

ORCHIECTOMY GUIDEBOOK: WHAT TO EXPECT

Introduction

Orchiectomy is a gender affirming, lower body surgery performed at Women's College Hospital (WCH) which involves the removal of the testes (testicles) and adjacent spermatic cords.

The intended results of this surgery are to:

- Reduce gender dysphoria by aligning anatomy with gender identity
- Eliminate main source of testosterone production and its unwanted side effects
- Stop taking testosterone blockers
- Lower dose of estrogen-based medications and reduce their risks and unwanted side effects

The side effects of this surgery are:

- Irreversible removal of tissue producing testosterone and sperm
- Permanent infertility (no ability to have biologic children)
- No testosterone production - higher risk for osteoporosis if a sex hormone is not used
- If testosterone levels are not already blocked, may experience new side effects of low testosterone, which may include erectile dysfunction, decreased libido and decreased energy
- Possible atrophy (shrinking) of the scrotal tissue

The Procedure

Orchiectomy is a procedure that is performed inside of an operating room. You will be under general anesthesia, so you will be asleep and won't feel any pain. The procedure from start to finish takes about 1 hour however the actual operation takes closer to 20 minutes. The procedure is a same day surgery which means you will be going home that day. The basic steps in an Orchiectomy are:

1. An incision is made in the middle of the external genitals (scrotum)
2. The blood vessels and spermatic cord are isolated and tied off
3. The spermatic cord is cut and the testes (testicles) are removed
4. The incision is closed with dissolvable sutures and covered with a dressing

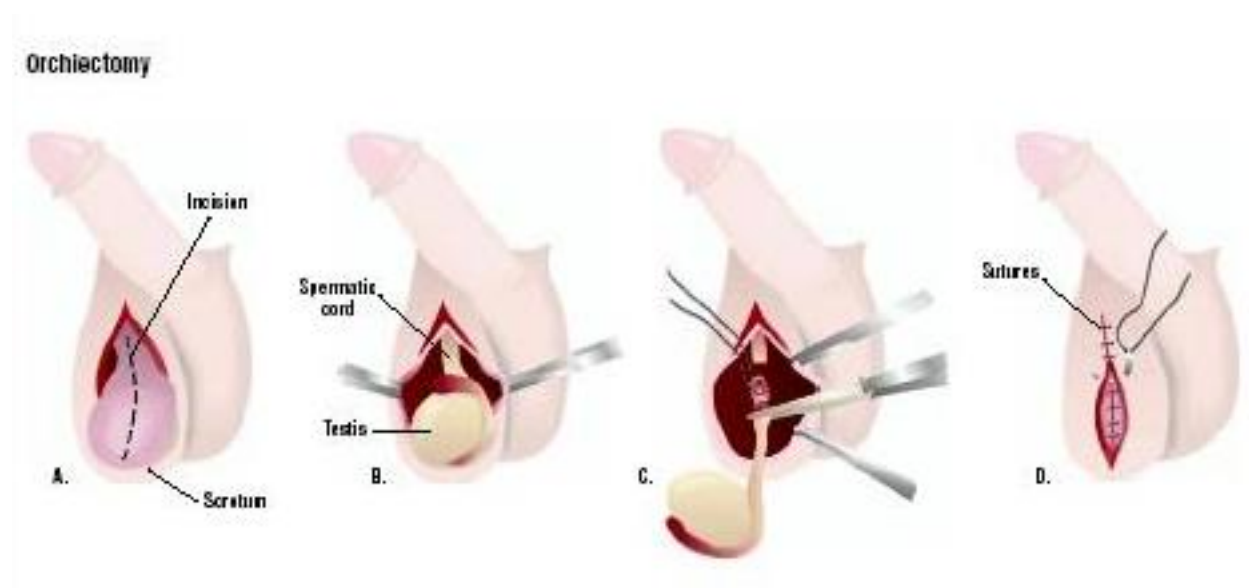


Image retrieved from: <https://www.surgeryencyclopedia.com/La-Pa/Orchiectomy.html>

Note: This procedure can be done with or without a scrotoectomy (removal of the scrotal skin). If scrotoectomy is performed, this will remove the tissue that we use to create the vaginal canal in gender affirming vaginoplasty. If you are considering future vaginoplasty, a scrotoectomy is **not recommended**.

