Treatment of Abdominal Aortic Aneurysms (AAA)
An information guide
Treatment of Abdominal Aortic Aneurysms (AAA)

This leaflet tells you about treatment of abdominal aortic aneurysms (AAAs). Repair of an AAA is a surgical procedure that is usually carried out when the risk of an AAA rupturing (bursting) is higher than the risk of an operation. Your aneurysm may have reached a size at which surgery is considered the best option for you. This leaflet provides information about your options for treatment. It is not meant to be a substitute for discussion with your vascular specialist team.

What is the aorta?

The aorta is the largest artery (blood vessel) in the body. It carries blood from the heart and descends through the chest and the abdomen. Many arteries come off the aorta to supply blood to all parts of the body. At about the level of the pelvis the aorta divides into two iliac arteries, one going to each leg.
What are aneurysms and abdominal aortic aneurysms?
An aneurysm occurs when the wall of a blood vessel is weakened and balloons out. In the aorta this ballooning makes the wall weaker and more likely to burst. Aneurysms can occur in any artery, but they most commonly occur in the section of the aorta that passes through the abdomen. These are known as abdominal aortic aneurysms (AAAs).
What causes an AAA?

The exact reason why an aneurysm forms in the aorta is not clear in most cases. Aneurysms can affect people of any age and both sexes. However, they are most common in men, people with high blood pressure (hypertension) and those over the age of 65.

The wall of the aorta normally has layers of supporting tissues. As people age, they may lose some of this tissue. This is thought to explain why aneurysms are more common in older people.

Your genetic make-up plays a part as you have a much higher chance of developing an AAA if one of your immediate relatives, (parent, brother or sister), has or had one.

Certain other ‘risk factors’ increase the chance of getting an aneurysm. These include: smoking, high blood pressure, high cholesterol, emphysema and obesity.

How are aneurysms discovered?

The majority of AAAs cause no symptoms and are discovered by chance. A routine examination by a doctor, or an x-ray or scan performed for some other reason, may pick up the presence of an aneurysm. Alternatively, some patients notice an abnormal pulsation in their abdomen. As the aneurysm stretches it can also cause pain in your back or abdomen.

In some parts of the country, screening for AAAs has been introduced. This is performed using an ultrasound scan. The scan will tell you if there is an aneurysm present and exactly how large it is. A more detailed CT scan is sometimes done. This may be done if your doctor needs to know whether the aneurysm is affecting any of the arteries that come off the aorta. CT scans are also done by surgeons to help plan an operation. If an aneurysm is suspected on clinical examination, or found on ultrasound, your GP will refer you to a vascular surgeon for advice.
What are the symptoms of an AAA?

Aneurysms generally take years to develop and it is rare for them to give symptoms during this time.

If you do develop symptoms you may experience one or more of the following:

• a pulsing feeling in your abdomen, similar to a heartbeat
• pain in your abdomen or lower back

What is the concern about an AAA?

The main concern is that the aneurysm might rupture (burst).

The wall of the aneurysm is weaker than a normal artery wall and may not be able to withstand the pressure of blood inside. If it ruptures then internal bleeding occurs which is often fatal. Of course, most AAAs do not rupture - only a certain proportion.

What is the chance of an AAA rupturing?

The chance of rupture is very low for small AAAs. For aneurysms measuring less than 5.5cm (about 2 inches) in diameter evidence suggests the risk of rupture is less than 1 in 100 per year. As aneurysms get larger than 5.5cm, the risk of rupture increases and it is usually at this size that the option of surgery is considered. For any given size, rupture risk is increased in smokers, those with high blood pressure, and those with a family history of an AAA.

Each individual’s risk from their AAA bursting and/or from surgery may be different so any decision on treatment will be carefully considered by your vascular team and always discussed in detail with you and, when appropriate, your family.

If you experience the sudden onset of new severe abdominal pain or back pain that is distinct from any back pain you may have had previously, you may be developing a leak from your AAA or be at immediate risk of rupture.
If you experience any of these things please dial 999 for an ambulance and tell the ambulance control that you have an aortic aneurysm and need to go urgently to hospital.

Do not drive yourself to hospital.

Should everyone with an AAA have surgery?

