

Please check all the ways you are financially prepared during recovery by indicating you have money set aside or expect your usual income for:

☐ Rent/mortgage

☐ Food

☐ Phone and other utilities

☐ Medication/medical supplies

☐ Transportation

☐ Other bills (credit cards, insurance premiums, school loans, etc.)

**SOCIAL WORK SUPPORT:** Are you interested in speaking with a Transgender Health Program social worker to assist with any of the following?

☐ Housing

☐ Social support

☐ Finances

☐ Mental health

☐ Other (please specify): \_\_\_\_\_

Please return this worksheet to us via OHSU MyChart or email [pls@ohsu.edu](mailto:pls@ohsu.edu).

## Finding a mental health therapist

The Transgender Health Program does not consider being transgender or gender-nonconforming a disorder or diagnosis. Instead, we recognize that mental health professionals can offer support and guidance. They can also provide the letters of support needed for some surgeries.

**Transgender Health Program services:** The THP offers psychological services for shorter-term assessment and support, including providing letters of support. We can also help you find a therapist in the community if you're interested in ongoing care.

**Searchable database:** Psychology Today maintains a Find a Therapist tool at [psychologytoday.com/us/therapists](https://psychologytoday.com/us/therapists). You can click on your state and filter by ZIP code, specialty area (such as transgender care) and type of insurance, such as the Oregon Health Plan.



## Letters of support

### Why do we require a letter of support?

We follow the World Professional Association for Transgender Health (WPATH) Standards of Care ([wpath.org/publications/soc](http://wpath.org/publications/soc)) guidelines and adhere to the requirements of your health plan. This often requires that you have letters in support of your transition surgery written by mental health providers before scheduling surgery. Insurance also requires these letters. Many insurance companies will not cover the cost of surgery without them. Your letter(s) should be written by a mental health professional who knows you well.

The requirement for letters of support is not meant to be a barrier or burden, or to be stigmatizing. We understand it's an insurance requirement. There may be some variability in the number of letters required based on your specific health plan. We also see the value of making sure people have considered all the implications of a major, irreversible surgery that affects their identity, physical health, sexual function and fertility. Also, surgery and recovery from surgery are parts of an extremely stressful time. It's important to have a relationship with someone who can help with that stress if needed.

### Do the letters ever expire?

Insurance often requires that at least one letter be dated within 1 year of surgery. Current waiting times for surgery mean you may need one or both letters updated about 3 months before surgery. We apologize for any inconvenience. We are always working to improve this process and to reduce waiting times.

### Who can write the letters?

Only a licensed and qualified mental health provider can write the letters of support. Your primary care provider cannot write the letter. Here are some examples of mental health professionals who can write your letter:

- Licensed clinical social worker (LCSW or LICSW)
- Licensed marriage and family therapist (MFT)
- Licensed social work associate & independent clinical (LSWAIC)
- Licensed professional counselor (LPC)
- Clinical psychologist (Ph.D. or Psy.D.)

### **What must be included in the letters?**

WPATH recommends the letters contain:

1. The client's general identifying characteristics.
2. Results of the client's psychosocial assessment, including any diagnoses.
3. What surgery or surgeries the patient is seeking.
4. How long the patient has been on hormone therapy and living in a gender role.
5. The duration of the referring health professional's relationship with the client, including the type of evaluation and therapy or counseling to date.
6. An explanation that the criteria for surgery have been met, and a brief description of the clinical rationale for supporting the patient's request for surgery.
7. A statement that the patient has given informed consent.
8. A statement that the referring health professional is available for coordination of care and welcomes a phone call to establish this.

Make sure your certified mental health professional is familiar with the WPATH Standards of Care and includes all the above information. Consider giving the person these guidelines to help in writing your letter.

### **Is there a template that my mental health provider can use to write the letter?**

Yes! We made a template that your mental health professional can fill out and mail or fax to us. Find it on the THP website at [ohsu.edu/transgender-health /patient-guide-gender-affirming-care](https://ohsu.edu/transgender-health/patient-guide-gender-affirming-care) under "letters of support".

### **Where do I or my mental health professional send the letters?**

Please mail, fax or email a PDF of the **signed** letters to:

OHSU Department of Plastic and Reconstructive Surgery  
3303 S. Bond Ave.  
Portland, OR 97239  
Phone: 503-494-6687  
Fax: 503-494-1717  
Email: [pls@ohsu.edu](mailto:pls@ohsu.edu)



### Why is it important to stop smoking?

Nicotine is a powerful drug that constricts your blood vessels and decreases blood flow to the tissues we are operating on. This can cause complications, including poor wound healing, delayed wound healing and graft failure. Research shows that the risk of surgery failure increases 10 times for people who smoke even one cigarette a day.



## Nicotine cessation, diabetes control and weight loss

### Stopping smoking/nicotine

#### How long do I need to be nicotine free?

We require that people not smoke or use any nicotine or tobacco products for at least 10 weeks before surgery.

#### What about nicotine patches, gum, e-cigarettes, etc.?

All these products are a healthier alternative to smoking tobacco, but they all contain nicotine. They can have a similarly negative effect on wound healing. Therefore, we require that you not consume any of these products for 10 weeks before surgery. Further, they will produce a positive nicotine test which may lead to cancellation of your surgery.

#### How do you test for nicotine?

You will take a blood test before surgery to make sure you are successful in stopping nicotine in the months before surgery. This test can detect nicotine use during the previous several weeks. Secondhand smoke can also cause you to test positive, so it's important to avoid it for 10 weeks before surgery. Talk to your primary care provider if you need assistance with nicotine cessation.

Consider the Oregon Tobacco Quit Line, open 24/7, at 1-800-QUIT-NOW (800-784-8669) or [quitnow.net/oregon](http://quitnow.net/oregon). These resources may refer to tobacco, but they may help with quitting nicotine in any form.

#### What about marijuana?

If you use cannabis, please do not smoke for at least 4 weeks before surgery. That will help you avoid the carbon monoxide poisoning from inhaling any type of smoke. It is better to use edibles and other forms of cannabis. Though no studies show cannabis use is safe in surgical recovery, especially when combined with narcotic pain medication, we do not prohibit it or test for it. Please be cautious.

## Controlling diabetes

### Why is it important?

People with diabetes may have greater risk of poor healing and infections, especially if their diabetes is not well controlled. Your primary care provider or endocrinologist can help you make sure your diabetes is under control before surgery.

### What are the requirements for surgery?

A test called Hemoglobin A1C (HbA1c) can help show what your blood sugar control has been like over the past 3 months. At the time of surgery, your HbA1c should ideally be 6.5 or less.

## Weight loss

### Why is my weight important?

We understand that bodies come in all shapes and sizes. You don't have to be skinny to be healthy. However, for phalloplasty the surgery involves very small blood vessels and nerves that are being connected under the microscope. Further, the fat layer under the skin is being incorporated into the phallus. So even individuals that are not significantly overweight may need to lose weight to make the surgery possible or less risky.

