What are varicose veins?
Varicose veins are enlarged and twisted veins in the leg. They are very common and affect up to 3 in 10 people. They are more common in women with just over 3 in 10 women being affected between the ages of 35 and 70 compared to just over half of that number in men of the same age. They tend to run in families and are made worse by pregnancy and in people whose jobs mean they do a lot of standing. Your surgeon has recommended an operation on your varicose veins. However, it is your decision to go ahead with the operation or not. This document will give you enough information about the benefits and risks so you can make an informed decision. If you have any questions that this document does not answer, you should ask your surgeon or any member of the healthcare team.

How do varicose veins happen?
Veins carry blood up the leg and back to the heart. When we stand up, our blood has to be pumped 'uphill' against gravity. Our calf muscles act as a pump and the veins contain many one-way valves to help the upward flow. Both legs contain a system of deep veins, which are buried within the muscles of the leg, and a system of superficial veins which run just underneath the skin.

Sometimes weaknesses in the walls of the superficial veins cause them to enlarge. The valves then fail to work properly and blood can flow in the wrong direction. The result is a build-up of pressure in the veins, which bulge out as varicose veins (see figure 1).

![Varicose veins diagram](image)

**Figure 1.**
The cause of varicose veins
When the veins enlarge, the valves fail and blood flows backward

What are the benefits of surgery?
You should no longer have varicose veins and your symptoms should improve.
Are there any alternatives to surgery?
It is usually safe to leave the varicose veins alone, although problems may happen. Surgery is the only dependable way to remove most varicose veins and the associated symptoms. Varicose veins surgery will not remove fine thread veins. If you are having surgery purely for cosmetic reasons, you need to ask your surgeon whether an operation will help. This will make your expectations realistic and will avoid disappointment with the final result.
Support stockings can often prevent the veins from getting worse and ease aching. It is helpful to raise your leg when resting. It is also possible to inject some varicose veins with a solution that sticks the walls of the veins together, preventing the veins from filling with blood. However, it is only suitable for a small number of veins or fine thread veins. In 13 out of 20 people the problem comes back within five years of the procedure.

What will happen if I decide not to have the operation?
The varicose veins will not disappear without surgery. The following problems may arise.
• Unsightly appearance.
• Itching, aching and pain.
• Pigmentation (dark discolouration) of the skin around the ankle.
• Inflammation (phlebitis).
• Ulcers (or sores) are unusual but can be caused by some types of varicose veins.
• Bleeding from varicose veins can happen but is very unusual. Other problems can happen but they are rare.

What does the operation involve?
Before the operation, your surgeon will mark the veins on your leg and will show if a cut will be made in your groin or at the back of your knee. The operation is usually performed under a general anaesthetic. However, a variety of anaesthetic techniques are possible. Your anaesthetist will discuss the options with you and will recommend the best form of anaesthesia for you.
Your surgeon will disconnect the superficial veins from the deep veins through a cut in your groin or the back of your knee. They will also make many small cuts along the length of the varicose veins where the veins are removed (see figure 2). Often the vein above the knee is ‘stripped out’ using a special instrument.
Your surgeon will then close the wounds with stitches although the small cuts often do not need stitching. Your leg will be dressed with a tight bandage or similar dressing to reduce bleeding and bruising.

Figure 2.
Common sites for scars in varicose vein surgery
What can I do to help make the operation a success?

• Lifestyle changes
If you smoke, try to stop smoking now. There is strong evidence that stopping smoking several weeks or more before an anaesthetic reduces your chances of getting complications.
If you are overweight, losing weight will reduce your chances of developing complications.

• Medication
You should continue your normal medication. However, if you are on warfarin, you will need to stop taking it before your operation. Make sure your surgeon is aware you are on warfarin and follow the advice about stopping it.
If you are on hormone replacement therapy or the oral contraceptive pill, it may be advisable to stop these medications before your operation. If stopping the contraceptive pill, make sure you take another form of contraception.
Before stopping any medication, you should always ask the advice of your surgeon or doctor.

What risks or complications can happen?
We try to make sure your operation is safe. This may include prescribing medication to reduce the risk of complications. Most operations are successful with few complications.
However, every procedure has risks and potential complications. Those most relevant to this operation are listed below. Please discuss them with your doctor if there is anything you do not understand.