The short answer is no. Surgical repair of an AAA is a major operation and carries risks. Research has shown that for people with aneurysms, measuring less than 5.5cms (about 2 inches), it is safer not to operate, as the risks of having an operation are greater than the benefits.

Treatment options for AAAs

Surgery is commonly advised if you develop an AAA larger than 5.5cm in maximum diameter (about 5 cm in women). For these larger aneurysms the risk of rupture is usually higher than the risk of surgery. If you have a family history of ruptured aneurysm; surgery is also likely to be advised. The two types of operation available to repair your AAA are open surgery or endovascular repair.

However, if your general state of health is poor, or if you have certain other medical conditions, this may increase the risk if you have surgery. In some circumstances therefore the decision to operate may not be straightforward, and your surgeon may advise that you be medically managed if you are unfit for surgery.

What will happen after my outpatients’ appointment?

If you are being considered for treatment you may be asked to return to undergo tests of your fitness for surgery and the associated risks, along with a CT scan to examine your AAA more closely. You will be discussed in a meeting involving a surgeon, radiologist and anaesthetist to agree the best options in your case. Your specialist vascular surgeon and team will then give you a clear explanation and you will have a full discussion involving your
personal choice before a decision is made. Your best interests will always be taken into account and you are not obliged to undergo any treatment that you do not want.

1. Medical treatment

If you are unfit for surgery at the current time, your doctor may wish to advise medical treatments aimed at keeping you healthy and reducing the risks of rupture of your AAA. These will include treating any high blood pressure and/or high cholesterol and improving your fitness by treating any heart, lung or kidney disease so that an operation may be performed at a later time. Patients with diabetes are less likely to have problems with surgery if their diabetic control is good. Regular moderate exercise can also help keep your heart and lungs healthy.

If you are fit for surgery there are two main ways in which the aneurysm may be repaired. Your surgeon will discuss the most appropriate method with you and, where possible, discuss your personal choice of repair. It should be noted that not all aneurysms are suitable for endovascular repair.

Is there anything I can do while waiting for the operation?

There are things that you can do to make yourself fitter for this operation, and also reduce the risk of developing further disease caused by atherosclerosis (hardening of the arteries).

• If you smoke - give up! We can refer you to the smoking cessation nurse who can provide you with further information
• If you have high blood pressure it is important that it is well controlled before the operation
• If you are diabetic keep your blood sugars well controlled
• Have your cholesterol (fat in your blood) measured. You may need to take a tablet to lower it
• Try to eat a healthy, low fat, low salt diet. Aim for 5 portions of fruit and vegetables a day, and fish twice a week (make one an oily one such as salmon, mackerel, sardines or tuna).

2. Open repair

The traditional operation involves cutting open your abdomen to replace the aneurysm with an artificial piece of artery (a graft). It is successful in most cases and the long term outlook is good. The graft usually works well for the rest of your life. Your surgeon will be able to tell you the success rate for this operation in his/her unit.

Complications: There is a 5-10% risk of death with this operation, however this risk must always be compared to the risk of the aneurysm rupturing (bursting). The risks will vary according to how good your health is. The risk of a major complication from an open operation is about 10% and includes:

• chest infections
• bleeding or infection in the wound
• heart attack
• stroke
• deep vein thrombosis (blood clots in the vein)
• pulmonary embolism (blood clots in the lungs)
• graft infection
• altered bowel pattern
• problems with the blood supply to the kidneys, bowel and legs
• pressure ulcers (bed sores)
• reoperation
• some men may lose the ability to have an erection (impotence).

If you are worried about any of the aspects of surgery please ask one of the medical or nursing staff. You will be helped to make the decision about whether to have surgery, but the final decision will be yours.

**What will happen before and after I am admitted to the vascular ward?**

Before you come into hospital, you will be asked to attend the pre-operative assessment clinic. You will be seen by a nurse and doctor, so that your medical information can be written down, any tests completed and blood tests taken. It will also be an opportunity for the operation to be explained, and for you to ask questions. Your tablets will be reviewed, and you may be asked to stop some of them before your surgery. We will also take swabs to check for any bugs that could lead to an infection.

You may need to have an appointment with our vascular anaesthetist for tests that will show how fit you are for both the surgery and the anaesthetic.