### What is the cutoff?

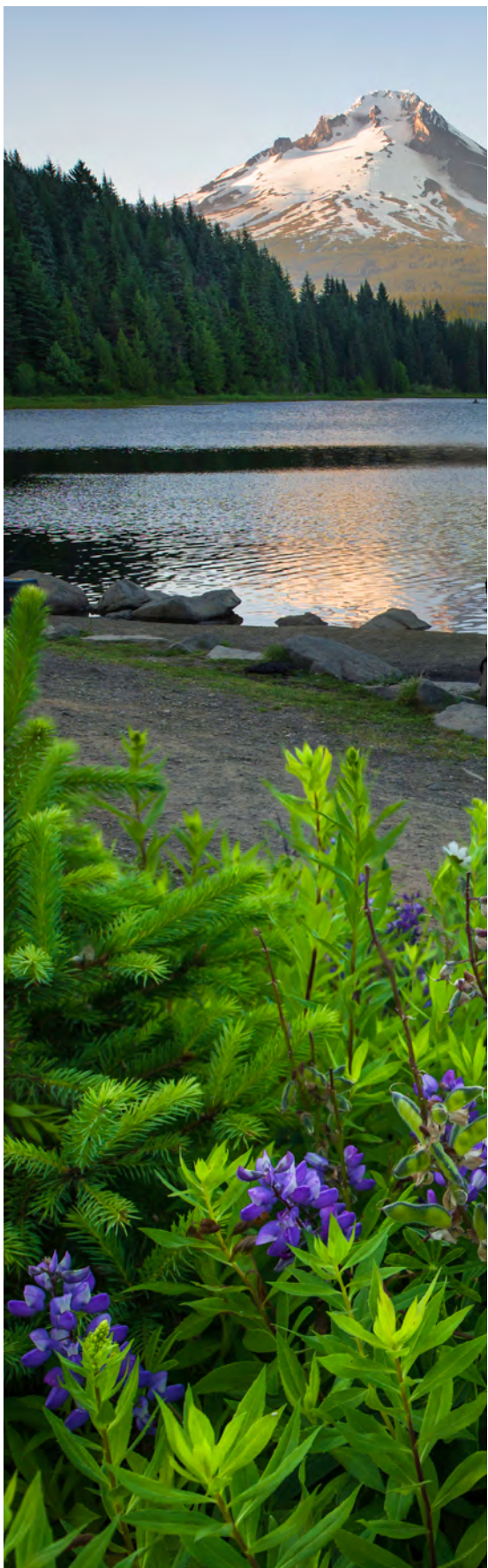
Body mass index (BMI) is calculated based on a ratio between your height and weight. We believe individual variations in how body fat is distributed are more important than BMI.

Body mass index (BMI) of less than 30 is ideal. More than 34 most likely will exclude you from surgery. BMI is, however, not the determining factor, which is instead the fat and skin distribution. You can use OHSU's BMI calculator at [apps.ohsu.edu/health/body-mass-index](https://apps.ohsu.edu/health/body-mass-index).

### What resources are available to help me lose weight?

Contact your primary care provider to discuss healthy ways to lose weight. Your provider might be able to refer you to a nutritionist, dietitian or gym. Some prescriptions can help with weight loss when used with exercise and a healthy diet. We like to reserve weight loss surgery for a last resort because certain abdominal surgeries can make our surgery more difficult. But we have recommended that patients look into this option. We have operated on patients after successful weight loss surgery.





## Hair removal guide and FAQ

### Why do I need hair removal for phalloplasty?

You may need electrolysis or laser treatment to permanently remove hair on the donor site (forearm or thigh) used to make the urethra. Hair remaining within the urethra can lead to significant urologic complications, such as urethral stones and recurrent infections.

Many people also want to remove hair from the outside of the phallus, but it's not required. This can be done before or after your first surgery.

Your surgeon will determine whether and where you need hair removal.

### When should I start hair removal?

You can start hair removal as soon as your surgeon confirms the donor site and specific area that needs to be free from hair. If you use the thigh this happens after you get a CT scan of your legs.

Hair removal can take 6–18 months. Treatments need to be spaced apart due to hair growth cycles. This timeline also accounts for potential difficulty scheduling hair removal treatments with busy providers.

It must be complete at least 3 months prior to the scheduled surgery. The donor region ideally needs to be examined in person to make sure it is free of hair. A photo can be used to demonstrate hair clearance if in-person examination is not possible.

If you want to remove hair from the outside of your new phallus, you can do this on the donor site before stage 1 surgery, or on your new phallus after the surgery. Hair removal on the phallus is less painful within the first 8 months after surgery, before your nerves have a chance to fully regrow.

**How do I know when I am done with hair removal?**

It is impossible for us to determine at any one point if your hair removal will be permanent. This is because each strand of hair is in a different stage of growth. Some hairs may be inactive, or not growing now, then start to grow a month later. The best approach for a good result is to discuss this with your electrolysis or laser provider. Go through several cycles with the area completely cleared followed by waiting 4–6 weeks. Then wait 3–6 months to see if you have significant regrowth. If you are doing hair removal prior to surgery, you must stop 2 weeks prior to surgery, and can resume any hair removal on the phallus no sooner than 2 months after surgery.

**Where can I get hair removed?**

We do not specifically endorse any providers outside the OHSU Transgender Health Program. A list of hair removal professionals is available on our website.

**How do I get my insurance to cover the cost?**

Your insurance may cover hair removal but will likely require a letter of medical necessity or referral by a provider. If required, this will be provided by your surgeon's office. We recommend you work with your health plan and hair removal provider to get updated information about scheduling hair removal.

**What about medical tattooing?**

Medical tattooing can add to the aesthetic result. The skin color on your forearm is often lighter than on a penis. You can tattoo your new phallus to make it darker and add details such as small blue veins.

Tattooing can be done 12 months after surgery. If you plan on implanting an erectile device, it is best to have the tattooing done before this third stage of surgery.

## What's the difference between electrolysis and laser, and how do I know which is best for me?

	ELECTROLYSIS	LASER
<b>How it works</b>	Uses electricity delivered to hair follicles to stop new hair from growing.	Uses heat and light to damage the hair follicles.
<b>Will it work for me?</b>	Works on all skin types and hair colors.	Since laser targets the pigment in the hair, it typically works best for people with dark hair and light skin. It's not as effective on blond, gray or red hair.
<b>Is it permanent?</b>	Yes.	Not always; laser generally makes the hair lighter and thinner, but people often have follow-up treatments or even change to electrolysis.
<b>How long does it take?</b>	Electrolysis sessions take longer because each follicle must be treated individually.	Laser sessions are relatively quick because the laser targets a general area.
<b>Cost comparison</b>	Costs more than laser.	Costs less than electrolysis.
<b>Pain</b>	Typically bearable, but the groin is a sensitive area, and everyone has a different tolerance.	Typically more painful, but sessions don't last as long.
<b>Preparation required</b>	Hair needs to be unshaven and about 1 millimeter long.	Must shave before each session.

