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 the 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.

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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 harm your:
- 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 things that help decide if a person is a good candidate for surgery.

To be considered a good surgical candidate for genital reconstruction 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.
- A history of taking feminizing hormones for at least 12 months in a row, and a referral letter from your hormone provider with details about this.
- Living socially in a gender role that matches your gender identity for at least 12 consecutive months.
- 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 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 get as healthy as possible before surgery.

There are many factors that help decide whether a person is a good candidate for surgery.
Genital reconstruction surgery—vaginoplasty types and techniques.

Vaginoplasty surgery is a gender-affirming surgery where your genitals are reconstructed into a neovagina using the tissue of your current anatomy. There are 2 different types of vaginoplasty surgeries:

• Full-depth vaginoplasty
• Zero-depth vaginoplasty (also known as vulvoplasty)

Both surgeries remove the male genitalia surgically, but they have different results (or outcomes) after surgery. We will work with you to help you choose the best surgery to match your goals and gender identity.

Full-depth vaginoplasty.

This is the most common type of vaginoplasty surgery. The technique our surgeons use is called the robotic-assisted penile inversion vaginoplasty with peritoneal flaps. This procedure is done by a plastic surgeon and a urologist.

During surgery, a urinary catheter is placed. The catheter will stay in place for at least 4 days after surgery. Then, the penile skin is inverted (turned inside out) to make part of the lining for the neo (new) vagina. The skin of the scrotum is removed, and sometimes it is used to make part of the lining for the neo (new) vagina. The surgeon will also perform a bilateral orchiectomy (removal of the testicles) and shorten the urethra (the tube that urine comes out of). The glans of the penis will be rearranged to make the clitoris.

The new clitoris will be sensitive to sexual stimulation. Some of the penile and scrotal tissue will be used to create the vulva (external genitalia).

Our urologist makes a space between the rectum, prostate and bladder. Most of this dissection is done by a minimally invasive approach using the robot. The robot makes small incisions through the abdomen. The robot is also used to create peritoneal flaps (lining of the pelvic cavity). The flaps are then moved down to create the dome of the vaginal canal. The peritoneal flaps will be then connected to the inverted penile skin. If the inverted penile skin does not reach the peritoneal flaps, scrotal skin will be used as a bridge to connect the two.

The depth of your neovagina is partly decided by your anatomy. This technique creates a durable, deep vaginal canal. The peritoneal flaps may provide some lubrication for the neovagina. Once the neovagina is created, packing (sterile bandages) that has been soaked in antibiotic solution is placed in the canal. A wound vacuum is placed over the packing to remove fluid from the wound over the next few days.

You will begin dilations before being discharged from the hospital and continue dilations for life. We will talk about the dilation schedule later in this booklet.
Zero-depth vaginoplasty.
This procedure is for patients who do not want to be able to have penetration after surgery or do not want to do lifelong dilations. While there are less risks involved with this procedure, it is important to know that it is more difficult to create a full-depth vagina if you would decide that you want that in the future. This surgery includes:

- Removal of the penis and scrotum
- Orchiectomy (removal of the testicles)
- Shortening of the urethra
- Creation of the neoclitoris with sensation
- Creation of labia minora and majora without making a deep vaginal canal

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.

The general risks of surgery can include:

<table>
<thead>
<tr>
<th>Bleeding</th>
<th>Loss of erogenous sensation</th>
<th>Chronic pain or sensitivity</th>
<th>Spraying of urine</th>
<th>Need for more surgery</th>
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<tbody>
<tr>
<td>Infection</td>
<td>Loss of sexual function</td>
<td>Injury to rectum, prostate or bladder</td>
<td>Stenosis or stricture of the urethra</td>
<td>Anesthesia-related complications</td>
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<tr>
<td>Fluid collection</td>
<td>Not able to have an orgasm</td>
<td>Recto-vaginal fistula (abnormal connection between the rectum and vagina)</td>
<td>Urinary tract infections</td>
<td>Stroke</td>
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<tr>
<td>Delayed wound healing</td>
<td>Not able to use the neovagina</td>
<td>Vesico-vaginal fistula (abnormal connection between the bladder and vagina)</td>
<td>Unwanted or unacceptable cosmetic result</td>
<td>Heart attack</td>
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<tr>
<td>Skin necrosis (death of tissue)</td>
<td>Not able to have intercourse</td>
<td>Necrosis of neoclitoris</td>
<td>Recto-vaginal fistula (abnormal connection between the rectum and vagina)</td>
<td>Blood clot in the leg or lung</td>
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<td>Pain with intercourse</td>
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<td>Vesico-vaginal fistula (abnormal connection between the bladder and vagina)</td>
<td>Death</td>
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<td>Lower extremity neuropathy (due to injury to nerves)</td>
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<td>Scarring (including hypertrophic and keloid scars)</td>
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<td>Numbness</td>
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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.

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:
  - Electrolysis (permanent hair removal) that is required before surgery.
  - The different kinds of surgeries.
  - How long you stay in the hospital for each surgery.
    • Most often 5 days after surgery for full-depth vaginoplasty.
    • About 3 days after surgery for zero-depth vaginoplasty.
  - Risks and benefits of each surgery.
  - What to expect after surgery.
• We will do a physical exam and take measurements of your genitalia for surgical planning. We know this can be a triggering experience. If you would like, you may have a support person in the room.
• 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 other reasons that could keep you from having surgery.

After your first appointment—timeline before surgery.
6 to 12 months before surgery:
• You will need to start your electrolysis as soon as you can. It may take between 6 to 12 months to complete full hair removal.
• Use these photos to show the electrolysis specialist the areas you need to have done.
  • If you have already completed electrolysis, the process will be quicker.
2 to 3 months before you are done with electrolysis (or if you have already finished):

- Contact your mental health and hormone treatment providers to get letters of referral. You will need:
  - 2 from two different providers
  - 1 from your hormone treatment provider
- You will bring these letters with you to your next visit. 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 needed).
- If you cannot get a second letter from a mental health provider, let our social workers know. They can do an evaluation and should be able to write a second letter.
- Call the plastic surgery clinic at 720.848.0800 or send a message through My Health Connection to let us know that you are almost done with electrolysis. At that time, we will make your next appointment.

Second clinic appointment.
At this visit we will:
- Talk about the surgery with you.
- Examine the area of electrolysis to make sure hair removal is good enough.
- Answer any questions you have.
- Remember to bring your 3 letters with you so we can send for insurance approval. This most often takes about a month.
- As soon as we have insurance approval, we will set your surgery date. We will then call you to set up a preoperative clinic appointment.
- You will need to choose a support person that will be able to drive you home from surgery and stay with you for the about 7 days after surgery.
- We need to have your support person's name before we can give you a surgery date.

Preoperative clinic appointment (3rd visit):
- At this visit we will:
  - Review the operation with you.
  - Make sure nothing has changed in your medical history.
  - Get lab work to make sure you do not have any blood issues before surgery.
- 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:
- 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 10 to 14 days after surgery.
  - This is important so that you can get to all of your follow-up visits.
- You need to stop using all tobacco and marijuana products 6 to 8 weeks before surgery. You will have a nicotine test about 2 weeks before surgery and on the day of surgery. These tests must be negative for you to be able to have surgery.
- You may be asked to stop taking your hormones 4 weeks before surgery. These medicines may increase your risk of blood clots after surgery.
  - We know that this can be upsetting. We will make sure you restart the hormones as soon as it is safe after 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.
Most often, you will stay in the hospital for at least 5 nights after surgery. During this time, we will make sure:
- Your pain is controlled.
- You can eat and drink without problems.
- You are able to get up and walk.
- You start your dilations.

