

Removal of Vaginal mesh for prolapse

Information for patients



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This information is for women who are thinking about having surgery to remove vaginal prolapse mesh. It is meant to help you make a decision about whether or not surgery is right for you and is to be used alongside the NICE PDA for mesh removal. It can be used as a basis for discussion with your GP, hospital care team and family or friends.

What is mesh?

Mesh is netting woven from man-made materials. Surgeons use mesh to add support to parts of the body that have become weak. In women, mesh has been used since the late 1990s to treat

- Stress urinary incontinence.
- Problems with weak pelvic supporting tissues, called pelvic organ prolapse.

Mesh is meant to stay in place once fitted. This means it can be difficult or even impossible to take it all out.

COMMON TERMS EXPLAINED

Conservative management

Treatment or management that does not involve surgery.

Mesh erosion

This is a general term for any synthetic mesh or mesh sling that is found perforating an organ after surgery, such as the urinary tract or bowel. This term is also used to refer to mesh exposure or mesh extrusion. See Mesh exposure, Mesh extrusion, Perforation.

Mesh exposure

Mesh or mesh sling that is visible in the vagina or rectum. This can be asymptomatic (when the woman is not aware/bothered by the potential problem) or there may be symptoms such as pain or bleeding. See Mesh erosion, Mesh extrusion, Perforation.

Mesh extrusion

Passage of the mesh sling gradually out of a body structure or tissue. See Mesh erosion, Mesh exposure, Perforation.

Mesh inlay

A mesh inlay is a rectangular strip of mesh cut to a desired size by the surgeon and placed between the vaginal skin and the bladder / urethra (front wall of vagina) or between the vaginal skin and the rectum / bowel (back wall of the vagina).

Mesh Kit

A mesh kit is a complex operation where the mesh implant has a series of arms which anchor the mesh to strong ligaments in the pelvis. Sometimes these support arms have small hooks to secure them in place. Mesh kits can be used to support the front wall, back wall or top of the vagina (vaginal vault) or the whole vagina.

Perforation

Mesh or mesh sling that is in an organ. This can happen when the mesh is put into the body but can also happen sometime afterwards.

Fistula

An abnormal connection that forms between 2 hollow spaces in the body, such as bladder, intestines, or blood vessels. They can form after surgery, injury, infection or inflammation.

Multidisciplinary team (MDT)

A team of healthcare professionals that is formed to help diagnose and/or treat complex conditions. MDTs are generally used when it is suitable for care to be provided on an individual case basis and when the complex nature of the condition requires input from many professionals in different areas of medicine.

What are the different types of surgery for removal of vaginally inserted mesh for prolapse?

If you are reading this leaflet because you are thinking about having vaginal prolapse mesh removed, you will probably be having problems. There are treatments for some of these complications that do not use surgery. For more information on other types of treatment

[NICE PDA: <https://www.nice.org.uk/guidance/ng123/resources>]

No two cases are the same. Both the problems and possible answers to those problems will be different for each woman. The information in this leaflet is only a guide to helping you decide whether or not surgery is the right choice for you.

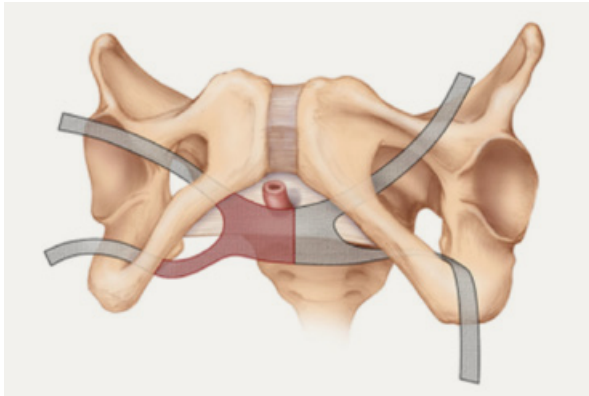
Surgery to remove vaginal prolapse mesh can sometimes be very complicated, especially when there are support arms extending into deeper tissues in the pelvis, because this may involve surgery extending into the groin or buttock. In some cases, surgery should be done by surgeons with special expertise. If this expertise is not available in your local mesh centre, they may recommend that you have your surgery in another mesh centre.

The different types of mesh removal are explained below.

PARTIAL REMOVAL OF A VAGINAL PROLAPSE 'MESH INLAY' OR 'MESH KIT'

This is usually done if the mesh has come through the vaginal skin (vaginal mesh exposure or extrusion). A few fibres or a few centimetres of mesh can be removed. If a small piece of mesh is removed, this can usually be done as a day case under local, regional (spinal) or general anaesthesia.