## Section 4:

### Planning for recovery



#### Caregiver requirements

##### Why do I need a caregiver?

You need to have a safe and reliable plan for recovery after surgery. Phalloplasty requires a team both inside and outside the hospital so that you can heal well. Support during this process is critical to your success. Some patients may choose to have multiple caregivers to lessen the work for any single caregiver.

##### How long do they need to help?

Your caregiver should be present at all times for 3 weeks after hospital discharge. After that, your caregiver should be available (not necessarily present) 24 hours a day for 2 more weeks. “Being available” means coming to help you within 30 minutes when needed.

##### What is my caregiver's role?

**Hospital support:** Your caregiver should be with you as much as possible during your hospital stay. This will help your caregiver learn from the nurses and surgical team on how to care for you once you leave the hospital. Your caregiver will need to feel comfortable assisting you with genital hygiene care and surgical wound dressing changes. We strongly recommend that your caregiver participate in the phalloplasty patient education class to learn how to best prepare for their role.

**Home support:** You will need your caregiver to help you get to and from the bathroom and shower, complete dressing changes for the phallus and donor site, and help with food, transportation, household chores and errands. You may also need help with caring for any children or pets.

**Emotional support:** You will need a lot of emotional support, especially for the 4 weeks of lying flat most of the time after stage 1. Your primary caregiver will need emotional support as well. Think about what coping strategies you can use during this time.

### **Who would be the best caregiver?**

This type of caregiving often relies on an intimate relationship to discuss care of your genitals. We recommend asking a family member, partner/spouse or long-term close friend. In our experience, well-meaning colleagues and acquaintances are not consistently reliable or prepared for the involvement in this type of caregiving.

Caregiving is challenging, and it is best to have multiple people ready to help you. You need a backup plan in case your primary caregiver becomes sick or otherwise unavailable. It can also help to discuss the caregiver's needs beforehand. This period can add strain to your relationship and discussing this openly is important.

### **Financial planning**

You should prepare to be out of work for up to 6–8 weeks while you heal from your first surgery. The length of time depends on the pace of your recovery and the nature of your job. You may be able to return sooner if you can work from home.

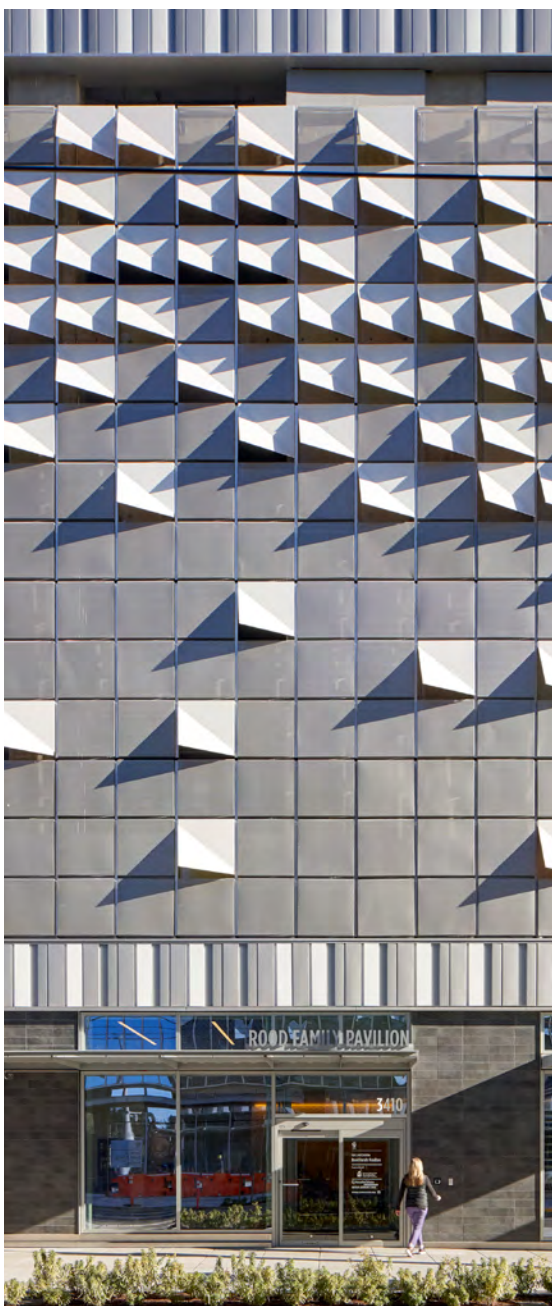
Plan for how you will pay for:

- Housing
- Utilities
- Groceries
- Medical supplies and medications
- Other bills and expenses

We also recommend that you:

- Make a backup plan, in case you need more time to heal because of complications.
- Find out if you are eligible for family medical leave through your employer. Get your paperwork in early.





## Housing

If you live outside of driving distance (more than 4 hours) from Portland, we recommend you arrange local housing for at least 3 weeks following hospital discharge. Staying close to OHSU ensures you can see your care team urgently if needed. You may need to stay in Portland longer than 3 weeks, depending on your recovery.

A social worker in the Transgender Health Program can talk with you about your housing options, including:

- **Rood Family Pavilion:** This five-story OHSU guest house on the South Waterfront offers 38 suites for adult patients and their families. Funding is available for qualified families. Details are at [ohsu.edu/health/rood-family-pavilion](https://ohsu.edu/health/rood-family-pavilion).
- **Hotels:** A number of hotels near the hospital offer discounted rates to OHSU patients and families.
- **Short-term apartment rentals**, such as Airbnb.

## Physical restrictions after surgery

After your first stage of surgery, you are not allowed to sit for 4 weeks, except to use the toilet. You can stand or lie flat. We recommend finding ways to function within those limits before surgery, while you are feeling well.

For instance, you will need to:

- Move from lying down to standing up while bending in your hips as little as possible.
- Pull yourself up with only one arm, if your other arm is healing from a tissue donation.

## Adapting to change

It is critical that you have a solid and safe plan for recovery, even if it means delaying your planned surgery. We understand circumstances may change in the time leading up to your surgery.

Please let us know right away of any such changes, so we can help you determine if and how they would impact your surgery or recovery plan. Some unexpected changes may include:

- Insurance status.
- Moving or loss of housing.
- Loss of income and financial concerns.
- A change of caregiver(s).
- A new health condition.

Our patients who delayed their surgery due to unforeseen circumstances were grateful they did so. This is especially true given the challenges associated with this surgery and its recovery.

We understand the importance and urgency of this surgery. We also know your success hinges on being well prepared. Remember, this is a lifelong investment in your health. Optimal preparation can improve your chances of positive physical and mental health outcomes.

## Supplies to get before surgery

We recommend you buy the following medical supplies prior to surgery.

