

# Urethroplasty

## Coder guidance on procedure coding

**BAUS audit steering group**

**GIRFT clinical coding team**

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# Urethroplasty

## What is this document for?

The purpose of this document is to provide supplementary information to help clinical coders gain a better understanding of the nature of urethroplasty procedures and the OPCS-4 codes that most accurately describe them, together with why and how procedures are performed. It also provides examples of different clinical terms that may be used by healthcare professionals in a patient's medical record.

Understanding the relevant disease process and related procedures assists clinical coders to assign codes accurately and consistently in accordance with the national clinical coding standards. The information contained within this document is produced by the GIRFT clinical coding team in collaboration with the BAUS Audit Steering Group.

All clinical codes used in this guidance are taken from OPCS-4.10 which is valid from April 2023.

## What is this document not for?

This document does not cover the coding process in detail and does not cover specific index trails or national standards. The code examples do not replace or contravene national coding standards.

## Included

Procedures to treat strictures or abnormal narrowing of the urethra.

Procedures for reconstruction of traumatic injury of urethra.

Any questions or feedback regarding the information within this document should be directed to:

[england.girft.coding@nhs.net](mailto:england.girft.coding@nhs.net)

Queries relating to the application of ICD-10 and OPCS-4 classifications codes and the national clinical coding standards should be directed to [information.standards@nhs.net](mailto:information.standards@nhs.net).

# Anatomy of the urethra

The urethra is a tube responsible for transporting urine from the bladder to outside of the body. Its course is different in females and males, with an average length in females of less than 4cm and about 20cm in males. Due to its close association with the reproductive organs in males its structure is very different. The male urethra is divided into anterior and posterior regions.

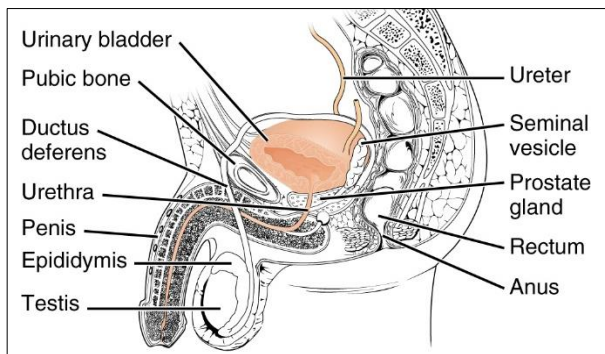
## Posterior male urethra

- ◆ **Prostatic urethra** - this section is approximately 3cm in length and passes through the prostate gland.
- ◆ **Membranous urethra** – this section is approximately 1cm in length and passes through the deep muscles of the perineum

## Anterior male urethra

- ◆ **Bulbar urethra** – traverses the root of the penis.
- ◆ **Penile urethra** – this is the longest section and passes through the corpus spongiosum of the penis and exits at the tip (external urethral orifice) of the penis.

From April 2023 there are new site codes in OPCS-4 that differentiate parts of the male urethra (category O53 at the end of the Z chapter) and these codes are used in some of the code examples below.



**Figure 1:** The male urethra

Source: <https://openstax.org/books/anatomy-and-physiology>

## Diagnoses requiring urethroplasty

Stricture, or abnormal narrowing, of the urethra is the most common diagnosis which would require a urethroplasty or urethrostomy. The stricture may be caused by an infection that has resulted in the formation of scar tissue. It may also be idiopathic or secondary to previous instrumentation (e.g. catheterisation).

Other conditions which may require urethroplasty include:

- Lichen sclerosus (also known as Balanitis Xerotica Obliterans, BXO)
- Hypospadias, a congenital condition in which the opening of the urethra is on the underside of the penis instead of the tip
- Rupture of urethra as a result of traumatic pelvic fracture (known as Pelvic Fracture Urethral Distraction Defect PFUDD)

## Urethroplasty

Urethroplasty is a surgical procedure which aims to restore the normal calibre to the urethra, enabling urine to flow freely. The procedure is most often used where a stricture has developed as a result of injury, congenital malformation or infection or is a recurrence of a previous stricture. This is an open procedure and is not the same as a urethral dilatation or endoscopic optical urethrotomy which do not require any external incisions.

