Removal of Abdominal mesh for Pelvic organ prolapse and rectal prolapse

Information for patients

What is mesh?
p2

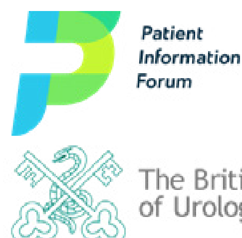
What are the different types of surgery for removal of abdominally inserted mesh for prolapse?
p5

What are the possible complications?
p7

How will I feel after my surgery?
p9

How successful is abdominal prolapse mesh removal surgery?
p11

What activities can I do after my surgery?
p12



This information is for women who are thinking about having surgery to remove abdominal mesh used to treat pelvic organ prolapse and/or rectal prolapse. 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.

Abdominal mesh for vaginal and rectal prolapse
A sheet of woven synthetic material, usually made of polypropylene, which is sutured to the front and back of the vagina, around the cervix (if present) or the front of the rectum, and attached to the anterior longitudinal ligament over the sacrum (sacral promontory) to correct (lift) the vaginal prolapse. Abdominal mesh for Prolapse is done using either laparoscopic (key hole) or open surgery. Abdominal mesh procedure for vaginal prolapse and rectal prolapse using mesh can be performed as separate or combined procedure.

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.

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.

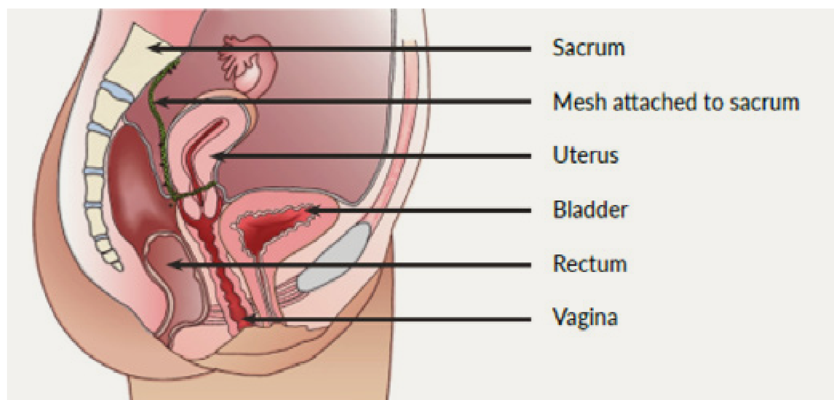
Fistula
An abnormal connection that forms between 2 hollow spaces in the body, such as bladder, bowel, or blood vessels. They can form after surgery, injury, infection or inflammation.

Stoma
A stoma is a term used to describe an external opening of the bowel onto the abdominal (tummy) wall. Faeces (stool) will then leave the body through the stoma into collecting pouch (stoma bag).

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.

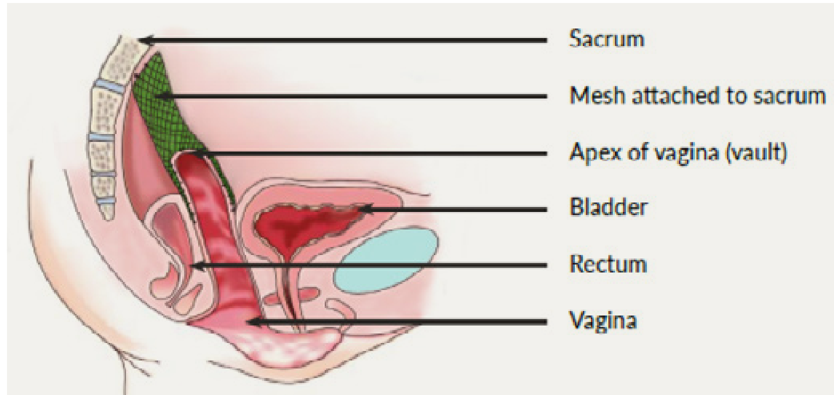
Sacral promontory
It is the front of the first sacral vertebrae (base of spine). Mesh used for POP and /or rectal prolapse surgery is attached to a ligament (anterior longitudinal ligament) which lies on this bone.

Sacrohysteropexy
This is an abdominal surgical procedure where synthetic mesh is used to treat symptoms of vaginal prolapse when the uterus(womb) and cervix is present. Mesh is attached around or to the back of the womb and the other end is attached to the sacral promontory (see above) using either non absorbable sutures or tacking staples.



Sacrocolpopexy

This is an abdominal surgical procedure where synthetic mesh is used to treat symptoms of vaginal prolapse when the uterus has been removed (hysterectomy). Mesh is attached to the top of the vagina (vaginal vault/ cervical stump) using sutures and may also be stitched to the front and /or back wall of the vagina depending on the type of prolapse. The mesh is then fixed to the sacral promontory (see above) using either non absorbable sutures or tacking staples.



Ventral Mesh Rectopexy

A rectopexy is an abdominal surgical procedure where mesh is used to treat symptoms of rectal prolapse. During the operation, the lowest part of the bowel (rectum) is released from the back wall of the vagina and mesh is attached to the front of the rectum using sutures. The mesh is then fixed to the sacral promontory (see above) using either non absorbable sutures or tacking staples. This has the effect of pulling up the bowel and preventing it from prolapsing downwards.

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

If you are reading this leaflet because you are thinking about having an abdominal mesh used for prolapse 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 abdominal mesh can sometimes be very complicated and should be performed by surgical teams 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 options of mesh removal are explained below.