To reduce the financial burden, you may choose to start ordering supplies months ahead of time and purchasing just a few items at a time. You may need to replenish your stock of supplies throughout the recovery process.

Ordering online is often easiest. You also can contact your insurance company to see if they are contracted with a medical supply pharmacy to obtain supplies. Supplies not used during stage 1 can often be used during stage 2.

**Roll fluff gauze (Kerlix):** This is helpful to put gauze on the surgical site as it heals. It keeps the wound clean and dry and prevents infection. You will use about 4–5 rolls per day, so we advise starting with at least 150 rolls for stage 1.

**Medicated gauze (Xeroform):** This is very useful for dressing the donor site. We advise buying the 5" x 9" size. You should start with about 75 pieces.

**Sterile cotton swabs:** These medical-grade Q-tips are useful for cleaning small, tight areas of your wounds, such as the penile urethra and labial folds. They are sterile, 6 inches long and packaged in 1–2 swab packs. We advise starting with at least 100 swabs.

**Loose pants and slip-on shoes:** Getting dressed will be tough, especially when there is a bulky dressing around the phallus. It will be helpful to have pants that are loose and easy to put on. And since bending at the hip is restricted, slip-on shoes with good grips are best.

**Ibuprofen, Tylenol, Vaseline (or bacitracin/Neosporin), hydrogen peroxide:** All can be found at your local drugstore.

**Removable showerhead:** It makes bathing and cleaning your surgical sites much easier.

**Hand mirror:** It can help you see the site.

**Testosterone:** If you are taking testosterone, make sure to bring your medication with you for the duration of 6 weeks.



## Packing your bag for the hospital

Here's a list of things you'll need during your hospital stay. Remember that you will be in bed for 5 days after surgery. That may sound nice, but it can be uncomfortable and boring. You will get regular meals you can order from our cafeteria, but you can bring snacks for between meals.

### What to bring:

- ☐ ID
- ☐ Paperwork
- ☐ Payment method
- ☐ Comfortable, loose-fitting, low-hassle clothes
- ☐ Items that make you comfortable
- ☐ Favorite blanket, pillow, aromatherapy, eye pillow, massager
- ☐ Items that keep you entertained
- ☐ Games, music, books, puzzles
- ☐ Chargers for electronics
- ☐ Snacks

### What not to bring:

- ☒ Valuables, including jewelry

## Restrictions before surgery

- No food or drink starting at midnight the night before surgery. It's OK to take small sips of water with medications.
- No blood draws on your donor arm, if you have a forearm donor site. If you did have one, do not worry but it is better to avoid this arm altogether. The same is true after surgery.
- Avoid strenuous leg exercise (e.g., long hike) for 2–3 days before surgery if you have a thigh donor site.



## Section 5:

### Your hospital stay and stages of surgery

#### Hospital welcome and tip sheet

Welcome to the surgical unit at OHSU. Our patient population consists of kidney and liver transplant, urology and reconstructive surgery patients. We also care for all gender-affirming surgery patients who need to stay in the hospital after surgery.

#### Who's who?

**Providers:** These are your surgeons, surgical residents, physician assistants and nurse practitioners. They perform your surgery and create the pathway for your recovery. They visit you daily to answer your questions, see how you are doing and make changes to your plan, if needed.

**Registered nurses:** These are the people you see the most during your stay. They bring your medications, monitor your recovery and help you stay comfortable. They check in on you throughout the day and night. The more we know about how you feel, the better we can help you. The nurses can answer questions about your plan and recovery.

**Certified nursing assistants:** Nursing assistants check your vital signs (temperature, blood pressure, heart rate, etc.) periodically. They check on you throughout the day and night. You can ask them how to get comfortable, for water or snacks, or for help if you need to go to the bathroom.

**Room service attendants:** These people bring your food and take away your tray.

#### Medications

You will have two sets of medications:

**Scheduled:** Your providers order these medications to be given on a schedule. Your nurse will bring them to you at a set time each day (typically 9 a.m. and 9 p.m.).

**As needed:** These medications, also called PRNs, are given to you when needed to make you more comfortable — for example, if you have breakthrough pain, sore throat, gas pain, bladder spasms, constipation or heartburn. If you have any of these symptoms, tell your nurses and they can give you a medication that should help.

## Eating

It's important to eat what you have an appetite for. We also have a few recommendations:

- Protein is important for healing. Protein can be found in meat such as chicken, fish, pork and beef. Nuts, whole grains, beans and legumes are also good sources.
- Since you are in bed and not up moving around like normal, your bowels will slow down. Stay away from heavier foods (fried, greasy, etc.) because they are harder to digest and may lead to gas pain.

To order food, call **4-1111** from your room phone.

Delivery usually takes about an hour, so call before you get too hungry.

## Toileting

**Bowel movements:** You will use a bedpan to have a bowel movement until you recover enough to use the restroom. This can be intimidating for some people, but it happens in hospitals all the time, so don't worry!

**What about urinating?** You will have a catheter (tube) draining your bladder, so you shouldn't feel the need to pee. If you feel like you have to pee, the nurse may have to adjust your catheter so the urine flows more easily.

**Using the toilet:** Starting on recovery day 4, you may use the restroom with help from nurses. You may sit on the toilet but should not bend at the waist for more than 2 minutes. Lean back and stretch your legs when possible.

## Guests

There are open visiting hours, and your caregiver can remain overnight. Not all rooms are equipped with recliner chairs or cots, but these can be requested and brought to your room, as available. Your hospital stay will be approximately 5–10 days and will depend on your recovery and needs.

## If you need help

You will have a button you can press to call us. Don't be afraid to call if you need anything.

## Stage 1: Creating your phallus

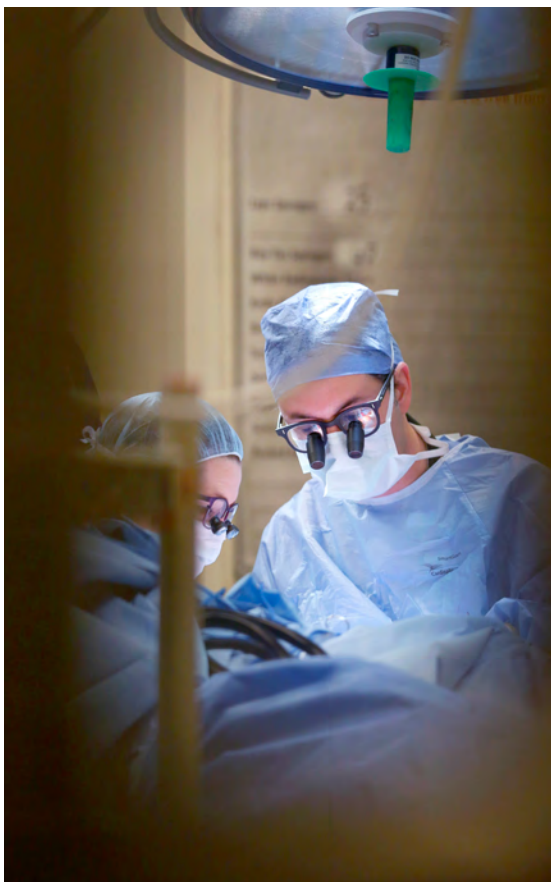
This is a general guide of what to expect following the first stage of your phalloplasty. Your experience and healing may be different. This schedule, including your medications, may vary based on your unique medical needs.



