

INTRODUCTION TO  
**MEDICINAL  
LEECH  
THERAPY**

General  
information  
for the patients

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**re-balance.**  
LEECH THERAPY



# BRIEF HISTORY OF Leech therapy

**Hirudotherapy** (Medicinal Leeches Therapy) is a scientifically proven treatment using medicinal leeches. *Hirudo medicinalis*, *Hirudo Verbana* or *Hirudo Orientalis* have been used to treat patients for centuries. In the past, leeches have proved to be an effective treatment for a number of conditions including battle wound treatment. Currently, leeches may be used to assist in the treatment of abscesses, arthritis, glaucoma, myasthenia gravis, thrombosis and some venous disorders. Medical leeches may also be used in plastic surgery and some blood circulatory problems. The name of hirudotherapy comes from the word „hirudo”, which means „leech”. During feeding, leeches secrete a complex mixture of different biologically and pharmacologically active substances into the wound.



## LEECHES ENZYMES

**Hirudin** is the prominent constituent of leech saliva. It is sometimes used to describe all the active constituents in the leech saliva. The compounds that can be found in leech's saliva – commonly known as „hirudosubstances” – are called **Salivary Glands Secretion (SGS)**. SGS contains more than 120 – 140 bioactive substances, some of them are still being examined. The knowledge of how do they work and what are the health profits is the thing that gives us new therapeutic opportunities. Some of the Salivary Glands Secretion (SGS): Analgesic compounds – are still being examined. They kill the pain in the area of leech bite. Compounds with vasodilator properties - Hyaluronidase: prevents infection and improves the absorption. An enzyme that splits hyaluronic acid, lowers its viscosity and increases the permeability of connective tissue and so the absorption of fluids. Hirudin – a potent anticoagulant that prevents blood from clotting by binding to thrombin. Antibiotic substances – prevent infections.



# INDICATIONS

## for leech therapy

### **Cardiovascular diseases:**

- Ischaemic heart disease, Myocarditis, Pre / post heart attack condition
- Hypertension
- Migraine
- Varicose veins (lower extremities)
- Thrombophlebitis
- Ulceration
- Da Costa's syndrome
- Atherosclerosis

### **Neurological disorders:**

- Hypertensive encephalopathy
- Paresis
- Peripheral nerve re-innervation disorders
- Concussion symptoms
- Parkinson's disease and Alzheimer's disease
- Neuralgias
- Cerebral palsy

### **Gynaecological diseases:**

- Pelvic inflammatory disease
- Polycystic ovarian syndrome
- Infertility
- Uterine fibroid
- Endometrial adenoma
- Painful menstruation
- Mastitis
- Menopausal symptoms
- Vaginitis and endometritis

### **Odontic diseases:**

- Gingivitis and Odontitis
- Odontical haematomas
- Sialoadenitis

### **Musculoskeletal (MSK):**

- Rheumatoid arthritis (RA)
- Fractures, sprains, dislocations
- Rupture of muscles and tendons
- Bruises and hematomas
- Degeneration of joints and bones
- Tendinopathies
- Contractures
- Joint inflammation
- Post-surgery recovery
- Sciatica & back pain

### **Urological diseases:**

- Nephrogenic hypertension
- Cystitis
- Prostate gland adenoma
- Chronic renal failure
- Erectile dysfunction
- Respiratory diseases:
- Asthma
- Bronchitis
- Emphysema
- Pulmonary thrombosis

### **Otolaryngological diseases:**

- Labyrinthitis and vestibular neuritis
- Otitis
- Sinusitis
- Ophthalmology:
- Glaucoma
- Eye haematoma
- Conjunctivitis

### **Dermatological diseases:**

- Varicella (chickenpox)
- Herpes zoster
- Psoriasis
- Collagen disease
- Dermatitis
- Skin allergy
- Subcutaneous haematoma
- Scars (but not keloids)

### **Surgery:**

- Amputations and re-plantations
- Haematomas and edemas
- Post-operative thrombosis
- Subcutaneous tissue infection
- Phlebitis

### **Gastrointestinal diseases:**

- Gastritis and gastric erosions
- Duodenitis
- Pancreatitis
- Hepatitis and Cholecystitis
- Colitis
- Gastric and duodenal ulcers
- Haemorrhoids

## CONTRAINDICATIONS

\*In medicine, a CONTRAINDICATION is a condition or factor that serves as a reason to withhold a certain medical treatment due to the harm that it would cause the patient. A contraindication is the opposite of an indication, which is a reason to use a certain treatment.

**This is a brief list of conditions. Please contact the therapist for further advice. A list of commonly established contraindications for Hirudotherapy (P. Flecken, A. Michalsen):**

- Haemophilia and anticoagulants (acenocoumarol, marcumar, warfarin, heparin, and heparinoids)
  - Anemia
  - Upper gastrointestinal tract post - haemorrhage condition
  - Severe infection
  - Severe internal diseases, immunosuppression and immune system conditions such as HIV, AIDS, Cancer, etc.
  - Severe allergy
  - Cold & flu
  - Pregnancy
  - Wound healing complications
  - Children and unconscious patients
  - Mental impairment
  - Keloids
  - Bleeding disorder
  - Deep vein thrombosis (DVT)
  - Diabetic foot and tissue necrosis
  - Dermatomycoses & skin malignancies (cancer)
  - Skin tissue loss, arterial ulceration, decubitus
  - Autoimmunological pemphigus
- Also, contraindications for hirudotherapy are:
- Diets such as detox diet, juice diet, etc. (diet must be completed)
  - Recent vaccinations
  - Medication such as aspirin, ginkgo biloba, viagra, ibuprofen; treatment is possible 5 days after.