When you arrive on the ward you will meet the ward team who will be involved in your care. This includes:
The ward nurses who will show you the ward layout, and check over the paperwork, and your details. If needed, they will make a referral to other health care professionals such as the physiotherapist or occupational therapist. They will ask you questions about your plans for when you go home.

The doctors who will check through information from your pre-assessment, and order any further tests needed. They will ask you to sign a consent form for the operation.

An anaesthetist who will visit you to check your health, and test results. They will discuss the anaesthetic with you, and how your pain will be controlled. What does the operation involve? The anaesthetist will ensure that you are fully asleep. A cut is made either across or down your abdomen (tummy). The aorta is cut open so that an artificial artery or graft can be stitched inside. Sometimes this graft will attach on to the arteries at the top of each leg in which case you may have a cut in each groin. This graft will stay in place forever. Your skin will be joined back together with clips or stitches.

What will happen after the operation?

From the recovery area of the operating theatre you will go to either the high dependency or intensive care area for 24-48 hours. You will be closely monitored there, with more nurses and equipment than the ward areas. Occasionally it may be necessary for you to remain on the breathing machine for a short period of time. You will be attached to several machines and have a number of special tubes.

• A drip – this is a bag of special liquid going into your body through your veins. At this time you will not be able to eat or drink, as the bowel stops working for a while after surgery

• Nasogastric tube – this is a plastic tube, which goes through your nose to your stomach. It will drain any stomach contents so that you don’t feel sick. It is removed when your gut is working
• **Wound drain** – this is a tube into your tummy so that any blood or bruising can drain away. It is removed when the drainage has stopped

• **Urinary catheter** – is a tube into your bladder to drain urine. The drainage is measured closely by the staff

• **Oxygen mask** – for a few days you will be given oxygen via a mask

• **Epidural or PCA** – an epidural is a fine tube that is placed into your back and is attached to a pump, which gives you drugs to control any pain. A PCA (patient controlled analgesia) is a special drip that goes through a pump to give you painkillers. Either of these two methods will be used to ensure your pain is controlled

• **Heart Monitor** – you will be attached to a machine which monitors your heart rate

• **Blood Transfusion** – this may be required to replace some of the blood lost during the operation

• Your pulse, blood pressure, temperature, breathing rate and heart rhythm will be very closely monitored. Your wound will have a dressing on it and will be regularly checked.

**Your early recovery on the ward**

After 24-48hrs in the intensive care unit (ICU), and when your condition is stable you will return to the ward. You may still have oxygen, a drip, a urinary catheter and pain killers.
Pain
The incision (cut) in your abdomen is likely to be uncomfortable at first. The nurses will monitor your level of pain and initially you will be given painkillers via an epidural or PCA which you control yourself. Once you are eating and drinking, you will be able to take painkilling tablets by mouth. The pain will slowly improve, but you may get twinges and aches for between 3-4 weeks. It is important that your pain is controlled so that you can cough well and move about.

Eating and drinking
When your bowels are working again you will be allowed to start drinking and then build up to a light diet, and your drip will be stopped. This can take up to 5 days. It is normal to lose your appetite after surgery; as a result of this you may lose weight. You may be seen by a dietician who might recommend that you take supplementary drinks to provide more nutrition to build your strength and aid recovery.

Your wound
There will be a dry dressing over your tummy wound. The stitches or clips will usually be removed between 7-10 days after the operation. If your stitches are not removed in hospital it may be arranged for your GP’s practice or district nurse to remove them and check your wound. Your wound will be checked for any signs of infection, which will be treated if they occur.

Moving around
You will be helped to start moving and walking as soon as possible, firstly by sitting in the chair, then by walking to the bathroom and then around the ward. You will be given a daily injection of heparin to reduce the risk of blood clots, and if suitable, some patients will be given special support stockings.
Medication

The doctors will review your tablets. Most people will be sent home on a small dose of aspirin, to ensure that their blood is less sticky and on a statin to reduce their cholesterol levels. If you are unable to take aspirin an alternative drug may be prescribed. Other tablets, such as those for blood pressure, will be reviewed.

Preparing for discharge

Preparing for home should start as early as possible. Discharge is usually planned for about 10 days after your operation. It is a good idea to have someone to help look after you for a while, or some patients choose to live with a member of their family for a short time. Think about the tasks, or activities you do which may be difficult, especially if you have a caring role for someone else. Stocking up on frozen or tinned items means you don’t need to go shopping immediately. If there are complications with your recovery you may need to stay in hospital a little longer.