What to expect when you are in the hospital.
Postoperative days 1 to 4:
- You will be on bed rest (meaning you will not be able to get up out of bed) for the first 2 days after surgery.
  - After that you will start getting out of bed and walking short distances with the help of staff.
- During this time, we:
  - Turn you in bed and change your position often.
  - Give you pain medicines to keep your pain manageable.
  - Give you a normal diet after surgery.
  - Give you strong medicines to make sure that you do not strain while having a bowel movement.
- You will have small incisions on your belly from the robot-assisted part of the surgery. These will be covered with surgical dressings (bandages).
- You will have the urinary catheter and wound vacuum dressing in place over your new genitalia.
- We will remove your wound vacuum dressing and urinary catheter on the 4th day after surgery.

Postoperative day 5:
- Our team members will teach you how to dilate.
- You will begin dilating 4 times a day for 15 minutes each time (please see section on dilation).
- We will make sure you:
  - Understand how to dilate correctly.
  - Are comfortable doing this on your own when you go home.
- You will also begin douching each day (please see section on dilation and home care).
- If everything is going well, you should go home on this day.
What to expect when you leave the hospital (discharge):

• Before you are discharged to go home, we will make sure that you are eating without any problems, having bowel movements, urinating, and are able to walk slowly.

• 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 get used 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 gives you hormones
  - Mental health provider

Things to expect after surgery (these can last for many weeks to months):

• Swelling
• Bruising
• Oozing or drainage that is:
  - Red
  - Brown
  - Yellow
• White or yellow string-like pieces (similar to string of a tampon)
• Blood—up to 1 cup can be normal
• Mild separation in the stitching on the sides of the vagina
• It is common to have urine spraying after surgery. This can last for months and often gets better with time.

Activity guidelines:

• Be sure to balance being active with time to rest.
• For the first 4 weeks do not:
  - Lift more than 5 pounds
  - Push
  - Pull
• No sexual intercourse (vaginal or anal) for at least 3 months or until you are told it is OK by your surgeon.
• No strenuous activity for the first 4 weeks.

Daily care:

• Dilate 4 times a day as you were told.
  - We will give you a paper with specific instructions and show you how to dilate before you leave the hospital.
• Shower each day:
  - Wash with soap and water.
  - Use chlorhexidine wash for the first week when showering.
• Douche 2 times each day as you were told:
  - Use normal saline.
• Remember to wipe from front to back after urinating (peeing) or having a bowel movement.

Be sure to balance being active with time to rest.
Medicines:
- Take your medicines as you are told by your doctor. The best pain relief medicines to use are:
  - Acetaminophen (Tylenol)
  - Celecoxib (Celebrex)
  - Pregabalin (Lyrica)
- Use narcotic medicines only as needed.
- Keep taking the stool softener docusate sodium (Colace) while you are taking pain medicines.
- You may use gentle laxatives if needed, including:
  - Senna
  - Bisacodyl
  - Polyethylene glycol
- Do not use suppositories or enemas.
- Metronidazole gel (Metrogel): Use on the 1st, 2nd and 3rd dilation of the day.
  - Use about a quarter-size amount on dilator on top of the lubricant.
- Collagenase (Santyl): Use at the last dilation of the day.
  - Use about a nickel-size amount on dilator on top of the lubricant.
- Mupirocin (Bactroban): This is only to be used if there are blisters or skin tears.
- Use saline for the first week of douching.
- Start taking your regular medicines unless you are told not to take them.
  - You may start taking your hormones again if you are walking daily without problem.
  - Please see or talk to your hormone provider to adjust the dose (if needed) before restarting your hormone therapy.

Diet:
- You may eat the same diet you ate before surgery.
- Drink lots of water. Try to drink 2 liters a day.
- Do not drink alcohol until your doctor says it is OK.
- Do not start using any tobacco products again. This can interfere with the healing process.