"...Sometimes the effects of such therapy are shocking. Lower cholesterol, stabilised blood pressure, reduced migraine headache pain and tinnitus are just some examples..."

Dr. Maciej Paruzel,  
surgeon and father  
of modern MLT.

## LEECHES IN SPORT

Example treatment for Achilles tendinopathy: Two sessions of 6 leeches and 10 days later return to training.

Medicinal leeches are small, live medical laboratories and an increasing number of doctors and physiotherapists are achieving excellent and rapid therapeutic results using them in their practices. The saliva of medicinal leeches is a unique mixture of multiple ingredients, making it a highly effective tool in the treatment of sports injuries.

### Leeches enzymes improve:

- blood circulation and innervation of damaged areas,
- regeneration of damaged soft tissues,
- swelling,
- stimulates rapid bone fusion and tendon regeneration.

### MLT is effective in:

- acute or chronic Achilles tendinitis,
- tennis & golfer elbow,
- frozen shoulder,
- fractures,
- sprains, dislocations,
- rupture of muscles and tendons,
- bruises and hematomas, degenerative diseases.





The safety of our clients is most important to us. Therefore, we require closer cooperation between the therapist and patient

## IMPORTANT INFORMATION

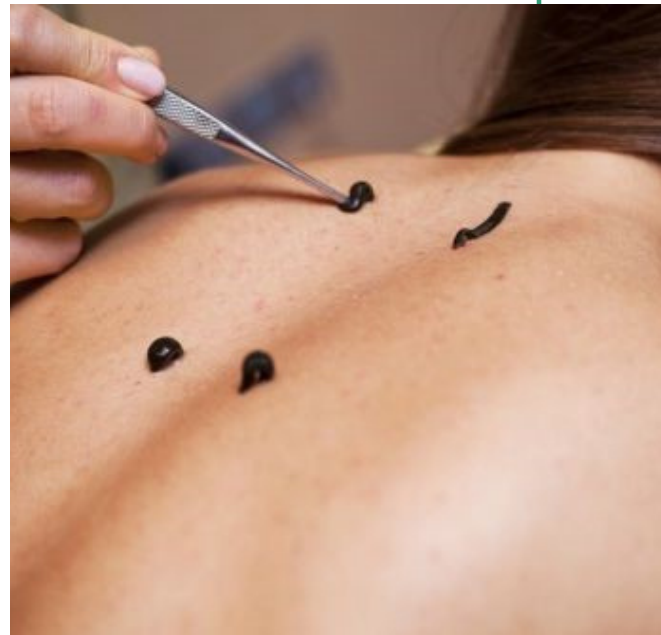
### IMPORTANT INFORMATION and ADVICE before leech treatment:

- Client must inform therapist about of any taken medication and present conditions.
- Physical training such as weight lifting, running, swimming after treatment is FORBIDDEN for 1-2 days after treatment.
- Prior to your first leech treatment, the patient MUST HAVE YOUR BLOOD TEST DONE and bring in a copy of the results.
- Doppler scan MUST BE DONE before treatment for Varicose Veins.
- Please remember that we DO NOT PERFORM Hirudotherapy simultaneously with other treatments, such as osteopathy, chemotherapy, etc. at least 1-2 days after and before the treatment.
- The client must follow the therapist's instructions to avoid undesirable side effects



### FAQ

- Does it hurt?
- What are the risks?
- Is this form of treatment effective?



#### **What are the risks of Medicinal Leech Therapy?**

##### **During the procedure:**

An allergic reaction may occur, including anaphylactic shock.

##### **After treatment:**

A small scar may persist after a leech bite. Swelling, redness, and itching at the bite site are common local reactions. Rarely, a generalized reaction may occur with symptoms such as lymphadenopathy, fever, weakness, and drowsiness. These symptoms indicate the effectiveness of therapy and should not discourage continuing treatment. Usually, they resolve within 24–48 hours. To reduce local symptoms, anti-edema gels such as Fenistil may be applied. For general symptoms, anti-allergic medications can be used. Occasional infections with *Aeromonas hydrophila* may occur during hirudotherapy, causing skin changes and high fever, requiring immediate medical attention and antibiotics. More commonly, infections may result from poor post-treatment hygiene and not following aftercare instructions.

##### **Does it hurt?**

Not really – but some people feel some pinching, itching sensation for the first 1–5 minutes.

##### **How long does a treatment take?**

Treatment time is variable, but generally takes between 60–90 minutes.

##### **How long will I bleed?**

Generally, it is slowly bleeding last 4-12 hours.