After partial vaginal prolapse mesh removal there is a risk that it may be more difficult to find and remove the remaining mesh or support arms if needed.



COMPLETE REMOVAL OF A VAGINAL PROLAPSE 'MESH INLAY' OR 'MESH KIT'

Complete removal of a 'mesh inlay' can usually be performed through an incision in the vagina. The mesh is found, and carefully removed from the surrounding structures. This operation usually requires an overnight stay in hospital. It is done under general or regional (spinal) anaesthesia. A swab called a vaginal pack may be placed inside the vagina at the end of the operation to help stop bleeding. A catheter may be left in the bladder overnight. The pack and catheter are usually removed the following day.

Some women chose to have complete removal of a 'mesh kit' which includes the vaginal mesh as well as the mesh arms that extend outside the vagina. This is a major procedure and may require incisions in the groin and buttock area as well as the vaginal incisions. The extra incisions are to assist with removal of the arms of the mesh implant which are attached to strong ligaments deep in the pelvis, and lie in the muscles at the top of the thigh and next to the rectum. In some cases, **it may not be possible to remove all of the mesh and the small hooks that attach the arms of the vaginal prolapse mesh to the deeper tissues and ligaments in the pelvis.**

REMOVAL OF VAGINAL PROLAPSE MESH FROM THE URETHRA

Mesh that has gone into the urethra (extrusion or perforation) is a serious complication. The mesh is usually removed by an operation through the vagina. This involves incision in the vagina and urethra to remove the mesh and then repairing the holes (defects) in the urethra and the vagina. The urethra is a very delicate organ, and the repair may need to be reinforced with a Martius graft to help it to heal. A Martius graft is fat from the labia majora which is tunnelled under the skin into the vagina to cover the urethral repair to help it to heal.

You may need to stay in hospital for two to four days. The operation can be done under general or regional (spinal) anaesthesia.

If mesh is removed from the urethra, you will need a catheter in the bladder for between one and three weeks. This is to allow the urethral tissues to heal fully. If the tissues do not heal properly, there is a risk that a hole (fistula) will develop between the urethra and the vagina. This can cause severe and constant leakage of urine. This would usually need more surgery to repair it.

Sometimes mesh in the urethra can be managed without opening the urethra, either by using a laser in the urethra or by cutting the mesh from the inside of the urethra. These are smaller procedures than removing the mesh through the vagina and can be done as a day case. However, this means mesh can sometimes be left behind in the wall of the urethra and more surgery may be needed.

REMOVAL OF VAGINAL PROLAPSE MESH FROM THE BLADDER

Mesh that has gone into the bladder (extrusion or perforation) is a serious complication. The mesh can be removed from the bladder using either keyhole or open surgery. During this operation the bladder is opened to remove the mesh and the bladder is then repaired with stitches. The fat from inside your abdomen can be used to cover over the bladder repair. It may be possible to remove some or all of the mesh from the vagina at the same time as removal of mesh from the bladder.

A catheter is left in for approximately 3 weeks after this surgery to allow the bladder to heal fully. If the bladder does not heal properly, there is a risk that a hole (fistula) will develop between the bladder and the vagina. A fistula would cause severe and constant leakage of urine. If this happened, you would usually need further surgery. The recovery time for wound to heal and stitches to dissolve after mesh removal from the bladder is usually around four to six weeks.

Sometimes it is possible to manage the mesh in the bladder using a laser during a telescopic examination of your bladder (cystoscopy). This can usually be done as a day case. This approach is not always possible and there is a risk that mesh will be left behind in the wall of the bladder and more surgery to remove it may be needed.

REMOVAL OF VAGINAL PROLAPSE MESH FROM THE BOWEL

Removal of mesh from the bowel is a major operation requiring several days of hospital stay and 6-8 weeks of recovery. The mesh can be removed from the bowel using either laparoscopic (key-hole) or with open abdominal surgery.

Sometimes part of the bowel involved with the mesh might need to be removed. Your surgeon will discuss this with you if this is likely and will explain the type of operation you are likely to need.

An **anterior resection** is an operation to remove the rectum or part of it. After removing the section of the damaged rectum, the surgeon will join the two healthy ends together using either a series of sutures or staples. This is called an anastomosis. Patients often need to have a stoma. The stoma 'rests' the anastomosis allowing it to heal. The stoma is usually temporary (and reversed at a second operation) but in some cases may have to be permanent.

