

Gender-Affirming Surgery: Chest Masculinization

Thank you for choosing the UCHealth Integrated Transgender Program - Anschutz Medical Campus at the University of Colorado Hospital. We are excited that you are taking these steps to affirm who you are. We want to help you as you move toward a physical appearance that fits with your gender identity.

This booklet gives you information to learn about gender-affirming surgeries and what to expect as a patient with our program. Please feel free to contact our office with questions or to talk with one of our providers any time.

Table of contents.

- What is gender-affirming surgery?
- Who is a good candidate for gender-affirming surgery?
- Chest masculinization surgery
- Risks and complications of surgery
- Preparing for surgery
- What to expect after surgery and discharge from the hospital
- Follow-up appointments
- Checklist for surgery

What is gender-affirming surgery?

Gender-affirming surgery is a "standard of care" treatment to reduce gender dysphoria. Standard of care means that doctors and medical experts believe this is the best treatment for a medical condition.

Gender dysphoria can happen when a person's gender identity is not the sex that was assigned to them at birth. The goal of gender-affirming surgery is to change the features of the body which often cause this dysphoria. The surgeries will create body features that match your gender identity. These surgeries cannot be reversed.

Many studies have shown that surgery, along with hormone therapy, can lessen gender dysphoria in many people. Patients who have had gender-affirming surgery say they are very satisfied and have a better quality of life because of their surgeries.

We know that many of you have had problems because you were not able to get treatment for gender dysphoria. You may have struggled with personal growth. You may have felt that your life is not as fulfilling as it should be. We know that gender dysphoria can hurt you:

- Mental health
- Emotional health
- Physical health

Who is a good candidate for gender-affirming surgery?

The World Professional Association for Transgender Health (WPATH) says that having surgery as a standard of care for gender dysphoria should be based on 2 things. First, each person's unique health care concerns and second, their level of dysphoria.

While surgery is a standard of care in transgender health, not every person is a good surgical candidate. Our surgeons must look at all of a person's risk factors and decide if surgery could be harmful to some people. There are many factors that help decide whether a person is a good candidate for surgery.

To be considered a good surgical candidate for chest surgery, you must meet these criteria (some of these are based on WPATH guidelines):

- Be at least the "age of majority." This is most often 18 years or older (with some exceptions) and be able to make informed decisions (decisions based on facts).
- A history of long-lasting gender dysphoria that is well-documented by a licensed mental health provider. A referral letter that supports this must be written by this provider.
- If you have any major medical or mental health problems, they must be fairly well-controlled by a primary care doctor or mental health provider.
- Body mass index (BMI) of 35 or less. This is a measure of your body fat based on your height and weight.
- Have at least 1 support person who will be able to help you for at least 2 weeks after surgery.
- Have a stable living environment that is safe and lets you rest and heal after surgery.

A person would not be considered a good candidate for surgery for any of these reasons:

- Significant, active substance abuse such as:
 - IV drug use
 - Alcoholism
 - Tobacco use
- Unstable living environment such as:
 - Not having a home to live in.
 - Not able to get basic needs like water, food or electricity.
- Uncontrolled or untreated medical or mental health issues such as:
 - Diabetes (HgA1c greater than 7.5)
 - Severe mental health diagnoses including psychotic disorders. Sometimes, surgery can be considered if these issues are well-controlled with medicine and psychotherapy.

Some patients have a higher risk of problems after surgery and problems healing after surgery.

People are at higher risk if they have certain medical issues, such as:

- Diabetes
- Autoimmune disease
- Bleeding or clotting disorders
- High BMI
- Heart failure
- Lung disease

Each person's surgery case is reviewed separately by our team. We will review your health records and evaluate your risk. If you are a good surgical candidate, you will need your primary care doctor to help you to get as healthy as possible before surgery.



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Chest masculinization surgery.

Chest masculinization surgery is done when a person wants their chest to look more masculine.

Types of chest masculinization surgery.

There are different types of surgical techniques that can be used based on the anatomy of your current chest. When you meet with your surgeon, they will use a grading scale. The scale is based on the:

- Amount of stretch your skin has.
- Size of your current breasts.
- Position of your nipple-areolar complexes.