In general, scar tissue can be excised, or incised and grafted, to increase the calibre of the urethra. There are four types of urethroplasty performed which are listed below - the two most common are bulbar and penile. Urethroplasties are more commonly performed in males, but when performed in females follow the same principles.

- Bulbar urethroplasty
- Penile urethroplasty
- Posterior urethroplasty
- Perineal urethrostomy

Approximately 760 urethroplasties are performed in the UK annually. They can be broken down as follows (based on BAUS audit data over a seven-year period):

- Bulbar anastomotic – 17%; Bulbar augmentation – 47%
- Posterior urethroplasty – 5%
- Penile urethroplasty – single stage – 9%; Penile urethroplasty – 2 or more stages – 19%
- Perineal urethrostomy – 3%

## Bulbar urethroplasty

Bulbar urethroplasty involves repair to the section of urethra which is underneath the scrotum in the perineum. The aim of surgery is to repair the bulbar urethra where there is stricture. It involves a midline incision in the perineum to expose the urethra. The repair of the urethra may involve the use of grafts and can be performed using a range of methods (see below). A catheter is inserted at the end of the procedure.

### Transecting anastomotic bulbar urethroplasty

Surgery may consist of excision of the affected urethral segment (if the stricture is 2-3cm or less in length) and then re-joining the healthy urethral ends.

**Table 1: Example of codes for transecting bulbar anastomotic urethroplasty**

Code	Code definition
M73.6	Urethroplasty NEC
O53.2	Bulbar urethra

### Augmentation/substitution buccal patch bulbar urethroplasty

Augmentation or substitution urethroplasty involves incising the affected segment (for longer strictures) and augmenting the urethra (increasing the calibre) with a graft (usually buccal mucosa). This is the most common type of bulbar urethroplasty. In this context the words augmentation and substitution mean the same thing - graft of tissue to the urethra.

**Table 2: Example of codes for augmentation/substitution buccal patch bulbar urethroplasty**

Code	Code definition
M73.6	Urethroplasty NEC
Y69.5	Harvest of buccal mucosa
Z25.8	Specified mouth NEC
O53.2	Bulbar urethra

## Non-transecting anastomotic bulbar urethroplasty

Sometimes the stricture is very short and can be excised without having to completely divide the urethra.

**Table 3: Example of codes for non-transecting anastomotic bulbar urethroplasty**

Code	Code definition
M73.6	Urethroplasty NEC
O53.2	Bulbar urethra

## Augmented anastomotic bulbar urethroplasty

Augmented anastomotic urethroplasty involves a combination of stricture excision and augmentation with a buccal graft. It may be required for long and heavily scarred strictures.

**Table 4: Example of codes for augmented anastomotic bulbar urethroplasty**

Code	Code definition
M73.6	Urethroplasty NEC
Y69.5	Harvest of buccal mucosa
Z25.8	Specified mouth NEC
O53.2	Bulbar urethra

All the bulbar urethroplasty operations described above are single stage procedures which take between two and five hours to perform. Buccal grafts are harvested from the buccal mucosa of the mouth (inner cheek) – this is often done by the urological surgeon although sometimes with the assistance of an ENT colleague.



## Penile urethroplasty

Penile urethroplasty can be a single stage or two stage surgical procedure depending on the underlying pathology. The aim is to reconstruct the penile urethra where a urethral stricture exists, involving the segment which extends from the tip of the penis – the meatus – to the junction with the bulbar urethra at the base of the penile shaft. Some strictures extend from the penile urethra into the bulbar urethra and procedures should be coded with two site codes when there is involvement of two segments.

Where two stages are performed, the first involves excision of the affected urethra and replacing it with a flat buccal mucosa graft, and then the second stage involves “tubularising” the tissue to reform a urinary channel/pipe to restore normal anatomy.

### Single stage penile urethroplasty

In single stage penile urethroplasty, the penis is either degloved or a ventral midline incision is made to expose the penile urethra. The affected segment is incised, and the calibre increased by augmenting the urethra with either a local skin flap (often the foreskin, if available) or a graft (buccal mucosa from the inner cheek or, much less likely, lingual mucosa from the tongue). Foreskin would not be used if the patient has lichen sclerosus as the skin would be damaged and therefore unsuitable.