A **Hartmann's Procedure** is an operation performed on the bowel and involves removal of a section of the large bowel (colon and rectum). The end of the bowel is then brought to the surface of the abdomen as a stoma. This operation is mostly performed in the emergency setting or when a bowel join is not possible or when the sphincter control muscles are weak and joining the bowel together would place the patient at high risk of developing faecal incontinence (loss of bowel control). A Hartmann's stoma may be permanent. Reversal or re-joining the bowel is sometimes considered if the operation has been performed as an emergency. The mesh can be removed at the same time or might require a second procedure.

Complications of surgical removal of a vaginal prolapse mesh

There are some things that you can do before you have your operation to help with your recovery. Keeping as fit and active as possible before surgery and losing some weight (if you are overweight) can be beneficial and may lower the risk of complications. If you have any other conditions, such as diabetes or constipation, you should seek advice from your GP on improving these as much as possible before your operation. If you feel your mental well-being is affected, please discuss this with your treating team.

Surgical removal of a mesh sling can make some problems worse. Because of this, mesh removal surgery may not be the right treatment choice for you. The risks of mesh removal surgery are different for each woman and depend on factors such as:

- How close the mesh is to your urethra, bladder or bowel.
- The amount of mesh to be removed.
- Previous mesh removal surgery.
- The amount of scarring.
- If you have more than one mesh implant in place.
- The presence or suspicion of infection around the mesh.

Mesh removal may not help all of the symptoms related to a vaginal prolapse mesh and new symptoms may develop. It is possible that the after effects of mesh removal surgery will cause worse problems than the original mesh complication. It is important to talk with your surgical team about how this might affect you. Even if symptoms do not improve or if they get worse, some women feel very relieved that the mesh implant has been removed from their body.

POSSIBLE COMPLICATIONS OF SURGERY

- All surgery carries risks such as infection, bleeding and risks from anaesthesia. Excessive bleeding requiring blood transfusion with mesh removal surgery is uncommon (between 1/100 and 1/1000 women).
- Injury to the urethra or bladder can occur if the mesh has extruded or is involved in the wall of the organ. If this happens, the injury will need to be repaired immediately and a catheter inserted for several weeks to allow the injury to heal. If the injury does not heal properly, a fistula can develop. A fistula is a connection (hole) between the urethra or bladder and the vagina and can cause severe and persistent leakage of urine.
- If a vaginal prolapse mesh has been placed in the back wall of the vagina there is a risk of injury to the bowel when the mesh is removed. This injury will need to be repaired immediately. If there is a bowel injury, it is sometimes necessary to divert the bowel contents away from the repair to allow the injury to heal. This requires the creation of a temporary colostomy (stoma). It is usually possible to reverse the colostomy after several months, but in some cases the stoma is permanent.

COMPLICATIONS AFTER YOUR SURGERY (SHORT-TERM)

- Post-operative pain may be worse than the pain before surgery, especially if you have long-term pain affecting other parts of your body.
- There is a risk of bruising.
- The wounds can become infected.
- Urinary tract infection is common after vaginal surgery and can be treated with antibiotics.
- If you have cuts on your abdomen to remove the mesh, you can develop a bulge in the wound (hernia) which may need to be repaired with more surgery.
- All surgery carries a risk of developing a blood clot in your leg or lung (deep vein thrombosis – DVT and pulmonary embolism - PE). The risk of this complication is higher in women having total mesh removal as the operating time is longer and you may be less mobile for a few weeks after surgery.

COMPLICATIONS AFTER YOUR SURGERY (LONG TERM)

There is a possibility that your original vaginal prolapse symptoms will come back after removal of the mesh; this is dependent on how much mesh is removed.

Some patients may choose to manage the prolapse with pelvic floor exercises or vaginal pessaries. A pessary is a silicone ring which is inserted into the vagina to reduce the prolapse, instead of further surgery.

It may be possible to have a non-mesh prolapse repair procedure at the same time of mesh removal surgery, to reduce the risk of prolapse recurring. It may be preferable to assess for recurrent prolapse in after recovery from mesh removal surgery and have a repair at a later stage. Your surgeon will discuss this possibility with you.