### Day of surgery — before surgery

- **Do not eat or drink** after midnight.
- **Arrive:** The operating room will let you know at least 1–3 days before surgery what time to arrive, likely by 5:30 a.m. or 6:30 a.m.
- **Check in:** Go first to the main lobby of the hospital for admitting procedures and paperwork. You will then proceed to the preoperative unit (6A). Upon check-in, you will be provided a gown, socks and a blanket. You will change and be offered a bag labeled with your name for you to store your belongings.
- **Meet your surgery team:** Team members — including your nurses, anesthesiologist and surgical team — will come introduce themselves and ask you questions. Some of these questions will feel repetitive. This is by design to promote safety and prevent errors.
- **IV in arm:** You will receive an intravenous catheter through which we administer some relaxation medicine before you go to the operating room.
- **Anesthesia:** In the operating room, the anesthesiologist will talk you through the process and you will go soundly to sleep.





## Day of surgery — after surgery

### When your surgery is complete:

- Your surgeon will talk with your contact person.
- You will spend 2–3 hours in the post-anesthesia care unit :
  - Staff will keep a close eye to make sure you are safely recovering from anesthesia.
  - You might feel nauseated, elated, groggy, tearful, hungry or thirsty. These sensations are expected and normal.
- You move from post-anesthesia care to a hospital room:
  - The inpatient unit is where most of our patients recovering from gender-affirming surgeries stay.
  - The staff is trained to provide culturally competent and gender-affirming care. They are very familiar with the recovery process from these procedures.

### What's on my body?

- Urinary (Foley) catheter — a tube to drain urine.
- “Penis cloud” — dressing on the surgical area. You will wear mesh underwear with a hole and Kerlix (long fluffy gauze) around your phallus. Your phallus stays 90 degrees straight up with the help of the Kerlix and mesh underwear.
- Donor site dressings: The thigh donor site will have a VAC dressing with a negative pressure device that aids in wound healing. The forearm donor site will have a VAC dressing if Integra was placed. If the forearm was immediately skin grafted, you will have a plaster splint.
- A drain that comes out your thigh but runs along the entire surgical site, taking extra blood and fluid out of your body and collecting it in a bag.
- Sutures (stitches) on the vulva. The outer labia are sutured together for 3–4 days to prevent swelling.
- Bair Hugger™ (medical warming blanket) on your lap. You will be very, very warm!
- Sequential compression devices on your legs. Cuffs fill with air and squeeze your legs to increase blood flow and prevent blood clots.
- IV in your arm.
- Heart monitor.
- Some patients may also have the following:
  - Oxygen — through a mask or little tube under your nose.
  - Cook Doppler — This is a machine that makes an ocean sound and is connected to the vein going to your phallus (rarely used with thigh donor sites).

**What to expect:**

- Your nurse will check the arterial blood flow in your phallus every hour with the doppler machine. At the same time, they will also massage the phallus.
- Why is the phallus massaged? To prevent phallic compartment syndrome. Increase in swelling can lead to firmness which can affect the blood supply. Sometimes we must release some sutures to release the pressure. Massaging can help prevent this.
- You will be on bedrest on your back. This is necessary to keep the phallus at 90 degrees straight up. You must not raise the head of your bed beyond 10 degrees.
- Medications through your IV:
  - Narcotics: You may be able to press a button to control how much narcotic pain medication you get through your IV. This is called patient-controlled analgesia (PCA).
  - Tylenol every 6 hours.
  - Gabapentin every 8 hours.
  - Toradol every 6 hours.
  - Stool softeners.
  - Antibiotics.
- No food or drink: You will only get IV fluids during this initial postoperative period.
- If you have a forearm donor site, keep your hand elevated on pillows.
- The residents and medical students usually round in the morning and in the evening. You will also see the PA, surgeon or fellow during the day. Your surgeon will be available if there are issues that arise, but you may not see them every day.





### Day 1 after surgery

- Doppler check of phallus and massage will be done every 2 hours, starting 24 hours after your surgery.
- In the morning, your surgery team will decide if you can eat a regular diet.
- If you have Integra on a forearm donor site, Occupational Therapy will make a splint during your hospital stay. (You will already have a splint if you had a skin graft without Integra.)
- IV fluids and IV medications usually stop today. You will start taking all medication by mouth. If you are experiencing breakthrough pain, you may talk with your nurse about IV pain medications.
- Pain medication:
  - Narcotics: You will change to narcotic pain medication (oxycodone) by pills, as needed, instead of by IV. This will give you steadier, longer-lasting pain control.
  - Tylenol every 6 hours.
  - Ibuprofen (Motrin) every 6 hours.
  - Gabapentin every 8 hours.
- Other medications:
  - Stool softeners
  - Antibiotics
  - Medication to prevent blood clots (Lovenox)
- Transgender Health Program staff routinely visit postoperative patients and may see you as early as day 1. Typically, THP staff are not available after hours or on weekends.

### Day 2 after surgery

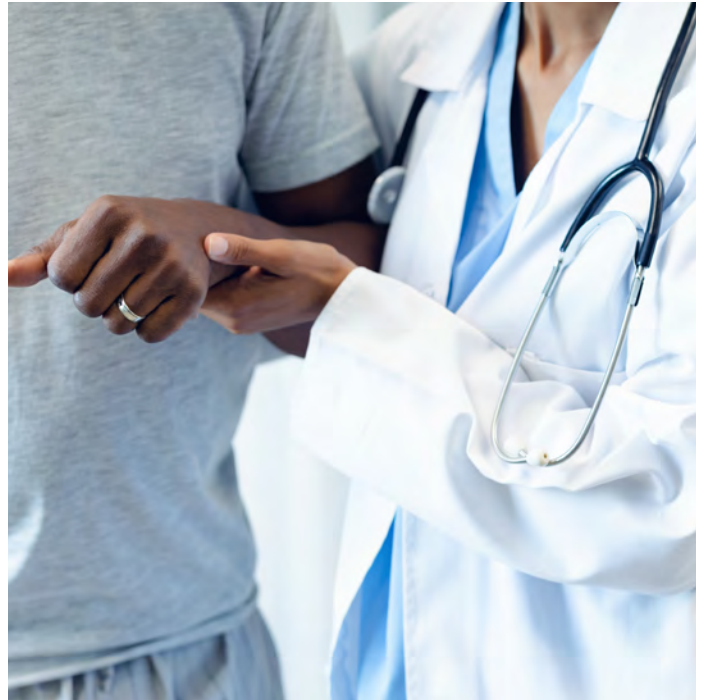
- Doppler check and phallus massage every 4 hours.
- The Bair Hugger warming blanket will be discontinued.
- Deep vein thrombosis check — An ultrasound scan will check for blood clots in your legs.
- You will stand up next to the bed with the help of the surgical team. Dizziness is very common.

