

Leech therapy

The aim of this information sheet is to help answer some of the questions you may have about having leech therapy. It explains the benefits, risks and alternatives of the procedure, as well as what you can expect when you come to hospital. If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you.

What are leeches and why should I have leech therapy?

In nature, leeches attach to animals and suck out small amounts of blood as food. Leeches used for medical treatment are known as **Hirudo medicinalis** and are specially farmed in Wales.

In medicine, particularly plastic and reconstructive surgery, leeches may be used to help improve blood flow in an area of tissue or skin flap that has poor blood circulation. Leeches do this by removing clotted blood (congested blood) from delicate areas, such as underneath a flap of skin. By removing this clotted blood, leeches can restart blood flow in the small blood vessels of the flap. This helps to prevent the tissues from dying.

When the leech attaches to a site, it releases three important substances into the area whilst drawing the clotted blood away. These substances are:

- a local anaesthetic (to reduce pain)
- a local vasodilator (to improve blood supply)
- hirudin and calin (which prevent further clotting).

The amount of time that the leech attaches to the affected site can vary. However, one of the main advantages of leech therapy is that blood drainage is maintained after the leech has dropped off. This means that blood can continue to flow to areas of tissue that have poor circulation for up to 48 hours.

What are the risks of leech therapy?

There are some risks associated with using leech therapy. These include:

- **Infection** – There is a small risk of infection from the leech. Although they are specially farmed for medicinal use, they contain bacteria in their gut that helps them digest blood. To prevent any infection complicating the success of the flap operation, your doctor will give you an antibiotic for the duration of your leech therapy. Please tell your medical team if you are allergic to any medicines.
- **Bleeding** – The leech site may continue to ooze blood for several hours after the leech has dropped off. The nurses will monitor the wound site and check your blood levels to check you are not becoming anaemic.

Are there any alternatives?

We use leeches to try and prevent the need for another operation. If nothing is done, blood may clot and prevent blood flow to the flap. This may lead to some or all of the tissue dying and will result in the flap needing to be removed.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

You should receive the leaflet, **Helping you decide: our consent policy**, which gives you more information. If you do not, please ask a member of staff caring for you for a copy.

What happens during leech therapy?

The nurse will explain leech therapy to you and make sure you understand the process before applying the first leech. Please do not hesitate to ask any questions. If you agree to go ahead with the therapy, then the nurse will clean the area of congested skin/tissue and carefully put the leech in place.

How many leeches we use, how often we apply them and the duration of therapy depends on the severity of the congestion. Generally they are applied one at a time, and may even be applied continuously at first. The nursing staff will apply and supervise the leeches.

The nurses will direct the leeches to attach to the congested area. If there is difficulty in getting the leech to attach, they may cover the healthy skin/tissue with a dressing to ensure the leeches stay in the affected area. The nurses will closely monitor the leeches. Some patients may like to be involved in their own monitoring, where they alert the nurse when the leech has become unattached.

To check if the leech therapy is working, the nurses will monitor the colour of the skin and the oozing. The nurses will clean away any dried blood to maintain oozing at the site. If the colour is returning to normal (a healthy pink colour) then the circulation has improved. It is important not to stop leech therapy too soon, as it may take three to five days for new blood vessels to grow to maintain a good blood supply.

Once the leech has finished feeding, it may fall off or be removed. Each leech is used only once and is then humanely disposed of.

Will I feel any pain?

No. The leech produces an anaesthetic, which makes attaching them painless.

What do I need to do?

You will be asked to remain in a position that allows the leech therapy to work. Depending on the area being treated, you may need to stay in your bed or chair keeping the affected area elevated for a period of time.

You will be asked to avoid eating or drinking any caffeine-containing food or drinks (such as tea; coffee or cola) and to avoid or minimise the use of nicotine-containing products (such as cigarettes or nicotine replacement therapy) if possible, during your hospital stay. This is

because caffeine and nicotine cause your blood vessels to narrow, and this may affect the success of your treatment.

What do I need to be aware of after the leech therapy finishes?

You will usually continue antibiotics after the therapy has finished. Otherwise there are no specific aftercare instructions. However, if you feel unwell (for example, if you experience fever, increased redness or pain in the area) please let the nurse caring for you know, or contact the ward or your GP if you have been discharged.

Contact us

If you have any questions or concerns about leech therapy, please talk to your clinical team, including your plastic surgeon, plastic clinical nurse specialist, nursing team or pharmacy staff.

You can also speak to the ward sister or nurse in charge of **Alan Apley ward** on **020 7188 0561**.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

t: 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** pals@gstt.nhs.uk

Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

t: 020 7188 8815 **fax:** 020 7188 5953

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare to help you make choices about your health.

w: www.nhs.uk