2 STAGE URETHROPLASTY OR MEATOPLASTY

Meatal stenosis is narrowing of the distal end of the urethra (the tube through which one passes urine) and the opening or eye of the penis. This tends to cause obstructive urinary symptoms and spraying of urinary stream, and without treatment may cause bladder thickening, distension and dysfunction. Significant narrowing should therefore be treated. It may be present from birth (congenital) or may be acquired from previous surgery or catheterisation, or from infections or skin diseases affecting the penis. BXO (balanitis xerotica obliterans) is the commonest of these skin diseases, involving the foreskin, glans and urethra, and can occasionally affect skin elsewhere in the body. The cause is unknown, it generally does not respond to medication, and it tends to progress.
In the absence of BXO, simple meatal stenosis can be managed with a minor procedure to widen the opening, and thereafter self-dilatation to maintain this. For longer strictures - scar tissue extending into the urethra - and where there is BXO, a formal meatoplasty is needed, removing the diseased, scarred tissue.
Meatoplasty is a 2-stage procedure. The initial operation generally involves opening the narrowed meatus, with excision of the scarred segment and grafting tissue taken from the lining of the mouth. The grafted area is initially left open and the urethral opening is thus temporarily further back along the underside of the penis and the graft is allowed to mature over 6 months before re-tubularisation at a 2nd operation. It may be necessary to perform circumcision at the time of the initial (first stage) operation. Both operations are performed under general anaesthetic.

Initial procedure: The scarred area is excised and mouth (buccal) mucosa is taken from inside of the cheek. A suprapubic catheter is left 2 weeks for bladder drainage and a urethral catheter for 14 days for graft compression.

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- microlax enema morning of the procedure for afternoon procedures, evening prior for morning procedures
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: limited mobilisation / bedrest
- day 2: discharge home on antibiotics with catheters in place ; keep penis and indwelling urethral catheter taped up onto abdomen.
- saline mouthwashes for comfort

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- activities restricted by catheters for 2 weeks
- continue saline mouthwashes for comfort
- continue antibiotics x 1 week
- withhold aspirin and other anticoagulants for 1 week but reinstate other usual medications

- post-operative constipation is a common problem and may be minimised with good fluid intake, dietary fibre and laxatives.
- avoid heavy lifting for 2 weeks
- return to clinic at 2 weeks for removal urethral and suprapubic catheter, take down of all dressings
- resume full normal activity by 4-6 weeks including sexual intercourse
- the graft should be protected by a condom during intercourse until 2nd stage procedure

Second procedure: re-tubularisation of the urethra after 6 months

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- microlax enema morning of the procedure for afternoon procedures, evening prior for morning procedures
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: discharge home on antibiotics with catheters in place

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- activities restricted by catheters for 2 weeks
- continue antibiotics x 1 week
- withhold aspirin and other anticoagulants for 1 week but reinstate other usual medications
- the urethral catheter and penis must remain immobilised and taped on the abdomen for 2 weeks
- urethrogram at 2 weeks with removal of urethral catheter in Radiology
- return to clinic at 2 weeks for removal of suprapubic catheter, take down of all dressings
- avoid heavy lifting for 2 weeks
- resume full normal activity by 4-6 weeks including sexual intercourse
- follow up flexible cystoscopy at 3-6 months

WHAT CAN GO WRONG:

Although most cases proceed without particular difficulty and have excellent outcomes, surgical complications occur overall in 5% of patients. The most common and bothersome is restricturing, which may reflect an underlying process affecting the urethra. Hence the follow up flexible cystoscopy at 6 months. Restricturing may be treated with dilatation, telescopic incision or revision meato/urethroplasty. The appearance of the glans is altered somewhat by the surgery, but is generally cosmetically acceptable. BXO itself may cause unsightly scarring.

The list below details potential complications recognised as common or serious, but this does not include the rare and extraordinary. Risk of death is approximately 0.03% in generally healthy patients.

AT THE TIME OF AND EARLY AFTER SURGERY:

- Bleeding requiring blood transfusion in < 1%
- Infection may require antibiotic treatment <3%
- Numbness or tingling in legs, genitalia and perineum is usually temporary
- Risk of death may be estimated using the nzRISK https://nzrisk.com on-line pre-operative calculator. It has been developed and validated for patients in New Zealand over the age of 18, to help patients and doctors balance benefits and risks of treatment.

LATER POTENTIAL COMPLICATIONS :

- Recurrent stricture
- Urethral fistula
- Post void dribbling and spraying of stream is common