Your recovery at home

Recovery times vary, and it can take several weeks to feel ‘back to normal’. It also depends on your health and activity before surgery.

Your wound

Your wound will be red at first but will gradually fade over six months or more. You can wash normally with mild soap and water when you have a bath or shower. If your wound becomes red, sore or is oozing please let your GP know, as this could be a sign of an infection. Protecting your scar from exposure to sunlight during the first year after having surgery will prevent the scar becoming darker.

Sleeping and feeling tired

It is normal to feel tired for at least 4-6 weeks after your operation. You might need a short sleep in the afternoon for a few weeks, as you gradually increase your level of activity. You may feel low in
spirits for a while, so it is good for you and your family to be aware of this.

**Diet and appetite**

It can take a few weeks for your appetite and diet to return to normal and for you to regain any weight you may have lost in hospital. Try taking smaller, regular meals. You may find your bowel motions take time to become more regular again.

**Mobility, hobbies and activity- start slowly!**

The muscles underneath your wound may take up to 6-8 weeks to fully heal. During this time, you should not lift heavy objects, or undertake strenuous activities or sports such as golf. Taking regular exercise such as a short walk combined with rest is recommended for the first few weeks and you can gradually increase this. Taking on light household chores, and walking around your house is a good starting point.

**Working**

When to return to work will depend on the type of job that you do. Most people need to wait 6-12 weeks before returning to work, and may work shorter hours for a few weeks, and build back up to their normal hours. Your GP will be able to advise you further.

**Sex**

You can resume your sex life when you feel comfortable. Sometimes, men have problems sustaining an erection after this operation, as the nerve supply may be disturbed. This affects approximately 10% of men. It is not known what effect, if any, AAA repair has on a woman’s sex life. If you experience problems, your GP or consultant will be able to refer you to a specialist.
Driving

For safety and insurance reasons patients are unable to drive for 4-6 weeks after their operation. If you are in doubt, you should check with your GP and insurance company.

Exercise programme

Here are some tips for planning your exercise at home:

**Week 1** Walking gently around the house. Take an afternoon nap

**Week 2** Take a daily 3-5 minute small walk around your house and garden. Take an afternoon nap, if needed

**Week 3** Take a short 5-10 minute daily walk in the morning and afternoon. Take a nap in the afternoon if needed

**Week 4** Take a daily 10-20 minute daily walk, twice a day. You may also still need a daily nap.
A record of your recovery

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Complications and what to look out for

If you think that there is something wrong with your wound once you get home, you should contact your GP, or the ward from which you were discharged.

The things to keep a look out for and to tell the vascular team about are:

• pain in your legs when walking
• pain, or a redness or swelling in the wound
• continued poor appetite, upset bowel movements.

If you have other concerns or questions during your recovery at home, write them down in this booklet to ask at your follow-up appointment. If you develop sudden pain or numbness in your legs that does not get better within a few hours then contact the hospital immediately. Likewise if you experience severe pain in your back or stomach, pain or swelling in your calves, any shortness of breath or pains in your chest, you must seek medical attention as soon as possible.

If you need to go back to the hospital, it is best to ask someone to take you.

Outpatient follow-up

After an open repair, recovery is slower, but the need for continued follow-up is less. You will be seen in the vascular clinic 4-6 weeks after your discharge. Remember to bring a list of your queries, if you have them. You will not need a scan to check the graft, but the doctor will ask you a few questions about how you have been recovering. Once you have fully recovered from your operation, you will be discharged back to the care of your family doctor.
3. Endovascular repair

This involves inserting a stent within the aneurysm through small groin incisions, using X-rays to guide the graft into place. The advantage of this type of repair is that there is no abdominal surgery. This technique is therefore safer than the traditional operation, and you need to spend less time in hospital. A disadvantage is that some patients have to undergo a further operation at a later stage to refine the initial procedure.