Orchiectomy Schedule

The following schedule is a guideline of what your surgical journey might look like. It is not the same for everyone but will give you an idea of the major milestones so you can prepare.

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| <p>Initial Visits</p> | <ul style="list-style-type: none"> • You will have an initial consultation with nursing • You will have an in-person visit with the surgeon for a physical exam • You may be asked to meet with different members from the TRS team which may include nursing, pharmacy, anesthesia, or psychiatry • If all criteria are met for surgery, surgery can be scheduled |
| <p>Pre-Anesthesia Clinic</p> | <ul style="list-style-type: none"> • This appointment usually occurs in the weeks/days before your surgery • You will typically meet with the nurse but may also meet with different members of the anesthesia team which may include nursing, pharmacy, anesthetist |
| <p>Tasks before surgery</p> | <ul style="list-style-type: none"> • Smoking cessation (encouraged to reduce risk of wound healing complications) • Physical and mental health conditions are stable |
| <p>Day before surgery</p> | <ul style="list-style-type: none"> • Nothing to eat or drink after midnight |
| <p>Day of surgery</p> | <ul style="list-style-type: none"> • Can stop taking testosterone blockers the day of surgery • Arrive at the hospital 2- hours prior to your scheduled surgery time (you will be told a specific time to come by the pre-anesthesia team.) • Surgery usually takes about one hour • After surgery you will go to the Post Anesthesia Care Unit and when feeling able, discharged home (usually a few hours later). • You will need someone to pick you up from the hospital and stay with you overnight • Start with a light diet and advance to regular diet when able to |
| <p>Day after surgery</p> | <ul style="list-style-type: none"> • Light activity encouraged (i.e walking) • Bruising, swelling, numbness and/or shooting/burning pain can occur • Can remove dressing and shower 48 hours after surgery. Do <u>not</u> take a bath until the incision has fully healed (approximately 14 days, may be longer for scrotectomy) |

Following days-weeks

- The amount of time required off work will vary from person to person. Most individuals can go back within 1-4 weeks depending on the nature of your work
- No heavy lifting/ strenuous activity for 10-14 days
- First follow-up with surgeon will be 3-4 weeks after surgery
- There may be another follow-up scheduled sometime later to review pathology results if they are not back by your first follow-up appointment.
- Book an appointment with your hormone therapy prescriber to discuss change in estrogen dose, if you are on it

Preparing for Surgery

The following information has been developed to help you prepare for and recuperate from your surgery. Some people find preparing for surgery overwhelming; the sooner you start planning, the better you may feel.

Reproductive Health

If you are planning on having children or wish to explore the option of having children in the future, reproduction options may be an important factor to consider. Every person will have a unique journey in their decision making and planning around reproduction. Some may choose to pursue gender affirming care before reproductive planning, and others may decide to postpone surgery until they have a reproductive plan in place.

Choosing to move forward with lower surgery does not change your ability to become a parent, however it may limit some of the reproductive options available to you. After removal of the testicles, your body will no longer produce sperm. Should you wish to use your sperm for reproduction, you will need to arrange fertility preservation (sperm banking).

You may need to stop hormone replacement medications for a short time period prior to sperm banking. It is recommended to stop any hormone therapy for 3 months prior to scheduling a sperm banking appointment (as per Mount Sinai Fertility program). To arrange to bank a sperm sample, you will first need a referral by your primary care provider and then you will need to make an appointment with that specific center.

The approximate processing fee for sperm is about \$600 and there is an annual storage fee of \$480 per year (as per Mount Sinai Fertility program [at the time of publication, in 2023]). Some sperm banking is covered by the [Ontario fertility program](#).