- There is a chance that urinary leakage (incontinence) symptoms may occur after removal of the vaginal prolapse mesh. It is difficult to know how likely this is, but the risk is higher the more mesh that is removed.
- Bowel control may be altered by removal of a mesh from the back wall of the vagina. Symptoms of bowel frequency and urgency and rarely faecal leakage (incontinence) can occur, and in some cases difficulty with constipation or bowel emptying may need to be addressed. Pelvic floor physiotherapy, medical or surgical treatment may be required in some patients.
- **Pain may improve following mesh removal surgery but can return.** There is no guarantee that mesh removal surgery will improve symptoms of pain in the long term, and in rare cases the pain may worsen following mesh removal. Pain can be centred on the vagina or be more widespread in the pelvis. Pain can also be related to sexual intercourse (dyspareunia).
- If you have not had all of the mesh removed, you may have more symptoms because of the mesh. If this happens, you may need more surgery. **Your surgeon should explain how much mesh has been taken out during your operation and, if there is any left, where it is.**
- You may decide before surgery that if a piece of mesh is very close to an organ, that you would prefer to leave that piece of mesh in place rather than have it removed and risk having an injury to the organ (e.g., the bladder or bowel). It is important to discuss this with your consultant before surgery.

How will I feel after my surgery?

Your recovery will depend on the type of surgery you have had. It can be several months before you feel back to normal especially after surgery with a general anaesthetic and where you had to stay in hospital for several days.

INITIAL RECOVERY

- Your incisions may be uncomfortable for up to eight weeks; simple painkillers such as paracetamol and ibuprofen can help with this.
- You may be discharged with a temporary catheter in your bladder. This is a tube which drains urine from your bladder into a bag. Before you go home, the nursing staff will teach you how to look after the catheter and empty the catheter bag and will advise how long the catheter is expected to stay in place.
- For the first few weeks, you should avoid any strenuous activity or heavy lifting. For example, no more than you can easily lift with one hand.
- After four weeks, you can go back to everyday activities if you feel well enough.
- For more strenuous activity such as running, gym exercises or at a very physical job, you e.g., will be given advice when to return to work but should usually wait six weeks before gradually introduce exercise.
- Avoid vaginal intercourse for at least six weeks after the procedure (see below).
- You may be referred to the physiotherapists for pelvic floor exercises after your surgery to strengthen the pelvic floor and help with any recurrent prolapse or bladder problems.
- You may be offered referral to a clinical psychologist.

PAIN

It is normal to have some pain after surgery. The aim of pain medications is to make you feel comfortable enough to get up, wash, get dressed, and do simple tasks in your home.

The following recommendations are general guidelines for taking pain medications:

- Unless your doctor gives you a different plan, paracetamol and ibuprofen are the most useful medicines to manage your pain.
- You may also get a prescription for an opioid such as codeine, hydrocodone or oxycodone. This should be added as needed to reduce pain that is not adequately relieved by ibuprofen and paracetamol. If you are given an opioid, you should also be prescribed a laxative as most people become constipated on these tablets.
- Painkillers are usually most effective in the first few weeks after surgery if you take them regularly rather than only when your pain is severe.
- If you have already been taking strong painkillers before your surgery, you may be seen by a pain specialist before surgery who can help with planning your pain relief after your operation.

BLEEDING

There is a risk of bleeding during the operation for removal of a vaginal prolapse mesh. You might see bruising afterwards.

If you have had a cut in the vagina to remove the prolapse mesh, some spotting of pink or red blood from the vagina is normal and can last for six to eight weeks. Brown-coloured discharge that gradually changes to a light yellow or cream colour is also normal and can last for up to eight weeks. The brownish discharge is old blood and often has a strong smell. This is normal.

BLADDER FUNCTION

- You may be sent home with a catheter in your bladder. Before you go home, you will be told how to manage this and when the catheter is to be removed.
- It is normal for your bladder to behave differently after mesh removal surgery. You may notice that you have to wait before you start to pass urine or that your urine stream is slower. This will gradually get better, but it may take up several months before you are back to normal. Try to relax when sitting on the toilet and allow a little longer.
- Some women have urinary leakage after surgery. Often this gets better in the first few weeks but if it does not, tell your hospital treatment team when you see them after surgery.
- Drinking more water than usual will not help your bladder recover faster.

BOWEL FUNCTION

- If you require a stoma, you will be shown how to manage this and will be seen by a stoma nurse.
- Constipation is common after mesh removal surgery and can be made worse by pain medication. It is important to prevent constipation and keep your stools soft because straining can damage the stitches.
- You may be given a course of laxatives to take home with you. If not or you have difficulty opening your bowels, see your GP.
- Go for short walks if you can. Walking and being active will help you have a bowel movement.

If you feel worried about any of the above or something doesn't feel right, get in touch with your hospital care team or GP.

MENTAL HEALTH

You may feel anxious about your surgery or further treatment and may wish to talk to an independent person about your concerns. Everyone reacts differently. Sometimes people need additional help to talk through fears, worries, and stress caused by their experience. We would like to reassure you that additional help and support will be offered to you. Your team will be able to advise you what help is available for you.