### Day 3 after surgery

- The dressing packed on the vulva will be removed.
- Your surgical team or nurse will remove the Foley catheter from your bladder.
  - This is a quick process and may cause discomfort.
  - You will receive medication to help you prepare for urination without the catheter.
  - Some patients may have trouble urinating after the catheter is removed, even with medication.
  - If you can't urinate, you will need a "straight catheterization" to drain the urine. This catheter is inserted manually and only used while draining. It can be painful, and pain medication will be given prior to the insertion.
- You will get an exam of your urethra between the external labia and clitoris.

### Day 4 after surgery

- Continue to stand up with the help of the nursing team or surgical team.
- You can walk and start using the restroom with help from the nurses. When using the toilet, you can sit, but do not bend at the waist for more than 2 minutes. Lean back and stretch your legs between bowel movement pushes when possible.
- Stay in bed as much as you can. Walking will be kept at an absolute minimum to protect surgical incisions in vulnerable locations.



### Days 5–7 after surgery

- A physical therapist (PT) will visit you in the hospital to help you walk and use stairs. If you had a thigh-based flap surgery, you may need more help from the PT than if you have a forearm donor site.
- The wound VAC dressing is removed from the donor site and replaced with Xeroform (medicated gauze) and Kerlix (fluff gauze).
- If you have a skin graft, you will also get non-adhering Adaptic dressings over the wound site, which will then be covered with Kerlix. (If you have Integra, you don't need Adaptic at this step.)

## Before discharge

- You might meet with an occupational therapist (OT) about your home setup and ability to do daily activities after discharge.
- Learn about how to:
  - Clean the surgical area at home.
  - Check for infection.
  - Change your dressings.
  - Shower and use the toilet.
- You and your caregiver need to read your discharge instructions. Ask questions about anything you don't understand.
- Your caregiver should pick up your prescription medications before you leave the hospital to avoid having to make any extra stops on your way home.
- Kaiser patients should check with their regional care manager to learn where to pick up their medications and whether they can fill the prescriptions prior to surgery.
- Ensure the following appointments are set up:
  - Follow-up visit with one of your phalloplasty surgeons, typically the week after discharge.
  - If you have a forearm donor site, set up an appointment with a hand therapist (specialist occupational therapist or physical therapist). The appointment should be 10–14 days after getting your skin graft. (Remember: The skin graft is performed 2 weeks following surgery if you choose Integra.)



## After discharge

For self-care tasks for at least 4 weeks:

1. Limit walking. It is okay to go to the bathroom or kitchen, or to stand outside briefly for fresh air. Don't leave your home except for medical appointments.
2. No sitting. You can stand or lie flat. It is okay to sit to use the toilet. Lean back and straighten your hips when you can.
3. Keep your phallus at a 90-degree angle. The "phallus cloud" is made of mesh underwear and fluff gauze (Kerlix), which keeps the phallus at 90 degrees. You will be shown how to do this while in the hospital.
4. Maintain good hygiene. This includes cleaning between the labia very well. Q-tips can be good for this. Depending on your donor site and surgery you can shower the genital area when you get home.

## Support

You need 24/7 assistance for 3 weeks after leaving the hospital. After this, you may still need considerable assistance with cooking and running errands. Your mobility will be limited for a total of 6 weeks.

## Skin graft care

- The skin graft donor site on your thigh will have a yellow plastic covering on it. This covering will come off after about 5–7 days, usually before you go home from the hospital.
- After this, you only need to cover the donor site to protect your clothing. This can be done with gauze rolls (Kerlix).
- The dressing on your thigh will peel off over the course of a couple of weeks. You can trim the dressing as it lifts off. New skin will form underneath the dressing.
- The skin graft site needs to stay dry for about 2–3 weeks while it is healing.

## Showering

You can shower all areas of your body except the phalloplasty donor site. Keep the donor area dry for about 2 weeks. Handheld showers can help. Use a gentle stream of water. Soap is okay.

## Cleaning the surgical site

You will check and clean the surgical site as well as the labial folds every day. Peroxide and Q-tips are helpful for this.

## New penile urethra care

- You will swab the penile urethra with a 6-inch sterile Q-tip daily after 2 weeks. We will show you how to do this in clinic. (Order medical-grade cotton swabs.)
- We will remove the sutures at around 3 weeks after your surgery.
- At 4 weeks, you will begin passing a silicone catheter through your new penile urethra daily. This is to make sure old skin gets pushed out and that there is not a stricture developing in the urethra.
- It is NOT a dilator and does not prevent strictures.
- If you notice that passing the catheter becomes more difficult, please contact your surgeon. You may have to sleep with the catheter for a few nights and/or start using a larger catheter.

## Forearm care

- If you have a forearm donor site, your forearm will be in a splint for about 2–3 weeks after your skin graft.
- You may start hand therapy 10–14 days after the skin graft is placed on the forearm.
- Wear a compression glove for the first few months after the surgery, starting at weeks 3–4, to reduce the risk of your hand swelling (lymphedema).



### Activities

- Wait 6 weeks before restarting activities like shopping, cooking, cleaning, laundry, yard work, strenuous exercise and working outside the home.
- Once you are cleared to sit and feel comfortable doing so, you may drive.
  - You must be off all narcotic pain medications before driving.
  - If you have a thigh donor site, you should discuss your thigh's strength and range of motion with your physical therapist before driving to ensure it is safe.

### Follow-up appointments — after stage 1

- You will see your surgeon or physician assistant every week for 5–6 weeks after surgery until we are sure you are healing well and that you are comfortable.
- Please confirm with your surgeon at your last postop visit that you do not need minor electrolysis around the opening to your new urethra (between the labia). Sometimes a few hairs need to be removed in preparation for stage 2. This usually includes 2–3 sessions and about 10–20 hairs.
- If you are local, you will see your surgical team again midway between the first and second surgeries, and then again at the preoperative appointment for the second surgery. If you live farther away, you will have a phone consultation.



## Stage 2: Perineal masculinization

This is a general guide of what to expect following the second stage of your phalloplasty. Your hospital stay will be 1–2 nights, unless you have complications. Your experience and healing may be different. This schedule, including your medications, may vary based on your unique medical needs.