For any additional information and resources- please refer to the following:

- [Mount Sinai Fertility](#)
- [The 519 \(fertility and parenting support classes\)](#)

- Rainbow Health Ontario, a program of Sherbourne Health, has a website with [LGBTQ health resources](#)
- Egale Canada 2SLGBTQI Family Planning videos: [Click Here](#)

Smoking

Smoking can interfere with how our tissues heal. Smoking anything (including cannabis) or consuming any product containing nicotine can result in delayed tissue healing. It is recommended that you avoid smoking anything or consuming any nicotine containing products prior to and after surgery to prevent any wound healing complications.

Alcohol

It is best to consume alcoholic beverages in accordance with Canada's Low-Risk Alcohol Drinking Guidelines. No alcohol should be consumed the day before surgery.

Nails

If you are wearing artificial or acrylic nails, please remove them. Your fingers will be used to monitor blood oxygen saturation during surgery.

Medications

Please ensure you have reviewed an up-to-date list of medications with your surgeon and your healthcare team. Also make sure to bring this list, or all your medications in their original containers, to your Pre-Admission Appointment.

Some common over-the-counter medications can interfere with the blood's ability to clot. Do not take herbal supplements or vitamins (including a multivitamin) for at least 7 days before surgery. If you are regularly taking aspirin, ibuprofen (e.g. Advil), or Naproxen (e.g. Aleve) please talk to your healthcare provider to see if these need to be stopped as well.

Time off work

You should anticipate needing 1-4 weeks off work for recovery. The amount of time will depend on how you feel and what kind of work you do. Each person's recovery period is different. Inform your employer that you may require some flexibility in returning to work, especially if your job requires heavy lifting.

Support

This is a day surgery procedure. You will need someone to pick you up and accompany you home from the hospital and stay overnight.

Preparation for Pre-admission

The pre-admission clinic is located at 76 Grenville Street on the 8th floor. If you need to call the pre-admission clinic you can contact them at (416) 323-6260. Your pre-admission appointment will take place before surgery and will take approximately 2 hours.

What will the Pre-admission clinic assessment include?

- Pre-registration for your surgery
- Interview with a nurse who will complete a health assessment
- Anesthesia and medical consults (if required)
- Pharmacy consult (if required)
- Pre-operative tests (if required)
- Instructions to prepare you for your surgery, your hospital stay and your discharge home
- On-boarding to MyChart- the hospital's electronic patient record system

What should I bring to the Pre-admission clinic visit?

- Health Card
- Any medications you are taking- including all herbal/vitamin supplements and over-the-counter medications (in the original containers) or an accurate up-to-date medication list
- Forms from your surgeon, such as your history and physical form and pre-operative questionnaire
- Letters/tests from specialist if indicated by your surgeons
- Support person (if desired)

Surgery

The day before surgery

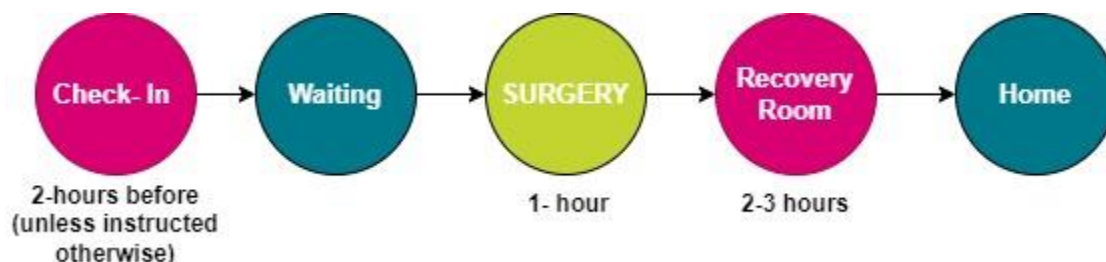
- Keep yourself well hydrated. Drink a lot of water and other fluids
- Do not drink any milk or dairy products, orange juice or other citrus juices. Do not drink any alcohol.
- Do not eat or drink after midnight. This includes gum, candy or water.

