PROCEDURE

Urinary incontinence - injectable implant

An injectable implant adds bulk around the urethra to reduce stress urinary leakage.

PURPOSE
Reduce stress leakage by improving urethral closure

PROCEDURE TYPE
Therapeutic, minimally invasive endoscopic injection

WHERE IT IS DONE
Outpatient clinic or operating theatre

ANAESTHESIA
Local, sometimes moderate sedation or general anaesthesia

HOW LONG IT TAKES
Usually 15 to 30 minutes

PREPARATION
Urine test, medication review, fasting if sedation is planned

RECOVERY
Same day; no driving after sedation or general anaesthesia

MAIN RISKS
Urinary infection, temporary retention, bleeding, persistent leakage

RESULTS
Early improvement; fuller assessment over several weeks

Overview

A urinary incontinence injectable implant is also called a urethral bulking injection . A healthcare professional injects a soft bulking material into the wall of the urethra, the tube that carries urine out of your bladder.

The material supports and thickens the tissues around the urethra. This helps the urethra close more firmly when pressure increases in your abdomen, such as when you cough, laugh, exercise or lift something.

The implant is mainly used to treat stress urinary incontinence . It does not usually treat leakage caused by a sudden, difficult-to-control urge to urinate.

Bulking injection is less invasive than operations such as a sling procedure. It normally involves a shorter recovery, but it is also less likely to provide a complete or permanent cure. Some

people need another injection later.

Several implant materials are available. Their approved uses and specific risks are not identical, so ask which product is being offered to you.

Why the procedure is performed

You may be offered a bulking injection if stress urinary incontinence continues despite pelvic floor exercises or other non-surgical treatment.

It may be considered when you:

Before offering the procedure, your healthcare team should assess when leakage happens and how it affects you. They may also check how well your bladder empties and whether infection or another condition could explain your symptoms.

- Want a minimally invasive treatment with a short recovery
- Prefer not to have a sling or larger operation
- Have health concerns that make major surgery or general anaesthesia less suitable
- Still leak after previous incontinence surgery
- Understand that further injections or another treatment may be needed

Who should and should not have it

Bulking injection is most appropriate for confirmed stress urinary incontinence caused by weak urethral closure. It is commonly performed in women. In selected circumstances, it may be used for leakage after prostate treatment in men, although other procedures may be more suitable.

The procedure may be delayed if you have:

It may not be the right choice if urge incontinence is the main reason for your leakage. Treating the urethra does not correct involuntary bladder contractions.

Certain urethral or bladder abnormalities may also make injection unsuitable. Previous pelvic procedures, radiation treatment and implanted bulking material can affect the choice of product or technique.

Tell your healthcare team about allergies and every previous implant or injection. Product-specific restrictions may apply. If you take medication that affects blood clotting, the team will balance the risk of bleeding against the reason you need that medication.

- A urinary tract infection
- Unexplained blood in your urine that has not been assessed
- Difficulty emptying your bladder
- A current pregnancy
- A bleeding problem that has not been managed safely

How to prepare

Your treating facility's own instructions take priority because preparation differs according to the anaesthetic, implant and your medical history.

You may be asked to provide a urine sample before the procedure. An active urinary infection usually needs treatment before injection.

Give the team an up-to-date list of prescription medicines, over-the-counter products and supplements. This is particularly important for anticoagulants and antiplatelet medicines, sometimes called blood thinners. Do not stop these medicines unless the clinician responsible for your procedure gives you specific instructions.

If you will receive sedation or general anaesthesia, follow the facility's fasting instructions. With local anaesthetic alone, fasting may not be required.

Arrange for someone to take you home if you are receiving sedation or general anaesthesia. Wear comfortable clothing and consider bringing a pad for minor leakage or spotting afterward.

What happens during the procedure

You will usually lie on your back with your legs supported. The area around the urethral opening is cleaned. Local anaesthetic gel or an injection may be used. Some procedures are performed with sedation or general anaesthesia.

A clinician passes a cystoscope into your urethra. This is a narrow viewing instrument with a light and camera. The bulking material is then injected into selected areas around the urethra or bladder outlet.

The resulting cushions help the urethral walls meet more closely. The aim is to reduce leakage without blocking urine flow.

No skin incision is usually required. The instruments are removed when the injections are

complete.

Before leaving, you may be asked to urinate. The team may use an ultrasound scan to check how much urine remains in your bladder. If you cannot empty your bladder, you may temporarily need a catheter, which is a thin tube used to drain urine.

Recovery and what to expect afterward

Mild burning or stinging when you urinate is common for a short time. You may also notice a small amount of blood in your urine, pelvic discomfort or a stronger urge to urinate. Follow the pain-relief instructions given by your facility.