### Day of surgery

- Surgery will take place at the Center for Health and Healing (OHSU waterfront).
- After surgery, you will spend 2–3 hours in the post-anesthesia care unit (PACU).
- When you are cleared to leave the PACU, you will move to your hospital room.
  - You will stay on the 7th floor of building 2 of the Center for Health and Healing.
  - We will tell your support person or caregiver when you are leaving the PACU. They can meet you at your room.
- What's on my body?
  - Suprapubic catheter to drain your bladder. This connects to a bag where the urine empties.
  - Catheter into your phallus. It is capped and does not have a bag. It will stay in for 3–5 days.
  - IV in your arm.
  - Scrotal dressing between your legs.
  - Bolster dressing around glans (stays on until day 4–5 after surgery).
- You can get out of bed to stand briefly if you want, but you should be assisted.
  - Most patients want to stay in bed until the next day.
  - There are no specific sitting restrictions.
  - You should limit walking just as you did for stage 1.
- Medications:
  - Pain medication
  - Stool softeners
  - Medication to reduce or prevent bladder spasms (oxybutynin)





### Recovery day 1

- You will get out of bed and walk slowly with the help of nursing staff. This will involve going to the bathroom and a few steps in the hallway to assess if you are ready for discharge.
- You will be able to eat regular meals.
- Medications:
  - Oral pain medications
  - Stool softener
  - Medication for bladder spasms (oxybutynin)
- Discharge is possible if your pain is well managed and you are ready to return home.

### Recovery day 2/discharge

- If you are still in the hospital, we will assess your pain and address any ongoing needs prior to discharge.
- If you need to stay in the hospital, then a transfer via ambulance to the main hospital will be initiated. You will go to Unit 4A if space is available. We will not send you home if you are not medically ready.

## Follow-up appointments – after stage 2

- Four to 5 days after surgery: Clinic visit for a wound check and to remove the glansplasty dressing and penile catheter.
- The glansplasty is made with a skin graft. Your surgical team will remove the dressing around postop day 5 in our clinic.
  - Do not remove it yourself before then.
  - At that visit you will be instructed on how to complete daily dressing changes.
  - Medicated gauze (Xeroform) is needed to change the dressing.
- You will have weekly visits after this, until the 4-week postop visit.
- Sometimes there are small areas of wound separation. If this happens, we will teach you how to take care of them.
- If you live out of town, we recommend you remain local in the Portland area for at least 10 days for penile catheter removal. You will need to follow up on a weekly basis after that.
- At around 4–6 weeks, you will put a cap on the catheter and start urinating from the phallus.
  - If this is successful, the catheter will be removed in clinic. The hole in your lower belly will close by itself like any drain site.

## Healing issues

- If you have a healing issue, you might have to keep your suprapubic catheter for a few more weeks.
- If you have a fistula, we may leave the catheter in for up to 6 weeks. Then you may start urinating from the phallus. Some fistulas will heal; otherwise, you will need revision.
- If the fistula persists, we will schedule you for a revision surgery 3–4 months later. During that time, you will urinate from the phallus with some leakage through the fistula.
- If you have issues with urinating, our urology colleagues will perform a retrograde urethrogram to assess the urethra.
- If a stricture is present, the catheter will stay until the date of revision surgery.

Stage 3: Erectile devices

If penetrative sexual intercourse is important to you, you may consider a third stage of surgery to implant an erectile device.

External erectile options

Some people use external devices to create an erection without an implant. Your options include:

- The Elator, an external frame that holds your phallus straight. More details are at [theelator.com](http://theelator.com).
- Using double condoms.

Internal erectile device options

If you want to get a device implanted inside your phallus to create an erection, you have two choices: a semi-malleable device (also called a semi-rigid rod) and an inflatable device.

The table below may help you decide which internal erectile device suits you best.

Please note: We advise against using Coban, a medical material used for splints, because it can prevent blood flow in and out of the phallus.

SEMI-MALLEABLE	INFLATABLE
Lower cost	Higher cost
Easy to use, permanent semi-erection	Your fingers press a pump in the scrotum to inflate the device. Can be painful.
Always the same semi-erect state. The AMS implant is more rigid than the Coloplast implant, but it has a possible higher rate of dislodging.	Can change between flaccid (soft) or erect (hard) by inflating it.
More visible through clothing and may be uncomfortable.	Less visible through clothing.
Higher rate of extrusion. This means the implant presses uncomfortably against the tissues inside the phallus, creates an internal sore and sometimes pushes through the skin.	Higher rate of malfunction due to complex system with multiple small tubes. Possible higher rate of infection due to presence of more material.

## Complication risks

Implanting a foreign object into your body comes with potential complications such as:

- Infection:
  - We will give you antibiotics for several days, starting at the time of your surgery. Despite this precaution, the infection rate is higher than most surgeries we do. If your implant gets infected, you will most likely have to have it removed. If possible, another implant can be inserted about a year later.
- Extrusion:
  - It is important to deflate the device after use. If you have a semi-malleable device, you should make sure your phallus is not pinched within your pants for too long — on an air flight, for example.
- Loosening from the bone where the implant is attached.
- Thinning of the phallus.
- Device components visible through skin.
- Chronic pain.
- Failure of implant (doesn't work anymore).

## Postoperative care

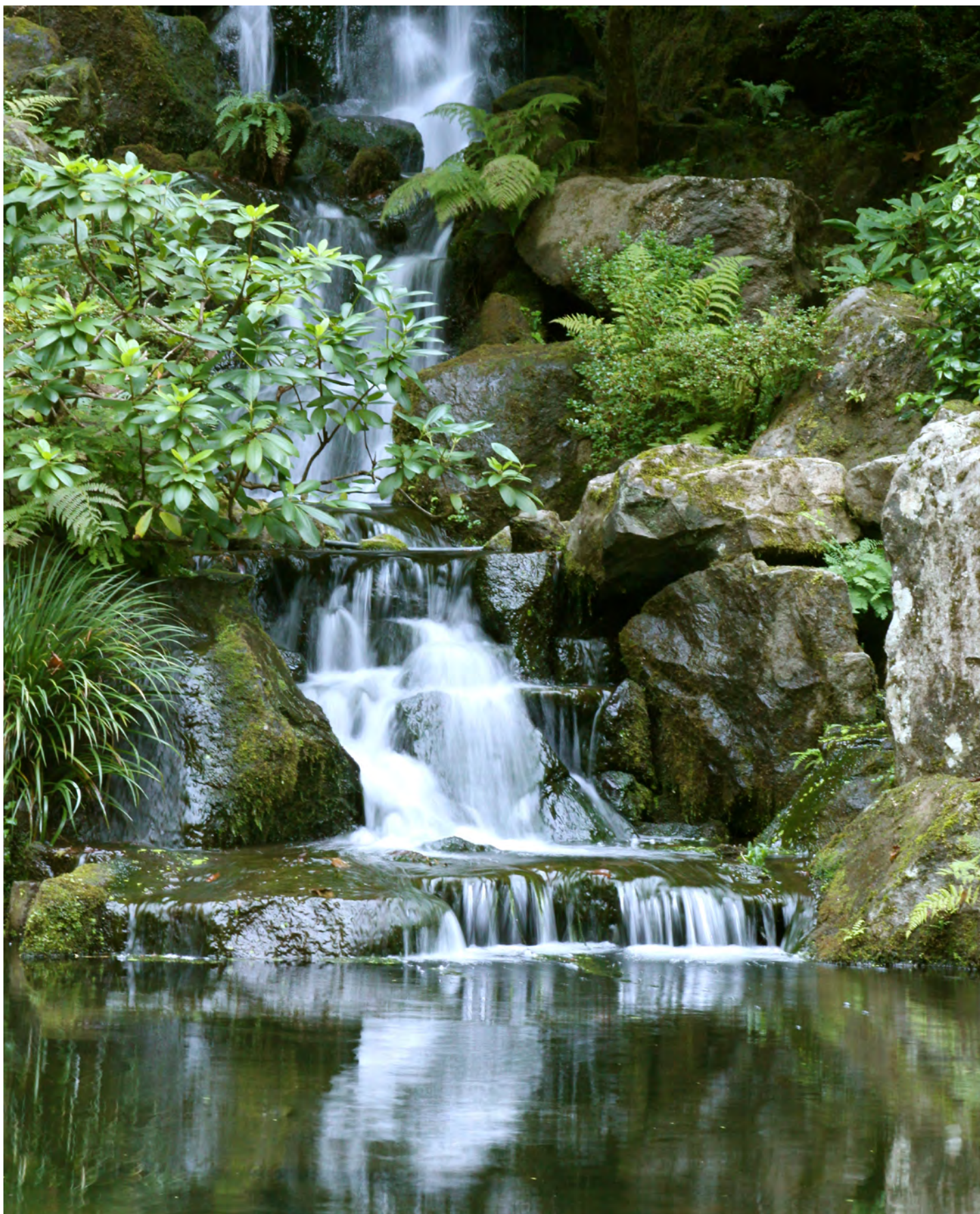
- Outpatient surgery. You can go home the same day.
- You should do minimal walking for 6 weeks. Similar to stages 1 and 2.
- No contact sports, running, cycling or horseback riding for 3 months.
- Sexual activity:
  - Manual stimulation (touching your phallus with your hand) can start after 2 months.
  - Other sexual activity can start at 3 months.
- You will start cycling the inflatable implant around week 6.