Call our office right away during office hours at 720.848.0800 or go to the ER if you develop any of these:
- Fever that is higher 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
- Increased pain or spreading redness in the area that is not the normal healing redness
- Persistent foul smell
Follow-up appointments.
This is a general timeline. Your follow-up appointment schedule may look different.

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<tr>
<th>First clinic follow-up: 5–7 days after you go home from the hospital:</th>
<th>Second clinic follow-up: 3–6 weeks after surgery:</th>
<th>Third clinic follow-up: 3 months after surgery:</th>
</tr>
</thead>
</table>
| • We will check your surgical incisions and make sure there are no signs of infection.  
• We will make sure you are not having any problems with dilations.  
• Remember, it is not unusual to have some wounds that heal slower in some areas. We will decide when to schedule your next follow-up appointment based on how you are healing at this visit. | • We will continue to watch how you are healing.  
• You will probably be able to increase your activity after this appointment.  
• You will still be dilating 4 times per day.  
• Remember, you may notice deformities (flaws) or scarring that are not pleasing to look at yet. But it takes months to fully heal. | • We will look at your scars and check for any deformities (flaws) in how you are healing.  
• You will be dilating 3 times per day by this point.  
• You will be able to get back to full activity by this appointment. |

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<tr>
<th>Fourth clinic follow-up: 6 months after surgery:</th>
<th>Fifth clinic follow-up: 1 year after surgery:</th>
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</table>
| • We will check to see if there we need to fix any scars or make other revisions.  
• You will still be dilating 3 times per day. | • Your neovagina should be healed well by now. The sensation (feeling) you have in the vagina now is what will be normal for you.  
• In most cases, you can decrease dilation to 1 time a day depending on your healing. |
Postoperative dilation after vaginoplasty.

Dilation is important to keep the width and depth of the vaginal canal the same size that we made it during surgery. It helps prevent the surgical scar from shrinking, and it gives the nearby tissues a good stretch. Without dilation the body will close this newly created space. Scar shrinking happens most often within the first year, but the possibility of scar shrinking can last for your entire life.

Dilation is a lifetime commitment. Please remember:
- Dilation is a very important part of postoperative healing. Do not forget to do it.
- Intercourse is not a substitute for dilation. Please dilate regularly even if you are sexually active.
- After 1 year you will be able to spend much less time dilating.
- If you do not dilate, you will have:
  - Scar tissue develop.
  - Loss of depth and width of the neovagina.
  - The vaginal canal will close down.

Please take care of your new vagina!

What is a dilator?

Dilators are medical instruments, please use them carefully. We will teach you how to properly use them while you are in the hospital and show you again in outpatient physical therapy. If dilators are not used correctly, injuries can happen. Your dilators are slightly curved for easier use. Please remember:
- This is the most important part of your postoperative care.
- We start with the dilator size that fits your canal, and insert it as deep as we can without hurting you.
  - Most patients are able to insert the dilator up to the last white dot.
  - We will give you instructions about when to decrease the dilator size.
- When starting dilation, the tip of the dilator may need to point slightly downward, but usually the tip should be pointing up toward your belly button as you push it in.

How do I dilate?

Detailed instructions on how to do this are given on the next pages. Please remember:
- To stay relaxed throughout the process.
- To start in a comfortable position.
- Do not rush.

The lubrications you will use are:
- Surgilube (A sterile, water-based lubricant.)
- Metronidazole gel (Vaginal antibiotic to stop “bad” bacterial growth.)
- Collagenase when needed (Santyl—a debriding medicine to remove any “dead” cells in the vaginal canal.)

It is important to use the largest dilator you can comfortably for the best stretch and to lengthen your vaginal canal.

Douching:
- Start douching the day of you are discharged.
- Use normal saline until you run out (most often during the first week).
- After you run out of saline, mix white distilled vinegar (50%) and tap water (50%) together and use that mixture.
- Douche 1 to 2 times a day for about 8 to 12 weeks.
- We suggest that you douche 1 to 2 times a week after that.
Dilation instructions.