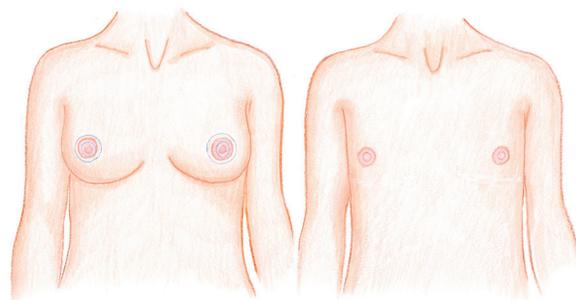
There are 2 main types of surgical techniques the surgeon may use, which are described below.

Periareolar mastectomy.

This technique is used for patients who have minimal breast tissue, and little or no skin laxity (stretch). In this surgery, the surgeon:

- Makes an incision around the nipple.
- Takes out the breast tissue through that incision.
- Resizes the nipple-areolar complex.

Your scars will be around the edges of the areola.

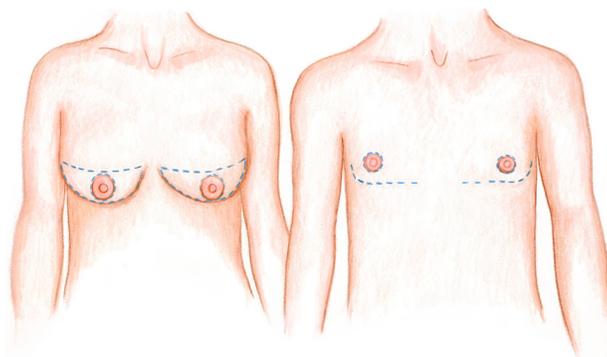


Double-incision mastectomy with or without free nipple areolar complex grafts.

This technique is used for patients who have significant breast tissue, or their skin has a lot of stretch. This can be caused by:

- Significant weight loss
- Long-term breast binding
- Smoking
- Genetics

Two incisions are made across the breast so the surgeon can remove the breast tissue and extra skin. After this is done, the 2 skin edges are brought together to form 1 horizontal incision at the lower part of your chest. If you want to have a nipple-areola complex, the nipple-areola complex will first be excised (cut out) and then resized. Then, it will be grafted (attached) in its new position that will give your chest a more masculine appearance. Your scars will be horizontal along the lower edge of the new male breast and around the nipple.



Risks and complications of surgery.

Although most people have very good results, there are risks to any surgery such as possible complications and postoperative risks. We will be there with you through any complications that may happen.

Short-term complications or risks:

- Bleeding
- Infection
- Fluid collection
- Delayed wound healing
- Damage to nearby structures
- Skin necrosis
- Nipple-areolar complex necrosis
- Fat necrosis (some of the fat dies)
- Post-mastectomy pain syndrome that can last weeks to months
- Burning
- Nerve-type pain in the chest after surgery

Long-term complications or risks:

- Asymmetry
- Contour irregularities requiring revision
- Changes in sensation to chest or nipples
- Chronic pain
- Scarring (including hypertrophic and keloid scars)
- Hyper- or hypopigmentation of the nipple-areolar complex
- Unsatisfactory aesthetic results requiring revisions

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Preparing for surgery.

With any kind of surgery, there are several steps to go through before you go to the operating room. Here is some information about what happens before your surgery.

Before your first appointment:

- You will need to get the referral letters from your health care providers for insurance approval. The letters must include:
 - The length of your dysphoria and previous treatment(s).
 - The length of your hormone therapy treatment.
 - A statement of medical necessity (why this surgery is required).
- Your mental health providers must write 1 or 2 of the letters.
- The provider who gave you hormone treatments must write 1 of the letters.
- If you are able to bring these letters with you to your first appointment and we feel that you are a good surgical candidate, we can ask for insurance approval right away. This will speed up the process of getting a surgery date set for you.
- We know that for some gender-affirming surgeries, WPATH only needs 1 letter from a mental health provider, but some insurance companies need 2 letters from mental health providers.
Please call your insurance company to find out how many letters they need. If they need 2 letters from mental health providers, you will need to get a second one.

Please remember, many insurance companies do not cover these surgeries. We will give you a quote for how much the surgery will cost if your insurance company does not cover these procedures.

Your first appointment.