The risks and complications fall into three categories.
1 Complications of anaesthesia
2 General complications of any operation
3 Specific complications of this operation

1 Complications of anaesthesia
Your anaesthetist will be able to discuss with you the risks of having an anaesthetic.

2 General complications of any operation
• Pain, which happens with every operation. The healthcare team will try to reduce your pain. They will give you medication to control the pain and it is important that you take it as you are told so you can move about as advised.
• Bleeding during or after surgery. This rarely needs a blood transfusion or another operation but it is common to get bruising of the leg. You may also feel a lump under the skin caused by bruising and this may take a few weeks to settle.
• Infection in a surgical wound (risk: 3 in 100), which may need treatment with antibiotics.
• Unsightly scarring of the skin. The scarring will initially be red but will gradually fade to a fine white line.
• Blood clots in the legs (deep-vein thrombosis), which can occasionally move through the bloodstream to the lungs (embolus), causing breathing difficulties. An embolus can occasionally cause death. Nurses will encourage you to get out of bed soon after surgery and may give you injections to reduce the risk of blood clots. If you have had a deep-vein thrombosis in one of your legs, let your surgeon know as this often means surgery should not be performed on that leg.
3 Specific complications of this operation

- Developing a lump under a wound caused by blood collecting (haematoma) (risk: 3 in 100).
- Developing a lump under the wound in the groin caused by fluid collecting (seroma) (risk: 1 in 200). This can lead to the fluid leaking. The risk is higher if you have surgery for varicose veins that keep coming back.
- Numbness or tingling around some of the small cuts or in the leg (risk: 1 in 10). This may be permanent.
- Damage to nerves leading to weakness in the leg or foot (risk: 1 in 1,000). This sometimes improves but can be permanent.
- Continued varicose veins. It is not usually possible to remove every single varicose vein.
- Swelling of the leg, if blood does not drain from the leg properly. This is most likely to happen if there is problem with the deep veins such as a deep-vein thrombosis.
- Major injury to the main arteries, veins or nerves of the leg. This is very rare.

How soon will I recover?

- In hospital
  After the operation you will be transferred to the recovery room and then to the day-case ward. You should be able to go home later on the same day.
  You should arrange for a responsible adult to take you home and stay with you for at least 24 hours. You will need support for a few days.

- At home
  When you go home you will have a bandage on your leg. This will be removed by a nurse who will check your wounds and may give you a support stocking to wear. If you need a support stocking, you should wear it for up to six weeks or until you are able to move normally.
  Once at home you should be as active as possible. When you are resting, keep your legs raised on a stool.
  If you are worried about anything once you are at home, contact a member of the healthcare team on the phone number they give you. They should be able to reassure you or arrange for you to have a check-up.

- Returning to normal activities
  You should be able to return to work after one to three weeks but this may vary depending on your type of work.
  As long as your wounds have healed, you should be able to carry out normal activities by four weeks.
  You should not drive for at least the first week after your operation. Do not drive until you are confident about controlling your vehicle and always check with your insurance company first.

- The future
  You should make a full recovery. If surgery was performed for ulcers, these should gradually heal. Skin pigmentation will not disappear but should not get worse. You will notice that the varicose veins have gone as soon as the support stockings or bandages are removed.
  Occasionally varicose veins come back, either in the same place or in other parts of the leg (risk: less than 1 in 5 after 5 years).
Summary

Varicose veins are a common condition and can lead to complications if left untreated. Non-surgical treatments help to control symptoms but will not remove the varicose veins. Surgery is very safe and effective at removing the varicose veins. However, risks and complications can happen. You need to know about them to help you make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Further information

You can get further information locally from the Patient Advice and Liaison Service (PALS) on 01793 604 031.

You can also get further information from:
• www.aboutmyhealth.org - for support and information you can trust
• Vascular Surgical Society of Great Britain and Ireland at www.vascularsociety.org.uk
• NHS Direct on 0845 46 47 (0845 606 46 47 - textphone)
• www.eidohealthcare.com

Acknowledgements

Author: Mr Justin Yeung MRCS
Illustrations: Lifeart Surgery © 2001 (Lippincott, Williams and Wilkins), Hannah Ravenscroft RM

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