

## Reference/Bibliography for leaflet

Leech Therapy: Information for patients.

Oxford University Hospitals NHS Trust. Accessed April 2021



St Helens and Knowsley  
Teaching Hospitals  
NHS Trust

## Burns and Plastics Leech Therapy

### Patient Information Leaflet

This leaflet can be made available  
in alternative languages / formats on request.

如有需要，本传单可提供其他语言/版式  
此單張的其他語言/格式版本可按要求提供

Na żądanie ta ulotka może zostać udostępniona  
w innych językach/formatach.

Whiston Hospital  
Warrington Road,  
Prescot, Merseyside, L35 5DR  
Telephone: 0151 426 1600

St Helens Hospital  
Marshall Cross Road,  
St Helens, Merseyside, WA9 3DA  
Telephone: 01744 26633

 /sthknhs  @sthk.nhs  
[www.sthk.nhs.uk](http://www.sthk.nhs.uk)

**Author:** Educator  
**Department:** Burns and Plastics  
**Document Number:** STHK1647  
**Version:** 001  
**Review Date:** 01 / 04 / 2024

## Introduction

This leaflet has been written to help you with any queries or concerns that you may have about leech therapy.

If after reading this leaflet you have any unanswered queries or concerns, please ask the nurse or doctor looking after you.

## What are leeches and why should I have the therapy?

Leeches occur naturally in nature and suck out blood from animals for food. They were used as treatments historically and fell out of favour as new treatments were discovered.

Their use has been rediscovered and are used in hospitals to treat wounds and other conditions.

Leeches used for such conditions are medical leeches.

The term for these leeches is `Hirudos Medicinalis`. They are bred specifically for such use.

In plastic and reconstructive surgery, leeches are used to improve blood flow in an area of skin or flap which has a poor blood flow.

Leeches do this by removing the clotted blood from the areas where blood has congested e.g. under a flap of skin or a toe or finger.

By removing the clotted blood the leech may help to prevent the skin from dying by helping the blood flow improve in the smallest blood vessels in the skin area of concern.

## Will I feel any pain?

No. The leech produces a local anaesthetic which will prevent any discomfort when attached to the skin.

If you have any further queries about leech therapy speak to your Consultant team, or Ward Manager on Ward 3A.

**If you are expecting an outpatient appointment but do not receive one, please contact your Consultant's Secretary.**

## The treatment

The nurse will again go through what the treatment entails and will clean the area where the leech is to be applied. You will be monitored during the treatment.

The number of leeches to be applied will depend on the size of the area to be treated.

The nurse will guide the leech/leeches to the area where they are required and ensure that they attach themselves correctly.

The nurse will sit with you and monitor the position of the leeches and until they have finished feeding. A dressing may be applied if required.

You will be asked to remain still so that the leeches remain where they were placed.

To make sure that the treatment is working the nurse will monitor the colour of your skin and the amount of oozing around the area where the leech/s are placed. There will be some oozing as the treatment relieves the congested area.

The leech/s will be in place for 30 to 60 minutes. Once the leech has finished feeding it will fall off or be removed by the nurse.

Each leech is used once only and is humanely disposed of.

Once the leech/s have finished and been removed, the nurse will clean the site of any blood as this will keep the blood flowing.

If the colour of the tissue has returned to a healthy pink colour this indicates that the circulation has improved.

It is important that the leech therapy continues as it may take 3 to 5 days for new blood vessels to grow and maintain a healthy blood supply to the affected area.

## How does using a leech do this?

When a leech is put onto the skin three substances are released:

1. A natural local anaesthetic (helps to reduce any pain)
2. A local vasodilator (to improve the blood supply to the area of skin)
3. Hirudin and Calin which are natural anticoagulants to prevent further clotting

The amount of time that the leech is placed onto the skin can vary between 15 to 20 minutes.

Using a leech has an advantage that the blood will continue to flow after it has dropped off the skin.

The blood can continue to flow for up to 10 hours after the leech has been removed thus allowing for a flap, toe or finger to re-establish its blood flow thus preventing any dying off of tissue which has poor blood flow.

## What are the risks of using leech therapy?

There are some risks and they include:

- **Infection**

There is a small risk of infection from the leech. The leech has bacteria in its gut which assists in the digestion of blood. Your medical team may decide to give you an antibiotic to prevent an infection from the leech. Please tell your doctor if you have an allergy or sensitivity to any antibiotics.

- **Bleeding**

The area where the leech was placed may continue to ooze blood after the leech has been removed. This will be monitored and blood test performed to make sure that you have not become anaemic.

## Are there alternatives to leech therapy?

The leech therapy may prevent any further operations if your flap, fingers or toes have a poor blood flow.

If nothing is done to improve blood flow, your blood may clot which will prevent blood flow to e.g. the flap, toes or fingers.

This may lead to death of skin and tissue which will have to be removed with surgery.

## Consent

Before you have the leech therapy the doctor and/or nurse will explain the procedure to you and you can ask them any questions or concerns that you or your family/carer may have.

Only when you are ready are you asked to sign the consent form.

By signing the form you are saying that you understand the procedure, what the side effects may be and you are happy for the treatment to take place and what it involves.

You can withdraw your consent at any time that you wish.

## What happens next?

Once you are happy for the procedure to proceed you will be asked to minimise the number of caffeine containing drinks such as tea, coffee, cola.

You will also be asked to avoid or reduce the use of nicotine products during your hospital stay - use of cigarettes or nicotine patches.

This is because caffeine and nicotine reduce blood flow and may affect the outcome of your treatment.