**Table 5: Example of codes for single stage penile urethroplasty using tongue (lingual graft)**

Code	Code definition
M73.6	Urethroplasty NEC
Y69.8	Other specified harvest of other tissue
Z25.5	Tongue
O53.3	Penile urethra

Note: the codes for lingual graft are provided here as an example but the use of buccal graft (e.g. Table 4) is much more common in urethroplasty.

**Table 6: Example of codes for single stage penile urethroplasty using flap of foreskin**

Code	Code definition
M73.6	Urethroplasty NEC
Y56.8	Other specified harvest of random pattern flap of skin from other site
Z42.6	Skin of prepuce
O53.3	Penile urethra

Note: there are no distant flaps used for urethroplasty, only local flaps, and so “local” is not usually specified by the surgeon. Flaps are transfers of tissue with their own blood supply. Grafts do not have their own blood supply.

If the urethra has significant amounts of scar tissue, the affected segment is reconstructed in a single stage procedure with a combined graft and flap. The urethra is repaired over a catheter which stays in place for approximately two weeks. The same grafts and flaps as described above may be used.

**Table 7: Example of codes for single stage penile urethroplasty using flap of foreskin and buccal mucosa graft**

Code	Code definition
M73.6	Urethroplasty NEC
Y56.8	Other specified harvest of random pattern flap of skin from other site
Z42.6	Skin of prepuce
Y69.5	Harvest of buccal mucosa
O53.3	Penile urethra

## Two/multistage penile urethroplasty

Staged penile urethroplasty is often required where strictures have been caused by lichen sclerosus or where multiple procedures for hypospadias have taken place previously.

The first stage urethroplasty involves opening the urethra on the ventral aspect (underside) of the penis, from the tip along to normal urethra further down the penis. The scarred urethra is excised (urethrectomy) and replaced with a buccal graft harvested from one or both inner cheeks. The grafts are quilted onto the penis where the original urethra was located, and a catheter is inserted. The catheter is usually removed between one to three weeks later.

**Table 8: Example of codes for two/multistage penile urethroplasty using buccal mucosa graft (first stage)**

Code	Code definition
M73.6	Urethroplasty NEC
Y69.5	Harvest of buccal mucosa
Y70.3	First stage of a staged operation NOC
O53.3	Penile urethra

The second stage involves tubularising the healthy graft to form a new urethra which opens at the tip of the penis over a catheter. This can only be done if the graft is healthy and has developed a good blood supply; for this reason, the second stage will only be considered after a minimum of three months following the first stage. If the graft has failed or is scarred, the first stage is repeated – which is why this type of urethroplasty can become multistage.

**Table 9: Example of codes for two/multistage penile urethroplasty using buccal mucosa graft (second stage)**

Code	Code definition
M73.6	Urethroplasty NEC
Y27.4	Attention to graft of organ NOC
Y71.1	Subsequent stage of a staged operation NOC
O53.3	Penile urethra

## Bulbar and penile urethroplasty

In some patients the stricture may extend from the bulbar urethra into the penile urethra, in which case the urethroplasty will involve both these sections of urethra. In these cases, two urethra site codes should be used (O53.2 Bulbar urethra; O53.3 Penile urethra).

## Posterior urethroplasty (for pelvic fracture urethral distraction defects - PFUDD)

In pelvic fracture urethral distraction defects (PFUDD) the urethra is ruptured due to a traumatic pelvic fracture. Approximately 50 urethroplasties for PFUDD are performed each year in the NHS. It is more commonly performed in males than females and is mostly managed in trauma centres. This procedure brings the urethra back to the bladder neck. There is some variation in complexity to these operations.

Pelvic fractures from high-energy blunt force trauma can cause injury to the posterior urethra in approximately 5-10% of cases. (The posterior urethra is composed of the membranous urethra and the prostatic urethra.) In some of these, the urethra will be completely ruptured, and the initial management is typically placement of a suprapubic catheter. Surgery is usually delayed for 3-6 months and then the urethral ends are re-joined after excising the scar tissue which has formed at the site of rupture. This is complex surgery and various manoeuvres may be required to approximate the ends of the urethra. Surgery involves a midline perineal incision and, rarely, an abdominal incision. The urethra is repaired over a catheter which is usually removed after 2-3 weeks. This operation does not involve harvesting of buccal grafts.