Not every patient or every aneurysm is suitable for this procedure. In particular, aneurysms arising close to or above the kidneys are more difficult to treat in this way. You will be assessed with a scan to determine if your aneurysm can be treated by endovascular repair. If suitable you will be offered a choice of type of repair by your surgeon. If this cannot be undertaken at your local hospital, you may need to travel to a centre that can perform endovascular repair. Your surgeon will be able to tell you the success rate for this operation in his/her unit.
Endovascular aneurysm sealing devices (EVAS) are a new approach to the standard endovascular repair (EVAR). It uses a polymer filling to form a rubbery cast within the aneurysm sac, which excludes it from the circulation. The aim is to stabilise the stent graft position and reduce the rate of endoleaks and repeat interventions. This procedure is not currently offered at this hospital.

**Complications:**

The risk of a major complication is lower for endovascular repair, as the operation does not interfere with the circulation as much as the open surgery does. However, the graft attachment is not as secure as in the open operation. As a result, you may need follow-up with scans to ensure that the graft has not slipped. It is estimated that about 1 in 10 patients may need a further intervention or operation on their graft.

The risk of complications varies with each patient but includes:

- complications with the aneurysm during the procedure, causing the surgeon to switch to open surgery
- leaking from the stent, which may need further surgery
- heart attack
- kidney problems
- stroke
- bleeding or infection in the wound
- graft infection
- problems with blood supply to the bowel, kidneys and legs
- deep vein thrombosis (blood clots in the vein)
- pulmonary embolism (blood clots in the lungs)
- post-operative chest infections.
All operations carry a risk, and there is a 1-2% risk of death with this surgery. Despite this, however, the risk must always be compared to the risk of your aortic aneurysm rupturing (bursting). If you are worried about any of the aspects of surgery please ask one of the medical or nursing staff. You will be helped to make the decision about whether to have surgery, but the final decision will be yours.

**What will happen before, and after I am admitted to the vascular ward?**

Before you come into hospital, you will be asked to attend the pre-operative assessment clinic. You will be seen by a nurse and doctor, so that your medical information can be written down, any tests completed and blood tests taken. It will also be an opportunity for the operation to be explained, and for you to ask questions. Your tablets will be reviewed, and you may be asked to stop some of them before your surgery.

It may also be necessary for you to have an appointment with our vascular anaesthetist for tests that will show how fit you are for the surgery. When you arrive on the ward you will meet the ward team who will be involved in your care, such as:

**The ward nurses**

They will show you the ward layout, and check over paperwork that has already been filled in. If needed, they will make referral to other health care professionals such as the physiotherapist, or occupational therapist. They will ask you questions about your plans for when you go home.

**The doctors**

They will check through information from pre-assessment, and order any further tests needed. They will ask you to sign a consent form for the operation.
An anaesthetist
Will visit you to check your health, and test results. They will discuss the anaesthetic and how your pain will be controlled.

What will happen after the operation?
From the recovery area of the operating theatre you will go to either the high dependency or intensive care area for 24-48 hours. You will be closely monitored there, with more nurses and equipment than the ward areas.

You will have a number of special tubes
• A drip – this is a bag of special liquid going into your body through your veins. At this time you will not be able to eat or drink
• Wound drain – sometimes these are used. This is a tube into your groin area which allows blood or bruising to drain away. It is removed when the drainage has stopped
• Urinary catheter – this is a tube in your bladder to drain urine. The drainage is measured closely by the staff
• Oxygen mask – for a few days you will be given oxygen via a mask
• Epidural or PCA – an epidural is a fine tube that is placed into your back and is attached to a pump, which gives you drugs to control any pain. A PCA (patient controlled analgesia) is a special drip that goes through a pump to give you painkillers. Either of these two methods will be used to ensure your pain is controlled
• Your pulse, blood pressure, temperature, breathing rate and heart rhythm will be very closely monitored
• Your wound will have a dressing on it and will be regularly checked.

Your early recovery on the ward
Most patients will return to the vascular ward if the anaesthetist is happy with their condition.
Pain
The incisions (cuts) in your groins will be uncomfortable at first. The nurses will monitor your level of pain and initially you will be given painkillers via an epidural or PCA which you control yourself. Once you are eating and drinking, you will be able to take painkilling tablets by mouth. The pain will slowly improve, but you may get twinges and aches for between 2-3 weeks. It is important that your pain is controlled so that you can cough well and move about.

