

Hysterectomy and Bilateral Salpingo-Oophorectomy

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

Hysterectomy: removal of the uterus

- **Total Hysterectomy** = removal of the entire uterus including the cervix
- **Subtotal Hysterectomy** = removal of most of the uterus, but not the cervix

Bilateral Salpingo-Oophorectomy (BSO):

- **Bilateral Salpingectomy** = removal of both fallopian tubes
- **Bilateral Oophorectomy** = removal of both ovaries

INTENDED RESULTS

- ✓ Reduces gender dysphoria by aligning anatomy with gender identity
- ✓ Stops menses, breakthrough bleeding, menstrual pain
- ✓ With total hysterectomy (and no history of gynecologic cancer), individuals no longer require pap smears
- ✓ Removes ovaries which is the main source of estrogen
- ✓ After surgery, sometimes an individual's testosterone dose may be lowered
- ✓ Allows for vaginectomy and scrotoplasty

ALTERNATIVE TREATMENT OPTIONS

- Hysterectomy only (without BSO)
- Hormone therapy (testosterone) to stop menses
- GnRH analogues to stop ovulation and stop menses
- Hormonal IUD to induce amenorrhea/oligomenorrhea (stop menses or lighten menses)

SURGICAL TECHNIQUES AND OPTIONS

1. **Vaginal hysterectomy:** incision is through the vagina, uterus/tubes/ovaries removed through vagina
2. **Laparoscopic hysterectomy:** 3-4 small abdominal incisions, each around 1 cm, uterus/tubes/ovaries are removed through incisions
3. **Laparoscopically assisted vaginal hysterectomy (LAVH):** incision through vagina, removal of uterus/fallopian tubes/ovaries through vagina, with laparoscopic help
4. **Abdominal Hysterectomy:** uterus removed through one large incision through the abdomen

SIDE EFFECTS

- Irreversible
- Permanent Infertility (no longer producing eggs)
- Permanent removal of uterus (inability to use uterus for carrying embryo)
- Almost no estrogen production (puts patient at risk for osteoporosis if an exogenous form of sex hormone is not used)

SURGICAL RISKS AND COMPLICATIONS OF HYSTERECTOMY AND BSO

- Accidental damage to surrounding tissues such as bowel perforation, injury to bladder, rectum, or other internal organs
- Accidental damage to blood vessels which may be needed for future phalloplasty (inferior epigastric, circumflex iliac)
- Urinary tract injury and/or infection
- Vaginal prolapse (vaginal vault falls out of its original position)
- Fistulas (abnormal connection, which allows fluids/solids to pass between two structures that should not be connected)
 - Uro-vaginal (abnormal connection between bladder and vagina)
 - Recto-vaginal (abnormal connection between rectum and vagina)
 - Ano-vaginal (abnormal connection between anus and vagina)
- Changes in sexual sensation or decreased intensity of orgasm
- Decreased libido
- Ovarian remnant syndrome (pain and bleeding if some ovarian tissue is left behind)
- Vaginal cuff bleeding (bleeding from the top section of vagina which was closed)
- Hot flashes/night sweats and other symptoms of oophorectomy if no exogenous sex hormone is used

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

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| <ul style="list-style-type: none">• Bleeding, if excessive may require blood transfusion• Blood clots (DVT, PE)• 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 | <ul style="list-style-type: none">• Nerve damage, loss of sensation, hypersensitivity, neuropathic (nerve) pain• Chronic pain• Scarring (can be prominent especially if history of keloid)• Dissatisfaction with appearance/function• Post-operative regret | General Anesthetic Risks: <ul style="list-style-type: none">• Respiratory failure• Cardiac failure/arrest• Death• Damaged teeth• Aspiration pneumonia• Nausea/vomiting |
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PRE- AND POST-OPERATIVE CARE

PRE-SURGICAL CARE

PRE-SURGICAL CONSIDERATIONS

- Consider referral to the Sherbourne Health Centre ARC (Acute Respite Care) if socially isolated, under-housed or homeless
- Fertility counselling +/- egg preservation, since hysterectomy + BSO will lead to permanent loss of fertility
- Post-oophorectomy, continuous exogenous sex hormone is recommended to address increased risk of osteoporosis, as long as 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
- If planning future metoidioplasty (more than just simple clitoral release) or phalloplasty, most surgeons require the hysterectomy+BSO be completed at least 6 months prior
- If considering future lower abdominal flap phalloplasty, avoid transverse hysterectomy scars "pfannestiel incisions" in abdominal hysterectomies as the transverse incision disrupts flap vasculature. Vertical abdominal incisions are preferred

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

Discuss aftercare plan and social supports. Typical recovery is 2 weeks rest, complete recovery from LAVH is 4-6 weeks, and complete recovery from abdominal hysterectomy is 6-8 weeks

POST-SURGICAL CARE

IMMEDIATE POST-OPERATIVE CARE

- Monitor for excessive vaginal bleeding
- Monitor for signs of infection
- Incision care
- Pain management

Follow surgeon's recommendations on restrictions to activities. Some general guidelines include:

- No lifting for 2 weeks (laundry), avoid stretching or bending for 2 weeks
- No heaving lifting (max 10 lbs)/strenuous activity for 6 weeks
 - No vigorous exercise for 3 months

LONG-TERM MEDICAL CARE

Testosterone dose post-oophorectomy:

Depending on the testosterone dose prior to oophorectomy, dose reduction may be considered as long as it is adequate to maintain bone density. Patients should be informed of possible reduced muscle mass, energy and libido at lower doses. Adequacy of dosing in those on low testosterone replacement post oophorectomy may be assessed by following LH and FSH levels and titration of dosing to maintain these in the premenopausal range

Minimize risk for osteoporosis:

- Ensuring long-term exogenous sex hormone replacement (testosterone)
- Monitor LH and FSH levels to assess if hormone (testosterone) dosage is adequate for bone health
- Calcium and Vitamin D
- Reduce smoking
- Weight bearing activity
- Consider BMD for anyone post-oophorectomy, who has not been on hormones for 5 years, 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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