**Table 10: Example of codes for posterior urethroplasty (for PFUDD)**

Code	Code definition
M73.6	Urethroplasty NEC
O53.1	Prostatic urethra

## Perineal urethrostomy

This procedure, only performed in males, involves creating a new urethral opening through the perineum and may be a good option, either where a urethroplasty is not desirable or has previously failed, or where very long strictures have developed. Urine does not then need to flow the whole length of the urethra before being expelled. An incision is made in the perineum (area between the scrotum and the anus) to expose the urethra. The perineal skin is then used to form a new opening. A catheter is inserted at the end of the procedure.

**Table 11: Code for perineal urethrostomy**

Code	Code Definition
M38.1	Perineal urethrostomy and drainage of bladder

Note: the insertion of catheter as part of this operation is the “drainage of bladder” part and meets the essential modifiers in the OPCS-4 index.

## Catheterisation

For all the procedures described above, insertion of a urinary catheter is an implicit part of the procedure and would not be coded separately. Some surgeons may choose to insert a suprapubic catheter as part of any of the procedures described in this document; if suprapubic catheter is recorded then this should be coded separately. Suprapubic catheters are more common in paediatric urethroplasty.

## Circumcision

Circumcision may or may not be performed as part of urethroplasty surgery but will always be performed for degloving of the penis (unless the patient has already been circumcised). For data to be consistent, circumcision should be coded whenever it takes place during urethroplasty surgery.

## Urethrotomy

When a stricture can be treated without open surgery, a urethrotomy may be performed. This can be via direct vision as a day case procedure. Optical urethrotomy is an alternative term for endoscopic urethrotomy using a knife. The surgeon views the stricture using a cystoscope and uses cystoscopic instruments to incise the stricture. The device can also be described as an optical urethrotome.

**Table 12: Code for urethrotomy**

Code	Code Definition
M76.3	Optical urethrotomy

The code M79.4 Internal urethrotomy NEC would not normally be used as cystoscopic approach is the preferred method.

## Urethroplasty and reconstruction of urethra codes

Clinically, urethroplasty is a reconstruction of the urethra. For the data to be consistent, procedures where the title is 'urethroplasty' should be coded to M73.6. The term 'reconstruction' may be seen in some urethroplasty operation notes, but this should not alter the assignment of the urethroplasty code.

### Revision Urethroplasty

For a recurrent stricture following a urethroplasty or urethrostomy, dilatation of the urethra may be required. Alternatively, an optical urethrotomy or re-do of the original procedure may be performed. Any of the procedures described above may be re-done if needed. They may be described as re-do or revision: either term should be coded as a revision operation.

### Summary of factors affecting procedure code assignment

- Whether the urethroplasty includes excision of urethra.
- Which part of the urethra the urethroplasty was performed on.
- The type of graft or flap used.
- Harvest site for graft or flap.
- Whether or not circumcision has taken place.
- Whether or not a suprapubic catheter has been inserted.
- Whether or not the operation is staged.

## Appendix

Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change.

The programme undertakes clinically led reviews of specialties, combining wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are currently being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment, and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment.

GIRFT is part of an aligned set of programmes within NHS England. The programme has the backing of the Royal Colleges and professional associations and has a significant and growing presence on the Model Health System (Model Hospital) portal, with its data-rich approach providing the evidence for hospitals to benchmark against expected standards of service and efficiency.

The [NHS Digital Terminology and Classifications Delivery Service](#) produce and publish the [National Clinical Coding Standards](#) in England for the WHO International Statistical Classification of Diseases (ICD-10) and UK OPCS-4 Classification of Interventions and Procedures (OPCS-4) to ensure compliance with these information standards. All Admitted Patient Care episodes, using the information in the patient's medical record, are coded using the current releases of the ICD-10 and OPCS-4 classifications and the National Clinical Coding Standards.

## BAUS

The British Association of Urologists (BAUS) is a membership organisation and registered charity which promotes the highest standard in urology for the benefit of patients. 87% of all practising consultant urologists in the UK are members of BAUS.

The BAUS Audit Steering Group (ASG) provides leadership and strategic oversight across all data and audit activity within BAUS and works in partnership with national programmes for Quality Improvement such as GIRFT, NCIP and urological patient charities. It provides the clinical input into GIRFT coding guidance for urological procedures, to improve the accuracy of urology data underpinning Model Hospital and NCIP and promotes active engagement by clinicians with their Trust coding departments to improve urology coding locally as a collaborative venture.