Eating and drinking
Usually on the morning after your operation you will be able to eat breakfast and a light diet. It is normal to lose your appetite after surgery; as a result of this you may lose a little weight. If needed, you can be seen by a dietician, who might recommend that you take supplementary drinks in order to support your recovery.

Your wound
There will be a dry dressing over the wounds in your groins. The stitches will usually be removed between 7-10 days after the operation. If your stitches are not removed in hospital it may be arranged for your GP practice nurse or district nurse to remove them and check your wound. Your wound will be checked for any signs of infection, which will be treated if they occur.

Moving around
By day 2 you should be finding it easier to walk around the ward area, and by day 3-4 you should be independently walking the full length of the ward. You will be given a daily injection of heparin to reduce the risk of blood clots, and if suitable, some patients will be given special support stockings to wear. It is a good idea to exercise your legs in bed. Moving around will not cause any damage to the graft, or to your wound, and will help your recovery. If needed, a physiotherapist will give you individual assistance and instructions to help you regain your normal mobility.
Medication

The doctors will review your tablets. Most people will be sent home on a small dose of aspirin, to ensure that their blood is less sticky and on a statin to reduce their cholesterol levels. If you are unable to take aspirin an alternative drug may be prescribed. Any blood pressure tablets will be reviewed. You might already be on these tablets.

Preparing for discharge

Most patients go home 3-5 days after their surgery, although this may be longer if complications occur.

Preparing for home should start as early as possible. It is a good idea to have someone to help look after you for a while, or some patients choose to live with a member of their family for a short time. Think about the tasks, or activities you do which may be difficult, especially if you have a caring role for someone else. Stocking up on frozen or tinned items means you don’t need to go shopping immediately. If there are complications with your recovery you may need to stay in hospital a little longer.

Recovery at home

Recovery times vary, and it can take several weeks to feel ‘back to normal’. It also depends on your age, health and activity before surgery.

Your wound

Your wound will be red at first but will gradually fade over six months or more. You can wash normally with mild soap and water when you have a bath or shower. If your wound becomes red, sore or is oozing please let your GP know, as this could be a sign of an infection. Protecting your scar from exposure to sunlight during the first year after having surgery will prevent the scar becoming darker.
Sleeping and feeling tired
It is normal to feel tired for at least 4-6 weeks after your operation. You might need a short sleep in the afternoon for a few weeks, as you gradually increase your level of activity. You may feel low in spirits for a while, so it is good for you and your family to be aware of this.

Diet and appetite
It can take a few weeks for your appetite and diet to return to normal and to regain any weight you may have lost in hospital. Try taking smaller, regular meals. You may find your bowel motions take time to become more regular again.

Mobility, hobbies and activity – start slowly!
The muscles underneath your wound may take up to 6-8 weeks to fully heal. During this time, you should not lift heavy objects, or undertake strenuous activities or sports such as golf. Taking regular exercise such as a short walk combined with rest is recommended for the first few weeks and you can gradually increase this. Taking on light household chores, and walking around your house is a good starting point.

Working
When to return to work will depend on the type of job that you do. Most people need to wait 6-12 weeks before returning to work, and may work shorter hours for a few weeks to build back up to their normal hours. Your GP will be able to advise you further.

Sex
You can resume your sex life when you feel comfortable. Rarely, men can have problems sustaining an erection after this operation as the nerve supply may be disturbed. This affects approximately 10% of men. It is not known what effect, if any, AAA repair has on a woman’s sex life. If you experience problems, your GP or consultant will be able to refer you to a specialist.
Driving
For safety and insurance reasons patients are unable to drive for 4 weeks after their operation. If you are in doubt, you should check with your GP and insurance company.

Exercise programme
Here are some tips for planning your exercise at home but your ability to exercise will depend on your fitness before surgery.

**Week 1** - walk gently around the house and garden. Take an afternoon nap

**Week 2** - take a daily 5-7 minute small walk around your house and garden. Take an afternoon nap, if needed

**Week 3** - take a short 7-15 minute walk in the morning and afternoon. Take a nap in the afternoon if needed

**Week 4** - take a daily 15-20 minute walk, twice a day. You may also still need a daily nap.
A record of your recovery

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**Follow-up** Long term surveillance (follow-up or observation) is necessary to ensure that the graft is working correctly. This will involve CT scans initially, followed by ultrasound.

