

Orchiectomy



A summary for primary care providers

This summary provides information to facilitate discussion of transition-related surgery between primary care providers and patients. It is not exhaustive and does not replace the informed consent process between surgeon and patient.

DESCRIPTION

Orchiectomy is the removal of the testes (testicles) and spermatic cord.

SURGICAL TECHNIQUES AND OPTIONS

- Scrotal incision (most common) or inguinal (groin) incision
- Can be done with or without scrotoectomy (removal of scrotal sac)
- General, spinal, or local anesthetic
- Day surgery
- Prostate is retained

INTENDED RESULTS

- ✓ Reduces gender dysphoria by aligning anatomy with gender identity
- ✓ Eliminates main source of endogenous testosterone production and its effects
- ✓ Patients can often stop or at least significantly reduce androgen-blockers
- ✓ Some patients may be able to decrease their estrogen dose

SIDE EFFECTS

- Irreversible
- Permanent infertility (no longer producing sperm)
- Almost no testosterone production - puts patient at risk for osteoporosis if a sex hormone is not used
- Side effects of low testosterone may include erectile dysfunction, decreased libido, and decreased energy

ALTERNATIVE TREATMENT OPTIONS

- "Tucking" genitals
- Medications: androgen blockers, GnRH analogues
- Vaginoplasty (surgical construction of vagina & vulva which includes simultaneous orchiectomy)

SURGICAL RISKS AND COMPLICATIONS OF ORCHIECTOMY

- If scrotoectomy (removal of scrotal tissue) is performed, this will remove tissue that often is used to create the vaginal lining during vaginoplasty. Depending on the vaginoplasty technique, additional skin grafts (e.g. from the upper thighs) may be required
- Scrotal or retroperitoneal hematoma
- Numbness/loss of sensation in certain areas around the surgical site, often temporary
- Stumps of spermatic cords may be palpable

POTENTIAL RISKS/COMPLICATIONS COMMON TO MOST SURGERIES

- ! Risks are increased with smoking, immunosuppressant drugs, clotting disorders, conditions that impair healing, BMI <18.5 or >30
- Bleeding
- DVT, PE (blood clots in legs, lungs)
- Injury to surrounding anatomical structures (organs, nerves, blood vessels)
- Hematoma (collection of blood)/seroma (collection of fluid)
- Infection/abscess (collection of pus)
- Wound dehiscence (wound opening), delayed healing
- Nerve damage, loss of sensation, hypersensitivity, neuropathic (nerve) pain
- Chronic pain
- Scarring (can be prominent especially if history of keloid)
- Dissatisfaction with appearance/function
- Need for revision(s)
- Post-operative regret

General Anesthetic Risks:

- Respiratory failure
- Cardiac failure/arrest
- Death
- Damaged teeth
- Aspiration pneumonia
- Nausea/vomiting

PRE- AND POST-OPERATIVE CARE

PRE-SURGICAL CARE

PRE-SURGICAL CONSIDERATIONS

- Fertility counselling +/- sperm banking
- Post-orchietomy continuous exogenous sex hormone is recommended to address the increased risk of osteoporosis, as long as it is deemed medically safe and beneficial
- Smoking cessation is strongly recommended both pre-op and post-op to optimize wound healing
- Follow surgeon's advice on time periods to avoid smoking, alcohol and other substances
- Consider pros/cons of scrotoectomy, as it may affect tissues later used for vaginoplasty
- Orchiectomy can be done at the same time as vaginoplasty rather than as a separate procedure
- Patients should ask their surgeon if there are any additional fees that are not OHIP covered

Each surgical centre has a routine pre-operative process, patients should ask their surgeon what to expect

Hospitals tend to have standard pre-operative processes which may include:

- Pre-admission visit to review health history and provide teaching (pre/post-op care)
- Anesthesia and/or medicine consult may be required, depending on health history
- Anesthesia will discuss:
 - which medications to stop and when
 - anesthetic approach and risks
 - pain control measures

IMMEDIATE PRE-OPERATIVE CARE

- Consult your surgeon regarding when to stop medications (hormones, blood thinners, aspirin, herbal remedies)

POST-SURGICAL CARE

IMMEDIATE POST-OPERATIVE CARE

- Care of incision site
- Bruising, swelling, numbness and/or shooting/burning pain can occur
- Activity levels – light activity encouraged (such as walking)

INTERMEDIATE POST-OPERATIVE CARE

- No heavy lifting/strenuous activity for 2-3 weeks

LONG-TERM MEDICAL CARE

- Androgen blocker can be stopped or tapered over 4-6 weeks post-operatively

Estrogen dose post-orchietomy:

- Depending on pre-op estrogen dose, dose reduction may be considered as long as it is adequate to maintain bone density. Adequacy of dosing in those on low estrogen replacement post-orchietomy may be assessed by following LH and FSH levels

Minimize risk for osteoporosis:

- Ensuring long-term exogenous sex hormone replacement (estrogen)
- Monitor LH and FSH levels to assess if hormone (estrogen) dosage is adequate for bone health
- Ensure adequate calcium and vitamin D intake
- Reduce smoking
- Weight-bearing activity
- Consider bone densitometry for anyone post-orchietomy, who has not taken exogenous hormones for 5 years or more, regardless of age

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DISCLAIMER

The information provided here is generalized and is not medical advice. It is recommended that all patients have a pre-operative consultation with their surgeon to receive individualized information including the specific surgeon's technique, complication rates and recommendations. This is a dynamic document that is subject to change, as the knowledge of transition-related surgeries changes.

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