You can usually eat and drink normally once you are fully awake. Drinking enough fluid may make urination more comfortable, unless you have been told to limit fluids for another medical reason.

Most people return to light activity quickly. Your facility may ask you to avoid strenuous exercise, heavy lifting, sexual activity or inserting anything into the vagina for a short period. Follow its specific instructions.

Do not drive yourself home after sedation or general anaesthesia. Avoid driving until the anaesthetic effects have passed and you can brake suddenly and move comfortably. Local rules and your insurer's requirements may also apply.

Many people return to desk-based work within a day or two. You may need longer if your work involves heavy lifting, prolonged activity or limited access to a toilet.

Risks and possible complications

Possible risks include:

Less common problems include injury to the urethra or bladder, longer-lasting urinary retention, persistent pain, movement or exposure of the implant, and tissue reaction around the injected material. Specific risks differ among products.

A bulking injection can sometimes make the urethra too tight, while too little bulking may not control leakage. Further treatment may be needed in either situation.

- Burning, discomfort or blood during urination
- Urinary tract infection
- Temporary difficulty passing urine

- New or increased urgency to urinate
- Continued stress leakage or only partial improvement
- A need for another injection

Results and follow up

You may notice less leakage soon after the procedure. Early swelling can affect the initial result, so your healthcare team may wait several weeks before making a fuller assessment.

Improvement does not always mean complete dryness. The effect can become less noticeable over time, and repeat injections are common. A second injection may add more material if the first treatment did not provide enough support.

Routine follow-up may include questions about leakage, urgency and pad use. The team may also check whether you are emptying your bladder properly.

Keep a record of the implant's name if your facility provides one. Tell clinicians about it before future urinary procedures. Having an injection does not necessarily prevent later surgery, but it may influence planning.

Alternatives

You can choose not to have the injection. Pads, absorbent underwear and lifestyle adjustments can manage leakage without procedural risks, but they do not strengthen urethral closure.

Supervised pelvic floor muscle training strengthens the muscles supporting the bladder and urethra. It avoids surgery, but it takes regular practice and may not control more severe leakage.

Continence pessaries and urethral support devices may reduce leakage during exercise or daily activity. They avoid an operation but require fitting, cleaning and ongoing use.

A mid-urethral sling supports the urethra with a narrow strip of material. It generally offers a greater chance of lasting control than bulking injection, but it is more invasive and has surgical and mesh-related risks.

An autologous fascial sling uses tissue taken from your own body. It avoids synthetic mesh but requires larger incisions, more anaesthesia and a longer recovery.

Colposuspension lifts and supports tissues near the bladder outlet. It may provide durable

improvement but requires abdominal or keyhole surgery and has a longer recovery.

For some men with leakage after prostate treatment, a male sling or artificial urinary sphincter may offer stronger control. These involve surgery and have device-specific risks.

The best trade-off depends on the type and severity of leakage, previous treatment, anaesthetic risk and how you feel about recovery time, implanted materials and possible repeat procedures.

When to call your healthcare team

Contact your healthcare team promptly if burning, urgency, blood in the urine or pain is worsening rather than settling. Also call if leakage becomes difficult to manage, you develop cloudy or foul-smelling urine, or you have questions about returning to normal activity. These concerns usually need timely advice but are not automatically emergencies.

Seek urgent medical help if you:

Call emergency services for trouble breathing, facial or throat swelling, collapse, or another sign of a severe allergic reaction.

- Cannot pass urine or develop increasing lower abdominal pain
- Have heavy bleeding or blood clots in your urine
- Develop fever with chills, worsening urinary pain or marked weakness
- Have severe or rapidly increasing pelvic pain

Common questions

Will I be asleep?

Often, no. Many injections are performed using local anaesthetic. Sedation or general anaesthesia may be used depending on the setting, the implant and your needs.

Can I drive home?

Not after sedation or general anaesthesia. Arrange for someone to take you home. Even after local anaesthetic, follow your facility's advice and drive only when you can move and brake safely.

How painful is it?

You may feel pressure during the procedure and mild burning afterward. Significant or increasing pain is not expected and should be reported.

When will I know if it worked?

You may notice improvement immediately, but swelling can affect the early result. The benefit is usually assessed more fully over the following weeks.

Will I need another injection?

Possibly. Bulking materials may not stop all leakage, and their effect can decrease. Some people have a planned or later repeat injection.

Does the implant need to be removed?

Usually not. The material is intended to remain in place. Removal may be difficult and is generally considered only if a specific complication develops.

Sources

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