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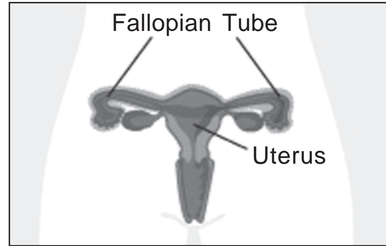
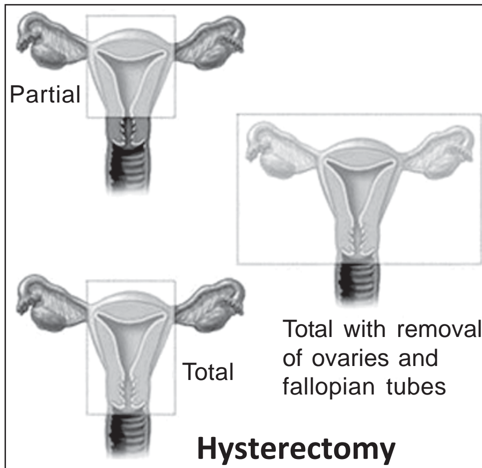
Gender Reassignment Surgery - Female to Male

FtM GRS consists of the removal of primary characteristics of a female such as ovaries, fallopian tubes, uterus etc and construction of a penis. These involve the procedures described below.



Hysterectomy and Bilateral Salpingo-Oophorectomy



Hysterectomy is the process of removal of the uterus. Bilateral Salpingo-Oophorectomy (BSO) is the removal of both the ovaries and fallopian tubes.

A ‘partial hysterectomy’ is actually when the uterus is removed, but the cervix is left intact. If the cervix is also removed, it is called a ‘total hysterectomy.’

Metoidioplasty

Metoidioplasty is phallic clitoral enlargement, enabling urinating while standing. It is derived from the Greek words, ‘meta’ meaning toward, ‘oidion’ meaning male organs and ‘plasty’ meaning formation. Metoidioplasty is based upon the surgical release of a clitoris that has been primed on testosterone. A patient going in for the surgery can reasonably anticipate the outcome of the surgery based upon the length of the clitoral body and size of her glans clitoris pre-operatively. One can expect a juvenile sized phallus at best, without it having the ability to penetrate. Overweight patients may achieve greater length with pubic lipectomy which recesses the body surface line.

How is Metoidioplasty done?

The procedure confers the advantage of minimal surgery with preservation of natural sensation and erectile function. First gynecologists perform an ovariohysterectomy. Then they elevate the anterior vaginal flap through the abdominal approach. The elevation is completed transvaginally, just to the dorsal part of the urethral orifice, by plastic surgeons. The vaginal mucosa is restructured and colpocleisis (surgical closure of the vaginal canal) is accomplished.

After the abdominal wall is closed, the surgeons perform a metoidioplasty. Fat from the neighbouring

area is abstracted to make a phallus. By restructuring of the chordee, the clitoral shaft is released and abdominally advanced. The neo urethra is constructed by suturing the vestibular skin, the vaginal mucosal flap and the labial flap around the urethral catheter in a watertight fashion.

The estimated blood loss is about 500 ml and the total operating time is around 6 hours. The total hospital stay required for the patient is about 14 days.

For those patients who desire to urinate while standing after this sex change procedure, the urethra is extended into the neo penis. This objective may be accomplished simultaneously or performed secondarily using either a vaginal flap or buccal mucosal (mucous membrane of the inside of the cheek) graft.

Phalloplasty

A free-flap phalloplasty or penile lengthening is the second stage of the FtM conversion.

There are two surgical procedures involved here and they are:

1. **Penis girth enhancement**[1]
   Thickening of the penis or girth enhancement is done by sucking fat from patient's pubic mound, abdomen and waist and injecting this fat underneath the skin of his penile shaft.

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[1] All patients considering girth enhancement must be circumcised as there will be post-operative swelling which may impede retraction of foreskin for daily hygiene.

Penile girth enhancement can be performed by one of three techniques:

a) Placement of dermal-fat grafts:
   Dermal-fat grafts are harvested from the lower abdomen or buttocks area (actually upper thigh just below the crease) and are associated with graft contracture, which may result in palpable fibrous cords and penile shortening.

b) Insertion of acellular dermal matrix strips:
   An acellular cadaveric dermal matrix product is capable of stimulating an ingrown of connective tissue with blood supply. It eliminates the need for taking donor fat or dermis from one part of the body to another.

c) Insertion of liposuctioned fat:
   This involves the removal of fat from local fat stores, such as the abdomen and buttocks and its subsequent injection into the penis. The surgeon then hand moulds the injected fat into the desired shape.

2. Penis lengthening

Penis lengthening procedures involve dividing the hidden ligaments suspending the penis from the underside of the pubic bone. This will cause the penis to protrude roughly an inch and a half forward. This increase is permanent provided he wears the penis traction device (page 410) for a total of 1 hour a day for about 4 months.

With phalloplasty, the necessity for staged procedures is predictable and the revision rate is often quite high. This process of constructing a penis is tedious and more expensive, as compared to metoidioplasty but is the more effective of the two.