

# Cyanoacrylate glue occlusion for varicose veins

Information for the public

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[nice.org.uk](http://nice.org.uk)

## What has NICE said?

There is not much good evidence about how well [cyanoacrylate glue occlusion](#) for [varicose veins](#) works or how safe it is. The procedure should only be used if extra care is taken to explain the risks, and extra steps are put in place to record and review what happens. It should only be done by health professionals who can offer a range of treatments for varicose veins, and who have had special training in the procedure.

## *What does this mean for me?*

Your health professional should fully explain what is involved in having this procedure, and discuss the possible benefits and risks with you. In particular, they should explain the uncertainty about the evidence on how likely it is to improve your symptoms and possible side effects. You should also be told how to find more information about the procedure. You should only be asked if you want this procedure after having this discussion. Your health professional should ask you if details of your procedure can be collected.

## *Other comments from NICE*

NICE said that cyanoacrylate glue occlusion may be possible without the need for large doses of local anaesthetic, or compression bandaging. NICE also said that, because there is relatively little published evidence about the procedure, there may be rare or uncommon risks that have not been seen yet.

## The condition

Small valves inside the veins help blood to flow properly through them. Varicose veins develop when these valves do not work properly, allowing blood to collect in the veins. The veins then swell and this causes the valves to deteriorate further. The great saphenous vein (a vein that runs just beneath the skin from the foot up to the thigh) is most commonly affected.

Many people have no symptoms from varicose veins but, if they do, these can include heaviness, aching, throbbing, itching, cramps or tiredness in the legs. Compression tights or stockings may improve symptoms. If the symptoms become severe (with skin discolouration, inflammation or skin ulcers), people may be offered surgery to remove or tie off the affected veins, or procedures to close the veins using lasers, chemicals or heat energy.

NICE has looked at using [cyanoacrylate glue occlusion](#) as another treatment option.

NHS Choices ([www.nhs.uk](http://www.nhs.uk)) and NICE's information for the public about [varicose veins in the legs](#) may be a good place to find out more.

## The procedure

The aim of cyanoacrylate glue occlusion is to close a varicose vein by sticking its walls together. The cyanoacrylate glue is put into the affected vein via a special tube inserted at the top of the great saphenous vein, using ultrasound to guide it. Smaller amounts of local anaesthesia can be used than for some other procedures for varicose veins.

## Benefits and risks

When NICE looked at the evidence, it decided that there is not much good evidence about how well it works or how safe it is. The 5 studies and case report that NICE looked at involved a total of 406 patients.

Generally, they showed the following benefits:

- complete closure of the affected veins in all patients at 48 hours and 1 month, which was still evident in about 90% of patients at 24 months
- a significant improvement in symptoms at 3 and 12 months
- no swelling in 84% of legs at 6 months nor in 65% of legs at 24 months

- no varicose veins in 50% of legs at 12 months and none in 35% of legs at 24 months
- no pain in 84% of patients at 6 months and in 64% at 24 months.

The studies showed that the risks of cyanoacrylate glue occlusion included:

- thread-like clots across the junction of the great saphenous and femoral veins at the top of the leg in about 20% of patients after the procedure that cleared by 6 months without any problems
- inflammation of the vein in up to 40% of patients, which got better without treatment
- mild bacterial skin infection in 1 patient, which got better with oral antibiotics, and moderate infection where the tube was inserted in 1 patient
- inflammation and infection of the skin in 15% of patients, which got better quickly with compression therapy.

NICE was also told about some other possible risks: nerve injury; and injection of the glue into the wrong place (that is, under the skin, in the muscle or the space around the vein).

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

## Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?

- What may happen if I don't have the procedure?

## About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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## Accreditation