On the day of surgery

- You should bathe or shower the night before and the morning of surgery using an antibacterial soap
- Do not put on any make-up, wigs, jewelry, scents or creams
- Wear some loose-fitting clothes to the hospital and supportive underwear.
- You may take your medications as instructed by the pharmacist on the day of surgery with a small sip of water. You can stop taking testosterone blockers the day of surgery.
- Due to the limited waiting room space, we recommend that only one or two supports accompany you to the hospital. Your support persons are not required to stay at the hospital while you are in surgery.
- Check-in at the surgery reception desk on the 8th floor. You must arrive 2- hours prior to your surgery time, unless instructed otherwise.
- After you check in, you will be brought to a changing area where you will get into a surgical gown. You can leave your valuables in a locker here and your other items will be safely secured.
- After you are dressed in the surgical gown you have two options of where you would like to wait. 1) You can wait in the public waiting room with your family/supports or 2) You can wait in the internal wait room where there will be only a few other patients. Family/supports are unable to wait with you here.

Do not wear

- Jewelry; remove all body piercings. If this is impossible please tell the care team.
- Perfume/cologne, deodorant, body lotion/cream or scented products of any kind
- Makeup
- Coloured nail polish on fingers or false nails (nail polish on toes is acceptable)



After Surgery

You will wake up and have an IV in your hand or arm and a dressing over your genitals. Light diet and oral fluids can be started on the same after surgery. You will be going home the day of surgery and will be walking. During the first 24 hours, you may have some bleeding on the dressing over your genitals which is normal. You may also notice some bruising and swelling. The IV will be removed before you leave the hospital.

Sutures

The sutures (that close the incision) are dissolvable and can take 4-6 weeks to fully disappear. Some people may require more time, depending on their body and if any wound healing complications arise.

Pain and Medication

The pain/ discomfort one feels varies from one person to another. As part of the healing process, you should expect to have some mild-moderate discomfort or tenderness for 1-2 weeks. You should not expect the complete absence of pain following surgery. The goal of pain medications is to bring your pain down to a manageable level so you are able to do basic daily activities such as short walks and eating meals. Some things that might help include:

- Taking pain medications. Pain medications work in different ways and you can take all of acetaminophen (e.g Tylenol), ibuprofen (e.g Advil), and oxycodone if you need it. Start with the acetaminophen and ibuprofen (it can help to stagger these, e.g Tylenol at 6 and 12 o'clock and Advil at 9 and 3 o'clock) and then use oxycodone if your pain remains poorly controlled. The recommended doses of these medications are:
 - Acetaminophen (e.g Tylenol)- 500-1000mg every 6 hours, regularly scheduled for the first 5 days, then as needed. Do not exceed 4000mg of acetaminophen in a 24-hour period.
 - Ibuprofen (e.g Advil)- 400-600mg every 4-6 hours as needed for a maximum of 5 days in a row. Do not exceed 3200mg of ibuprofen in a 24-hour period. Ibuprofen should be taken with food.
 - Oxycodone- 5-10mg (1-2 tabs) every 6 hours as needed. Use this when you have already taken acetaminophen and ibuprofen and your pain is still poorly managed.
- Apply ice to the area frequently, in 10–20-minute intervals. Ice should not be applied directly to the skin.
- Rest. Rest maximizes the effects of medications, reduces stress and facilitates healing.
- Try other non-medical methods of pain relief like relaxation, music, talking to a friend, or a good TV show.

Swelling

All patients will have some swelling to variable degrees and is to be expected. Swelling can last between 3-4 weeks. Applying ice on the area intermittently for the first few days after surgery can help to alleviate this. Tight underwear may also be helpful to reduce swelling by mobilizing fluids in the tissues.

Bruising

Bruising is normal after surgery. It can be purple, gold or yellow- this is not to worry. Bruising is expected and can last 3-4 weeks.

Physical Activity

A balance between rest and activity is essential. Rest and resume your daily activities as soon as possible and according to your tolerance. Do not lift objects weighing more than fifteen pounds (or where you feel like you are straining) for 10-14 days after surgery.

Hygiene

The dressing can be removed 48 hours after surgery and the incision site left open to the air. Once the dressing is removed, you can take a shower. No soaking in a bathtub for 2 weeks (or longer if you are having wound healing issues). No harsh or scented soap products to be used directly over the incision. You can let water and soap rinse overtop of the incision site, and ensure you pat dry with a clean towel afterwards.