You will meet with the surgeon and the physician assistant, as well as other members of the team. At this appointment:

- We will completely review your medical, surgical and social history.
- We will talk about your goals and any concerns. You will have plenty of time to ask any questions you may have.
- You will learn about:
 - The different kinds of surgery.
 - How long you will stay in the hospital (if needed).
 - Risks and benefits of surgery.
 - What to expect after surgery.
- You will be given a gown to change into for an exam. We will:
 - Do a physical exam of your chest.
 - Take measurements of your chest.
 - Decide if more imaging or lab tests must be done before surgery.
- We will also take photos of your chest at this visit to be used for insurance approval.
- If you use tobacco products, you will be told to stop. You will have a test for nicotine about 2 to 4 weeks before surgery and on the day of surgery. These must be negative for you to have surgery.
- Please review this booklet for the other reasons that could keep you from having surgery.

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After your first appointment:

- If you did not give us the referrals letters at your first appointment, you will need get them now. We need to send these letters to insurance company to get approval for the surgery. The letters need to include:
 - The length of your dysphoria and treatment(s) you have already had.
 - The length of your hormone therapy.
 - A statement of medical necessity (why this surgery is required).
- You must get a letter from:
 - Your mental health provider
 - Your hormone treatment provider, if applicable.

You will fax these to our office or send them through your My Health Connection account.

- You need 1 letter from your mental health provider and 1 letter from your hormone provider (if applicable).

Remember to call your insurance company because some companies need 2 letters from mental health providers.

- Depending on your current and past medical history, we may need a letter from your primary care doctor approving you for surgery.
- You will need to choose a support person that will be able to drive you home from surgery and stay with you for the first 24 hours after surgery.
- We need to have the name of your support person before we can give you a surgery date.
- You may be told to get a mammogram before surgery. We will decide this at your first appointment.
- If you live outside the Metro Denver area (more than 2 hours from the hospital), you should make plans to stay in the Denver area for about a week after surgery.
 - It is important for you to be close to the hospital in case you have any early complications.
- Once all of these things are done, we will call you to schedule your surgery and also schedule a preoperative appointment.

Preoperative appointment:

- At this appointment we will:
 - Talk about the operation with you.
 - Make sure nothing has changed in your medical history.
 - Give you another physical exam.
- You will finish your paperwork and we will talk about your instructions, including:
 - What medicines to stop taking before surgery.
 - How to take care of your incisions after surgery.
 - Where to go on the morning of your surgery.

Before your surgery day:

- You need to stop using all tobacco and marijuana products 6 to 8 weeks before surgery. You will have a nicotine test about 2 to 4 weeks before surgery and again on the day of surgery. These tests must be negative for you to be able to have surgery.
- Please call the surgery check-in desk to confirm the time you should arrive. Call between 2 and 4 p.m. the day before your surgery: 720.848.6070.

What to expect after surgery and discharge from the hospital.

After surgery, you will spend a few hours in the recovery area. Here we will watch your vital signs to make sure you wake up well after having anesthesia. If you are recovering well and your vital signs stay stable, you will be able to go home from the recovery area.

What to expect after surgery:

- You will be excited about the change in how you look after surgery. But you may feel anxious as well. We are here to help you while you adjust to these changes.
- Please remember it is very important for you to come to all of your follow-up appointments. You will see your:
 - Surgeon
 - Provider who give you hormones
 - Mental health provider
- If you have nipple-areolar complex reconstruction, you will not be able to take a shower until your surgeon says it is OK.
 - You may only take a sponge bath at first.
- If you do not have nipple-areolar complex reconstruction, you can shower 48 hours after surgery.
 - We will teach you how to cover the dressings during your shower.
- You will have some pain and discomfort of the chest. But you should be able to manage your pain with medicines.
- You will start taking medicines the day after surgery. Some medicines will be taken only as needed. They include:
 - Acetaminophen (Tylenol)
 - NSAIDs (Motrin, Aleve)
 - Muscle relaxants
 - Narcotic medicines
- You will have activity restrictions such as:
 - Do not lift anything that weighs more than 5 pounds.
 - No pushing or pulling more than 5 pounds.
 - Do not go to the gym or drive a car until your surgeon says it is OK.
- No direct pressure to the chest except the compression vest you will wear at all times (except during showering).
- You will not be able to soak in a tub or go in a swimming pool until your surgeon says it is OK.
- You can eat your normal diet after surgery.
- You need to drink plenty of water each day. Try to drink 2 liters a day.
- Do not drink alcohol until your surgeon says it is OK.
- You will be given stool softeners at discharge to help with your bowel movements after surgery.
 - Take these medicines each day during the first 1 to 2 weeks after surgery.