##### **Are the leeches used only one? And are they safe?**

Yes. Our medicinal leeches are raised in a controlled environment at a biological laboratory, either BIO-GEN or Biopharm Leeches, and are maintained under sterile conditions. This ensures that our leeches are completely safe for medical use.

##### **How many treatments should I have?**

You may experience improvement after 1-2 hirudotherapy sessions, with a maximum of 5 to 7 treatments at intervals of 4-7 days, followed by a 3-month break. The effectiveness of the treatment depends on the severity of the condition, the patient's overall health, and the type of ailment being treated. Maintaining a high concentration of leech substances in the bloodstream is crucial for optimal results.

##### **What determines the leech treatment effective?**

Results of hirudotherapy are not guaranteed and may vary depending on the severity of the condition, the patient's overall health, and the type of ailment being treated. The outcome of the treatment is influenced by factors such as the severity of lesions, the patient's compliance, the frequency of treatments, and adherence to aftercare instructions.



# LEECHES in medicine



<https://www.youtube.com/watch?v=VuukQ04yAMk>



<https://www.youtube.com/watch?v=owxXd9PJp2Y>



# HOW TO BOOK a leech treatment

## First step:

Read [Frequently Asked Questions](#) section.

## Second step:

Read [Contraindications List](#) section (MOST IMPORTANT!!!) and check if you don't suffer from any contraindicated conditions (CC).

## Third step:

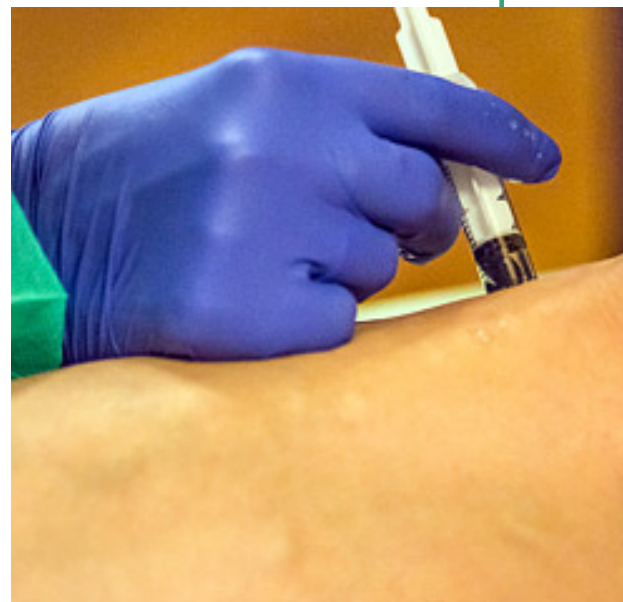
If you do not have any CC, contact our therapist for further interview and advice.

## The day before treatment:

- A day before planned treatment, abstains from alcohol, spicy food.
- On the treatment day, do not use any perfumes, deodorants, fragrance soap, leeches don't like unnatural smells.
- Keep your body warm – this will attract leech to 'bite'.
- Drink plenty of water.
- Stay positive, leeches will not 'bite' a stressed person.

## After treatment (aftercare):

- You may feel tired or sleepy.
- Drink plenty of water.
- Avoid strenuous physical activity such as gym, swimming, running, etc.
- Do not remove dressing till next day.
- The wound can itch for a few days - do not scratch it can cause infection (simply tap the area surrounded the wound a few times, this will release itching sensation).
- Always keep your wound covered and clean (apply sterile dressing).
- Abstain from any other form of therapy such as massage, osteopathy, acupuncture, etc. for 4 days.



## AFTERCARE

### What to do before and after hirudotherapy



#### How to prepare for the treatment?

- One day before the planned treatment, do not drink alcohol and avoid spicy foods.
- On the day of the treatment, do not apply any creams to the treatment area and do not use perfumed gels, as leeches do not like foreign/unnatural smells.
- Make sure your body is warm, as it will facilitate the leeches' feeding.
- Drink plenty of water.
- During the treatment, particularly in the first 5–10 minutes, you may feel moderate pain, itching, or burning, which will subside during the procedure.
- Clarify any doubts with the therapist who is performing the treatment.

#### After the treatment:

- Redness, swelling, burning, and itching around the wound may occur after the treatment, which will subside after a few days. To alleviate this condition, use a cream that prevents itching, such as Fenistil gel, arnica cream, aloe vera gel.
- In case of enlarged lymph nodes (which will disappear spontaneously after a few days), take an anti-inflammatory drug, such as Naproxen (tablets).
- The patient may feel drowsiness or weakness after the treatment.
- Avoid heavy work and limit mobility after the therapy.
- Do not remove dressings until the next day.
- Use Octenisept spray or disposable gauze to disinfect the wounds.
- In case of an allergic reaction after the treatment, take calcium, anti-histamine medication.
- Do not scratch the wounds or touch them as it may cause infection!
- In case of prolonged bleeding, contact your therapist.



Contact us  
If you have any  
questions or  
concerns about  
leech therapy,  
please talk to the  
therapist  
+44 752 611 6056.

## CONTACT

Write an email or  
simply call our  
therapist for further  
advice.

### Please visit

#### Our leech therapy gallery:

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