Driving

Do not drive for the first 24 hours after a general anesthetic. Driving requires the ability to perform quick, unimpeded, unpredictable movements. You should not drive if you are taking narcotic pain medications (i.e Oxycodone).

Sexual Function

There are no specific restrictions in terms of sexual activity however avoid any strenuous activity including intimacy for at least 1-2 weeks.

Hormones

There is no need to hold any hormone medications pre-surgery. You can stop taking testosterone blocker the day of surgery. You should speak with your hormone prescriber regarding estrogen, if taking, and the required dose adjustments post-surgery.

Possible Complications

Hematoma

The most common risk of an orchiectomy is hematoma, or bleeding into the scrotum. It is common for the scrotum to be bruised, swollen and tender for 3-4 weeks after surgery. However, a large, purple appearing scrotum can indicate a hematoma. Scrotal hematomas may occur because a tiny vein was cut during the procedure and the blood flows downwards causing it to pool and fill up. This small cut will close over on its own, however there may be noticeable symptoms and mild-moderate discomfort with the hematoma that can last a few weeks.

Hematomas can range from small to large in size. The larger the hematoma, the more painful it may be. As well, a palpable mass (similar to the feeling of a testicle) may be felt. This palpable mass may be dysphoric for some individuals, as it can mimic the feeling of a testicle. Hematomas can take 4-6 weeks, or longer, to resolve. They will typically resolve spontaneously on their own with time. You can help the swelling and discomfort by applying ice (10-20 minutes at a time with a thin cloth between the ice and the skin) and wearing tight fitting undergarments (help with the swelling). If the hematoma is worsening and not improving, or you have any concerns- please contact your TRS team for follow-up and assessment.

Numbness/ Loss of Sensation

Numbness and/or loss of sensation in certain areas around the surgical site may occur and can last up to a few weeks. While it may be permanent, it is often temporary and may improve with time.

Infection

As with any surgical procedure, risks of an orchiectomy include infection. Signs and symptoms of infection are:

- Increased pain, swelling, warmth, or redness
- Red streaks spreading away from the incision site
- Pus (thick yellowish-white fluid) draining from the incision
- A fever (oral temperature of $>37.8^{\circ}\text{C}$ ($>100.8^{\circ}\text{F}$))

If you show any signs or symptoms of infection, please reach out to the TRS team via MyChart to receive further instructions/assessment.

Bleeding from Incision

There is a risk that you may bleed from the incision area after surgery. There will be a

dressing placed over the incision site that can be removed in 48-hours. It is normal to have a small-moderate amount of bleeding on the dressing, but you should not see the dressing saturated (soaked and leaking) with blood. If you are needing to change the dressing because of bleeding- please reinforce the dressing with gauze to control the bleeding, secure with over-the-counter medical tape and contact your TRS team for further instructions.

Incision Separation

The incision may become separated when too much stress or tension is on the stitches that are used to close it. This can happen with heavy lifting (>15 pounds) and strenuous exercising (i.e riding a bike, jogging, weightlifting, or aerobic exercise). Avoid any heavy lifting/strenuous exercise for 10-14 days after surgery to minimize the risk of wound healing complications.

Incisions can also separate when wounds don't heal correctly. People that smoke or have certain chronic illnesses (i.e diabetes) may be at higher risk for this. Please contact your TRS team if any wound healing issues occur.

Chronic Pain

All surgery has the potential to cause chronic pain, that is, pain that does not resolve within 3 months of the surgery. If you develop chronic pain, contact the team so we can help with management strategies. It is not always possible to cure (completely resolve) the pain.

Accessing Medical Care

MyChart is the best way to contact your clinical team. Please open MyChart app, use "Ask a Question" then "TRS Provider" and type in your question. Questions will be answered within 2 business days.

If you are feeling very unwell, e.g. unresolving fever, severe nausea/vomiting, dizziness, severe unrelenting pain, please seek urgent medical care by presenting to your closest emergency department. You can send us a message, so we are aware, but do not wait for a response if you feel you need urgent medical care.

References

[Rainbow Health Ontario](#)

[Trans Care BC](#)

[Mount Sinai Fertility](#)