Call our office right away during office hours at 720.848.0800 or go to the ER if you have any of these:

- Fever (more than 100.4 F)
- Nausea or vomiting
- Heart rate more than 100 beats a minute that does not slow down
- Incision sites that have:
 - Pain that is getting worse
 - Redness
 - Drainage
- Chest pain
- Shortness of breath
- Trouble breathing or swallowing
- Changes in vision
- Weakness or numbness in your arms or legs

What to expect when you leave the hospital (discharge):

- You will have drains (tubes) put into your chest during surgery and you will go home with them still in place:
 - The drains will stay in place until your postoperative clinic appointment. This is to keep fluid from building up in your chest.
- You will write down how much fluid comes out of each drain every day in a log that we give you. Bring this log with you to your first follow-up appointment:
 - You will have to drain the output (fluid) around the same time every day. Your surgeon needs to know the 24-hour output of each drain for each day.
 - Keep the surgical dressings at the drain sites dry at all times.
 - We will teach you how to cover your drain sites with another dressing when you take a shower. The dressings are made of gauze and tape.
- You will have surgical dressings over your chest incisions. If you have free nipple-areolar complex grafts, you will have bolsters (special type of dressings) sewn over these grafts.
 - Do not remove the bolsters and keep them completely dry until your first postoperative visit.
- We will make sure you have the right amount of pain medicines to keep your pain under control after surgery.
- We will look at the medicines you take and tell you which ones to start taking again at home and when to start taking them.
- We will give you written instructions to help you with:
 - Taking care of your incision
 - Your diet
 - Activity restrictions

Follow-up appointments.

This is a general timeline. Your follow-up appointment schedule may look different.

First clinic follow-up will be: 5 to 7 days after surgery if you had nipple reconstruction, 10 to 14 days after surgery if there was no nipple reconstruction:

- At this appointment we will:
 - Remove your dressings (bandages).
 - Check your incisions.
 - Make sure your pain is under control.
- If you have drains, they will stay in your chest until there is less than 20 cc output a day for 3 days in a row.
- If you have nipple grafts, we will remove the bolsters. You will start putting antibiotic ointment on your nipples 2 times a day and cover them with nonstick gauze bandages.

Checklist for surgery:

You must call your insurance company and ask how many letters they need. Some need 2 letters from mental health providers.

- 1 (or 2) letters from your mental health provider.
- If you are taking hormones, you need 1 letter from your hormone provider.
- If you are not taking hormones, you need 1 letter from your primary care provider.
- Approval from your primary care doctor (if your surgeon decides you need this).
- Have a mammogram (if needed).
- Stop all smoking or using tobacco products at least 6 to 8 weeks before surgery. There is a nicotine test about 2 weeks before surgery.
- Choose a support person to drive you home and help you after surgery.
- A safe and stable living environment.

Second clinic follow-up: 3 to 6 weeks after surgery:

- We will continue to watch how you are healing.
- You will probably be able to increase your activity after this appointment.
- Remember, you may see some defects (not looking perfect) or scarring of your chest. You may not be satisfied with the way your chest looks yet. But it takes months to fully heal.

Third clinic follow-up: 3 to 4 months after surgery:

- We will look at your scars and look for any deformities (flaws). If needed, we can talk about any ways that we can make your chest look better.
- We will take postoperative photos.

Fourth clinic follow-up: 10 to 12 months after surgery:

- We will check to see if we need to fix any scars or make other corrections to your chest, so you have the best possible results.

Lifelong follow-up and preventative care.

The WPATH standards of care says it is important for you to have lifelong follow-up with your primary care physician and transgender health providers. You need to have medical screenings for the rest of your life. It is important to keep having exams based on your risks and what your primary care provider tells you to do.

Even though we have taken out your breast tissue, there have been rare cases of patients developing breast cancer. We know that that cancer screenings can be both physically and emotionally painful. It will be important for you to work with your medical and mental health providers to choose the right screenings for you.



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