



Patient Information

Urinary and sexual problems following pelvic trauma

BAUS Section of Andrology & Genito-urethral surgery

The urinary tract in men consists of the kidneys, bladder and urethra (water-pipe), and the prostate gland. The penis and testicles comprise the genitalia. In women the urinary tract comprises the kidneys, bladder and a shorter urethra.

Up to 30% of people who have sustained a pelvic fracture will have an associated injury to the urinary tract or genitalia.

This may give rise to one or more of the following:

- Urethral stricture (narrowing of the water pipe due to scar tissue formation)
- Urinary symptoms or incontinence (involuntary leakage of urine)
- Impotence or ejaculation problems in men
- Reduced arousal, desire and orgasm in both women and men.

This patient information leaflet aims to outline the mechanism, symptoms and treatments available for the above problems, and how patients who have had a pelvic fracture can access treatment for these conditions.

Urethral Strictures

If the urethra has been injured at the time of pelvic trauma, a drainage tube called a catheter will have to be inserted into the bladder when you first came into hospital. This may either have been inserted in your lower abdomen (in the tummy just below the belly button) or through the urethra itself. If this is the case, then there is a high chance that scar tissue will form in the urethra - causing a narrowing or blockage (stricture), making it difficult or impossible to pass urine once the catheter

is removed. This may happen soon after the injury, or sometimes takes a while to develop.

If you have been unable to pass urine naturally after the injury, and it has not been possible to successfully remove your catheter - you will require surgery to remove the scar tissue and reconnect the water pipe in order to enable you to pass urine normally again. This operation is called a URETHROPLASTY, and will be performed by a Urologist specializing in urethral surgery. It is done after the scar tissue has settled, which can be 12 weeks or more after the pelvic injury.

Signs of a developing a stricture later include a reduced urinary flow, urine infections, blood in the urine, changes in how often you pass urine (urinary frequency) or a difficulty in holding the urine (urinary urgency). If you develop these symptoms then you will need to seek referral to a urologist, which can be done via your GP or local trauma team.

Urinary symptoms and Incontinence

If there has been an injury to the bladder or the nerves supplying the bladder, you may develop new urinary symptoms such as frequency (passing urine more often), urgency (unable to hold on for very long) or incontinence (leakage of urine). Bladder symptoms such as these can respond very well to medication, which if successful may have to be taken for a prolonged period of time.

Where there has been trauma to both the urethral sphincter (ring of muscle in the water pipe which keeps men and women dry) and the bladder neck (outlet from the bladder), you may leak urine involuntarily (stress incontinence) when coughing, sneezing, straining etc. There are a range of treatments available for this problem, including medication and surgery.

Erectile dysfunction and ejaculatory problems

Erectile dysfunction (ED) or impotence is the inability to develop or sustain an erection sufficient for sexual intercourse.

Following fractures of the pelvis, nerves and blood vessels supplying the penis may be damaged, leading to difficulties with erections and other sexual problems. You are more likely to develop impotence following a pelvic fracture if there has also been a urethral injury - where the incidence can be up to 42%.

Impotence is treatable in the majority of cases, and treatment can either be commenced either by your GP or at clinics specializing in 'Andrology' or 'Men's Health'.

The first treatment option for impotence is usually tablets such as Sildenafil (Viagra), Tadalafil (Cialis), Vardenafil (Levitra) or Avanafil (Spedra).

It is important to try the tablets at the maximum dose and up to 8 times, before moving onto other treatments. They are also only effective with sexual stimulation. Side-effects occur in a minority and include headache, flushing, back ache and visual effects which are all reversible. They should not be taken with nitrate therapy used for angina.

The second-line option includes either injecting an agent (prostaglandin) into the penis or using a vacuum erection device. These techniques are usually very successful if tablets have failed, and can usually be explained and demonstrated at your local andrology clinic before trying at home.

In the event of failure of the above options, some men require a penile prosthesis (implant) to restore erectile function. These are surgical implants inserted into the penis and used to treat impotence, which has failed all the other treatment options. They are highly effective and have high patient satisfaction rates of over 95%.

Fertility Problems in Men following Pelvic Trauma

Men may also experience pain or reduced volume / loss of ejaculation following pelvic fracture, either due to nerve damage or scar tissue formation. This is more difficult to treat than the ED, but does not necessarily imply that there has been damage to sperm production. If ejaculation fails to return and you want to have children, it should be possible to retrieve sperm from the testes for use in assisted conception.

Very rarely there can be injury to the vas (tube carrying sperm from the testicles). If this results in a blockage to sperm transport which results in fertility problems then it may be possible to undergo reconstruction to by-pass the blockage or sperm can be taken from the testicles directly (sperm retrieval) and used as part of fertility treatment. If the testicles have been damaged or lost as a result of trauma, then silicone prostheses can be used to replace them to help with cosmesis.

Disorders of arousal, desire and orgasm

Approximately 40% of women and men will experience problems with arousal, desire or orgasm following pelvic fracture.

The causes are multiple, and may relate to anatomical changes, pain, nerve related changes, associated urinary problems, or a psychological reaction such as post-

traumatic stress disorder. There may also have been a long period of abstinence from sexual intercourse during the recovery period.

Treatment options will depend on the exact problem, but may involve practical help and advice, chronic pain medication, psychological medication or psycho-sexual counseling therapy.

You may find further information regarding psycho-sexual therapy on the following websites:

British Association of Sexual and Relationship Therapy: www.basrt.org.uk

RELATE: www.relate.org.uk

Accessing treatments for sexual dysfunction

At each Major Trauma centre in the UK, the orthopaedic trauma team have close links with urologists familiar with dealing with the urological / urinary problems associated with pelvic trauma. If you have sustained a bladder or urethral injury, you can be referred to the appropriate urological centre to manage these problems.

Sexual problems are less apparent at the time of the injury and your hospital admission. These often become apparent after discharge home, once you are recovered from the injuries.

Each Major Trauma centre has links to a sexual medicine or andrology service, and if you think you may have sexual problems you can ask your GP or trauma team for a referral to one of these services.