**Consent to store your personal information**

Vascular surgeons record information about surgical interventions, including AAA repairs, on the National Vascular Database (NVD). This is a secure database that is used to help monitor and improve vascular services throughout the country.

Therefore, you (or your nearest relative) may be asked to give permission for your personal information to be stored on the NVD. Although the database is a national system, strict data governance means personal details on the NVD can only be accessed by staff directly involved in an individual’s treatment. Patient information is confidential and is not passed on to third parties other than healthcare professionals directly involved in an individual’s care. You need to confirm with your vascular surgeon whether you are happy for them to store your personal information on the NVD.

**What can I do to help myself?**

**Smoking** - If you are a smoker the single most important thing you can do to help yourself is to give up smoking. Stopping smoking will also help to protect all of your arteries, making it less likely that you will suffer from heart attacks or strokes. Giving up is not easy but there is a smoking cessation service and support groups that can help. Your vascular specialist nurse or GP practice nurse can advise you about these.

**Inactivity** - Gentle exercise such as walking and cycling are recommended to help to improve your overall level of fitness. Exercise helps your body to produce healthy cholesterol and this helps to protect your arteries against bad cholesterol.

**High blood pressure** - High blood pressure is a known risk factor for rupture of aneurysms. It is very important that you have your blood
pressure checked regularly, at least every 6 months. If you have been prescribed medication for high blood pressure you must make sure that you take it according to the instructions given.

**Diabetes** - If you have diabetes it is important that your blood sugar levels are well controlled.

**High blood cholesterol levels** (fatty substance) in your blood. You should eat a healthy balanced diet and try to reduce any excess weight. It is important to reduce the level of cholesterol in your blood: you will be given advice on how to do this. Your vascular nurse can refer you to a dietician if needed.

You may be prescribed a statin drug to lower your cholesterol level and low-dose aspirin to help prevent blood clots from forming.

**Driving with an AAA**

If you have a small AAA (<5.5cm) you are allowed to continue to drive. The DVLA should be notified if your aneurysm reaches 6cm in diameter and you are allowed to continue to drive if you have had satisfactory medical treatment and there is no further enlargement of your AAA. If your AAA reaches 6.5cm in diameter you are disqualified from driving. HGV drivers are disqualified from driving if their AAA is > 5.5cm, but can resume driving if the AAA is successfully treated.
**Contact numbers**

If you have any questions or queries you can contact your GP or alternatively the secretary for your consultant surgeon.

Debbie Ruff  Lead Nurse Vascular  Tel: 0161 778 5090

Zeadia Bruce  Clinical Nurse Specialist  Tel 0161 778 5090

Mr Kelleher  Tel: 0161 627 8981

Mr Badri/  Tel: 0161 627 8698

Mr Ibrahims

Mr Desmarowitz/  Tel: 0161 720 2253

Mr Madan

Mr Antoniou  Tel: 0161 627 8981
You may like to look at the following websites for further information. However, as we are not responsible for these websites we cannot endorse them.

**NHS Direct**
Tel: 0845 4647
www.nhsdirect.nhs.uk

**Abdominal Aortic Aneurysm Quality Improvement Programme**
Tel: 0117 323 2267
www.aaaqip.com

**Vascular Society of Great Britain and Ireland**
Tel: 020 7973 0306
www.vascularsociety.org.uk

**For Help Giving up Smoking:**
NHS Smoking Help-Line 0800 169 0169

**The Circulation Foundation**
Web: www.circulationfoundation.org.uk
Publishes a number of patient information leaflets to help identify and treat vascular illness. It also funds research into the prevention and causes of vascular disease.

**NHS screening programmes**
Web: www.screening.nhs.uk/programmes
Includes details of the AAA screening programmes in the various countries of the UK.
If English is not your first language and you need help, please contact the Ethnic Health Team on 0161 627 8770

For general enquiries please contact the Patient Advice and Liaison Service (PALS) on 0161 604 5897

For enquiries regarding clinic appointments, clinical care and treatment please contact 0161 624 0420 and the Switchboard Operator will put you through to the correct department / service

Jeżeli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy proszę skontaktować się z załogą Ethnic Health pod numerem telefonu 0161 627 8770

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