How successful is vaginal prolapse mesh removal surgery?

- Most women who have removal of a small piece of mesh exposed in vagina will have improvement in their symptoms.
- Following both partial and complete mesh removal surgery, women may experience improvement in their symptoms. However, it is not clear why some symptoms including pain persist or come back in some women after mesh removal surgery. It may be because the nerves have become sensitised. Once the mesh is removed, pain that is not improved or that comes back will be managed with the pain team.
- There is a significant risk of prolapse symptoms recurring after the mesh is removed requiring further surgery (see the section on Complications of surgical removal of vaginal prolapse mesh above).
- Bowel control may be altered by removal of a mesh from the back wall of the vagina (see the section on Complications of surgical removal of vaginal prolapse mesh above).
- There is currently very little information about whether other symptoms or conditions such as UTIs, pain elsewhere in the body, foreign body reactions and autoimmune disorders would be helped by removing all or some of the mesh.

WHO SHOULD I CONTACT IF I HAVE PROBLEMS AFTER MESH REMOVAL SURGERY?

Before you leave hospital, your clinical team will let you know how to get back in touch with the mesh centre if you have any problems in the initial weeks after surgery.

If there is an emergency, or you have a problem out of normal office hours, you may need to see your GP or attend your local walk-in centre or Accident and Emergency department.

You should contact your GP or walk in centre if:

- you think you have a urine or wound infection and do not feel very unwell or have a temperature
- you are worried about light vaginal bleeding or discharge
- You have problems with constipation
- You need additional painkillers or other prescribed medication

You should seek immediate attention at your nearest accident and emergency department if:

- You have been sent home with a catheter and it is blocked (it has stopped draining urine) or falls out
- You are unable to pass urine or it becomes very difficult to pass urine (urinary retention)
- You have vaginal bleeding heavier than a period which is persisting
- You think you have a urine or wound infection and a high temperature (over 38 degrees) and feel unwell

What activities can I do after my surgery?

Listen to your body and gradually increase what you do. If you start to feel tired, sore or in pain, lie down to rest.

- Exercise is important for a healthy recovery. Start some physical activity, such as walking, as soon as possible after surgery. Start with short walks and gradually increase the distance and length of time that you walk.
- You can be referred for pelvic floor physiotherapy locally by your surgeon or GP after about three months.
- **Driving:** Do not drive while you are taking prescription pain medications. After you stop them, you may drive when you are sure you can move as quickly as you need to in an emergency without hurting yourself. Before you drive, sit behind the wheel and practice emergency stops and turning to look over your shoulder. If this hurts, wait and check again in a few more days. It is your responsibility to make sure you are fit to drive after any surgical procedure as this may affect your insurance.
- **Lifting:** Unless you are given other instructions, for six weeks after your surgery do not lift anything that you cannot easily lift with one hand.
- **Sex:** After your surgery, your hospital care team will talk to you about how long you may need to wait until you can start having vaginal intercourse. When you feel ready, intercourse may feel different than before the surgery. The first few times may be uncomfortable. Talk to your partner about how you feel. Your hospital care team can also provide support if these issues do not improve. Some women may benefit from psychosexual counselling to help with any difficulties, fears or concerns they have with intimacy following mesh removal surgery.
- **Work:** The amount of time you will be off work after surgery depends on both your surgery and your job. This should have been discussed with your doctor before surgery. If you need a sick note, ask your doctor for one before you leave hospital.

WHAT I WOULD LIKE TO ACHIEVE/ WANT FROM MESH REMOVAL SURGERY – MY GOALS

After you have considered carefully which treatments might be best for you, use this section to write down your thoughts about each treatment option. You may find it helpful to complete these sections with your doctor.

1. Which specific symptoms that cause you the most distress, are you hoping will improve after mesh removal?

2. Do you know the benefits and risks of each option?

3. Are you clear about which benefits, and risks matter most to you?

4. Do you have enough support and advice to make a choice?

5. Do you feel sure about the best choice for you?

6. What complications concern you the most about your choice?

7. Do you understand that during surgery, it may not be possible for the surgeon to remove all of the mesh?

CONSULTANT COMMENTS

This section can be used for the doctor to write down comments about mesh removal surgery that are specific to you personally. This can be done after you have discussed the options with your doctor.

1. Which symptoms are likely to be addressed by having mesh removed?

2. Which type of mesh removal do you feel is most appropriate and why?

3. Have the different mesh removal choices and the pros and cons of each been explained, including that it is not always possible to remove all the mesh?

4. Have other goals of surgery been explored?

5. Are there any specific recommendations to help recovery after surgery?