Patients who come to Portland from afar should plan on being in town for at least 10 days.

## Insurance coverage

Insurance may not cover the cost of an erectile device. You may need to pay out of pocket for the cost, including routine replacement costs. Implants will not last a lifetime and will almost certainly need to be replaced at some point.







## Section 6:

### Resources

#### Crisis and support

Transition can be liberating. It can also be scary, feel unsafe, create more dysphoria, disrupt personal relationships and be an emotional roller coaster. Several organizations offer immediate help if you are in a crisis, just need to talk to someone or have questions. Their confidential services are available 24/7.

##### **Trans Lifeline**

Offers emotional and financial support to transgender people and has a peer support hotline for trans and questioning callers. The hotline is staffed by transgender volunteers.

- 877-565-8860
- [translifeline.org/hotline](https://translifeline.org/hotline)

##### **The Trevor Project**

Offers crisis intervention and suicide prevention for LGBTQ people younger than 25.

- [thetrevorproject.org](https://thetrevorproject.org)
- Online instant messaging: TrevorChat
- Text-based support: TrevorText

##### **National Suicide Prevention Lifeline**

This national network of local crisis centers has a hotline to provide emotional support to anyone in suicidal crisis or emotional distress.

- 800-273-8255
- [suicidepreventionlifeline.org](https://suicidepreventionlifeline.org)
- Oregon Support and Information

##### **Basic Rights Oregon**

Statewide LGBTQ advocacy and social justice organization.

- [basicrights.org](https://basicrights.org)

##### **Brave Space LLC**

Creates community and connects transgender and genderqueer children, teens, adults and allies with expert providers.

- [bravespacellc.com](https://bravespacellc.com)



### **Human Dignity Coalition**

Bend-based group seeks equality for the LGBTQ community and allies.

- [humandignityco.wordpress.com](http://humandignityco.wordpress.com)

### **Northwest Gender Alliance**

Nonprofit social, support and educational group.

- [nwgenderalliance.org](http://nwgenderalliance.org)

### **Outside In**

Offers resources for name and gender change on identity documents.

- [outsidein.org](http://outsidein.org)

### **Portland Q Center**

Provides a safe space to support and celebrate LGBTQ diversity, visibility and community building.

- [pdxqcenter.org](http://pdxqcenter.org)

### **Rainbow Youth**

Salem-area organization offers welcoming spaces where LGBTQ and gender-diverse young people and their friends can connect.

- [rainbowyouth.org](http://rainbowyouth.org)

### **Sexual and Gender Minority Youth Resource Center**

New Avenues for Youth safe, supervised space with activities for sexual and gender minorities ages 13–23.

- [newavenues.org/smyrc](http://newavenues.org/smyrc)

### **SO Health-E**

Southern Oregon group dedicated to improving access to health care across lines of race, gender, sexual orientation, disability and income. Includes the LGBTQ+ Equity workgroup, which seeks to remove barriers to health care in Jackson and Josephine counties for people in the lesbian/gay/bisexual and gender-diverse communities.

- [sohealthe.org](http://sohealthe.org)

### **TransActive Gender Project**

Provides support groups, information, advocacy and other services to families of Portland-area transgender and gender-diverse youths ages 4–18.

### **Trans\*Ponder**

Eugene nonprofit offers support, education, advocacy and other services for transgender and gender-diverse people.

- [transponder.community](http://transponder.community)

### **National and international support**

#### **National Center for Transgender Equality**

Social justice advocacy organization for transgender people.

- [transequality.org](http://transequality.org)

#### **National LGBT Health Education Center**

Provides education, resources and information to health care organizations to improve LGBT health care.

- [lgbthealtheducation.org](http://lgbthealtheducation.org)

#### **Transgender Law Center**

Civil rights group led by trans people and working to advance transgender self-determination.

- [transgenderlawcenter.org](http://transgenderlawcenter.org)

#### **Transgender Youth Equality Foundation**

Works to advance the rights of transgender, gender-nonconforming and intersex youths ages 2–18.

- [transyouthequality.org](http://transyouthequality.org)

#### **World Professional Association for Transgender Health**

Promotes evidence-based care, education, research, advocacy, public policy and respect in transgender health.

- [wpath.org](http://wpath.org)

## Transgender Health Program resources

### Gender-affirming surgery class

We offer classes on gender-affirming surgery. Classes feature slides and photos to review anatomy, genital reconstruction and surgical outcomes. Classes are free, but registration is required and available on our website.

Patients, at any stage of considering surgery, are welcome to attend this class.

### Fertility and assisted reproduction

We offer patient education content regarding fertility and reproductive options for gender-diverse people and their partners or allies in the next section of this booklet. You may also visit the [OHSU Fertility Preservation](#) website and review an overview of fertility options written by our Transgender Health Program expert, Dr. Paula Amato. Free video-based classes are also available regarding fertility preservation and assisted reproduction.

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