When dilating, leave dilator in for 15 minutes or longer if you can. Follow these steps:

1. Clean dilator with warm water and antibacterial soap. Rinse the soap off well and dry with a clean paper towel or cloth. Please remember:
   - Do NOT use alcohol wipes.
   - Do NOT place the dilator in the dishwasher.

2. Go to a comfortable place where you can be relaxed for 20 minutes. Lay out all the supplies you will need, including:
   - Dilator
   - Lubricant (Surgilube or Metronidazole gel or Santyl as your doctor tells you.)
   - Hand mirror
   - Baby wipes

3. Lie down on your back. You can prop your head up with pillows, but do not raise your head more than 15 degrees, which is almost flat.
   - Lying flat allows the rectum to “fall away” from the vagina for easier dilation.

4. Put water-based lubricant on the dilator and also any medicine you are told to use.
   - Be sure to use plenty of lubricant. (Too much is better than too little).

5. Take 5 deep breaths into your belly with your eyes closed and relax all of your muscles.

6. Use the mirror to find the opening and gently put the dilator inside. Start with the curved end pointing slightly downward at first. Then, turn the dilator so the curved end is facing upward. This will help the tip glide beneath the pubic bone. Once inside the vaginal canal, aim the curved end so that it is facing your belly button.

7. Resistance (being hard to put it in) and tenderness (feeling sore) are normal. If you have too much discomfort or feel too sore—stop. Use the next smallest dilator for 5 to 10 minutes, then try again with the original size dilator.

8. Insert the dilator to the full depth of your vagina.
   - You know you will have reached this point when you feel medium resistance.
   - Continue to use firm pressure but do not force the dilator to go deeper inside.
   - Hold in place for 15 mins.

9. Gently remove the dilator. If you feel a vacuum sensation when you take it out, try gently twisting the dilator back and forth while pulling it out slowly.

10. Wash the dilator with soap and warm water and dry well. Put it back inside the carrying case.

Please note: For the first week of dilations, use Metronidazole gel at the tip of the dilator for the first 3 dilations of the day and Santyl at the tip of the dilator for the last dilation of the day.

The picture below shows what the dilator should look like. Yellow is lubrication and blue is Metronidazole gel or Santyl.
Dilation schedule.
The schedule is not the same for everyone. This is a sample. Your providers will work with you to find which dilator you should be using, and when to go up to a larger size. For example:

**Weeks 1 to 6:**
- Use the green dilator. Dilate 4 times a day. You should do the sessions about 4 hours apart.
- If you feel resistance, go down 1 dilator size (blue), and use the blue one first.
  - Insert for 5 to 10 minutes, then take out the blue one and switch back to the green.

**Weeks 7 to 12:**
- Go up to the next biggest dilator (orange). Dilate 3 times a day.
- If you feel resistance, go down 1 dilator size (green), and use the green one first.
  - Insert for 5 to 10 minutes, then take the green one out and switch back to the orange.

**Months 3 to 9:**
- Dilate 3 times a day.

**Months 9 to 12:**
- Dilate 1 to 2 times a day.

**After 1 year:**
- Keep using the largest dilator you can. Dilate 1 to 3 times a week.
- If you feel resistance, go down 1 dilator size and dilate more often.

**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.

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**Checklist for surgery:**
- Electrolysis is finished. Call our clinic 2 to 3 months before you are done to schedule an appointment.
- 2 letters from mental health providers. Have these finished 2 to 3 months before you are done with electrolysis. Bring them to your second clinic appointment.
- 1 letter from your hormone provider. Have this finished 2 to 3 months before you are done with electrolysis. Bring it to your second clinic appointment.
- Approval from your primary care doctor (if your surgeon decides you need this).
- Stop using all smoking or tobacco products 6 to 8 weeks before surgery. You will have a nicotine test about 2 weeks before surgery.
- Choose a support person to drive you home and help you after the surgery.
- A safe and stable living environment.