REMOVAL OF PART OF THE ABDOMINAL MESH

If the abdominal mesh has come through the vaginal skin (vaginal mesh exposure or extrusion) then the exposed part of the mesh can be removed by an operation through the vagina. This usually involves removing a few fibres or a few centimetres of the mesh and closing the vaginal skin. It can be done as a day case under local, regional (spinal) or general anaesthesia. This procedure will only be considered if there is no evidence of infection around the mesh in the abdomen.

After partial abdominal mesh removal there is a small risk that it may be more difficult to remove the remaining mesh

REMOVAL OF ALL OF AN ABDOMINAL MESH

Removal of abdominal mesh is a major operation requiring several days of hospital stay and 6-8 weeks of recovery. This can be performed as laparoscopic (key-hole) or open abdominal surgery.

Sacrocolpopexy and sacrohysteropexy mesh:
The mesh will be identified and then carefully removed where it is attached on to the uterus and/or vagina and sacral promontory. Sacrohysteropexy mesh may also require a hysterectomy to allow full removal of the mesh. Tacking staples or sutures used to attach the mesh to the sacral promontory can be removed if possible.

Ventral mesh rectopexy:
The mesh will be identified and removed from the bowel /rectum. Tacking staples or sutures used to attach the mesh to the sacral promontory can be removed if possible.

The mesh is often adherent to the lower bowel (the sigmoid colon and the rectum). In removing the mesh, the bowel may be damaged (perforation). In these circumstances the bowel will need to be

repaired or the damaged segment of bowel removed and the ends re-joined if it is safe to do so. You may require a temporary stoma to allow time for the bowel to heal.

During complete abdominal mesh removal, **it may not be possible to remove all of the mesh or the tacking staples/sutures that attach the mesh onto the sacral promontory.**

REMOVAL OF MESH FROM THE BLADDER

Mesh that has gone into the bladder (extrusion or perforation) is a serious complication. Removal of mesh from the bladder is a major operation requiring several days of hospital stay and several weeks of recovery. The mesh can be removed from the bladder using either laparoscopic (key-hole) or open abdominal surgery. During this operation the bladder is opened to remove the mesh and the bladder is then repaired with sutures. The fat from inside your abdomen can be used to cover over the bladder repair. Removal of the rest of the mesh can be performed at the same time as removal of mesh from the bladder.

A catheter is left in for one to four weeks after this surgery to allow the bladder to heal fully. If the bladder does not heal properly, urine can leak into the abdominal cavity or into the vagina requiring further surgery.

Sometimes it is possible to manage 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 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 abdominal 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 an abdominal mesh 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 bowel, ureter or bladder.
- The amount of mesh to be removed.
- Previous mesh removal surgery.
- The amount of scarring.
- Number of previous abdominal surgeries.
- Presence or suspicion of infection around the mesh.

Mesh removal may not help all of the symptoms related to an abdominal 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 total abdominal mesh removal surgery is uncommon (between 1/100 and 1/1000 women).

- Injury to the abdominal organs like ureter, bladder or bowel can occur. If this happens, the injury will need to be repaired immediately. If the ureter (the tube draining from the kidney to the bladder) is damaged, you might need a stent (a thin tube placed inside the ureter, which allows the urine to drain from the kidney to bladder) for several weeks to allow the ureter to heal. With ureter and/bladder injury you may need a catheter for several weeks to keep the bladder empty whilst it heals. 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.

  If the injury does not heal properly there can be persistent leakage in the abdominal cavity requiring further abdominal surgery. It can rarely lead to development of a leak (fistula). A fistula is a connection (hole) between the bladder, ureter, vagina or bowel and can cause severe and persistent leakage of urine or faeces. This is an uncommon complication which usually needs further surgery.

There is a risk of injury to major blood vessels with removal of abdominal mesh which can be life threatening and require immediate repair with the help of vascular surgeons.

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 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 when having abdominal 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 prolapse will come back after removal of the mesh. It is difficult to know how likely this is, but the risk is higher with total mesh removal 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.

  Surgical options for recurrence of prolapse after abdominal sacrocolpopexy /hysteropexy mesh removal are limited to non-mesh repairs of prolapse. 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 preferrable to assess for recurrent prolapse after recovery from mesh removal surgery and have a repair at a later stage. Your surgeon will discuss this possibility with you.

Surgical options for recurrence of rectal prolapse are limited, particularly if the bowel has been removed as part of the operation to remove the mesh. If a recurrent rectal prolapse occurs, non-mesh procedures are likely to be considered Your surgeon will discuss this with you.

- Bowel control may be altered by removal of the mesh. 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 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 localised in the pelvis or vagina or may be more widespread. 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., 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 abdominal incisions may be uncomfortable for several 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 will be given advice but should wait at least six weeks before gradually introducing exercise.
- Avoid vaginal intercourse for at least six weeks after the procedure (see below).
- You may be referred to the physiotherapist 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 complete removal of an abdominal mesh.
You might see a lot of bruising afterwards on your abdomen.

If you have had a cut in the six weeks prolapse mesh has been removed from the vagina or if you have had a hysterectomy, 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.
- If you needed ureteric stents, you will be given follow up appointment in 6-8 weeks to remove the stents.

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 abdominal mesh removal surgery and can be made worse by pain medication. It is important to prevent constipation and keep your stools soft.
- 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 abdominal 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 abdominal 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. 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 abdominal prolapse mesh above).
- Bowel control may be altered by removal of a mesh (see the section on Complications of surgical removal of abdominal prolapse mesh above).
- There is currently very little information about whether other symptoms or conditions like pain, 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 or bleeding from the back passage
- You think you have a urine or wound infection and a high temperature (over 38 degrees) and feel unwell
- You have a stoma and it does not appear to be working normally
- You have vomiting or pain and have had removal of part of your bowels.

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?