VACUSPORT®
New perspectives for regeneration
The VACUSPORT®-device is based on medical and technical requirements of manned space missions taking place in zero gravity. This leads to orthostatic problems for the astronauts.

The solution was developed in the sixties at the Institute for Aerospace Medicine of the German Aerospace Association in Cologne.

The result was the LBNPD (Lower Body Negative Pressure Device).
Patented and made in Germany:

The VACUSPORT® and its functional principle are patented and registered as a medical product according to EU guidelines.

As a product 'made in Germany', it offers safe treatments, long durations and visible and sensible effects.
The IVT-Principle: alternating pressure levels

- Negative pressure: sucking
- Positive pressure: pushing

- Capillardilation
- Capillarisation
- Improvement of blood circulation in the periphery and musculature
- Promotion of venous back flow
- Improved lymphatic flow
Anatomical IVT-effects:

- **Capillardilation:** Negative pressure → dilation of the vessels in the periphery (arterial, venous, lymphatic).

- **Capillar compression:** Rhythmic application of negative pressure and alternating normal pressure → „pump“ effect.

- **Capillarisation / vascular training:** Vascular training effect through collateral spreading → improved blood & oxygen supply for tissue and muscles.

Regarding the arterial flow, this leads to an increased stream of fresh blood in the periphery. Regarding the veins and the lymph system the dilation provides that the vessels get plasma and fill up = „flow“ is increased.
Summary of the IVT-effects:

- Passive vascular training
- Reduces oedema, promotes wound healing
- Distinct enhancement of peripheral blood flow
- Pain relieve
- Increases (respectively conserves) capillarization
- Significant acceleration of regeneration and rehabilitation
- Lymph drainage
This leads to:

- Decreased liability to sports injuries
- Improved and more intensive training
- Better performance
- Positive results (e.g. in matches)

SUCCESS!
Indications:

- Postoperative / posttraumatic oedema
- Characteristical athletic injuries
- Distorsions
- Ligament lesions
- Rupture of muscle fibres
- Plegia
Contraindications:

Due to the bright experience and studies e.g. in aerospace medicine and vascular medicine the Intermittent Vacuum Therapy is a save therapy.

Not to be given in case of

- Recent phlebothrombosis (< 8 weeks) / thrombophlebitis
- Infected wounds in treatment area
- Pregnancy
- Articulate hernia

(Schink, S. 2007)
References:

- Icehokey Club Ak-Bars, Russia (multiple continental league champion)

- Icehokey Club HK Metallurg Magnitorosk, Russia (multiple Russian champions)

- Pabellón Joseph Blatter, Pachuca, Mexico (C.F. Pachuca – multiple winner of Mexican Championship & winner of Concacaf Champions League)

- FC Barcelona, Spain (multiple Spanish & European Champion)
Device also recognized in...

- ... Fitness as VACUFIT®
- ...Cosmetics as VACUSTYLER®
- ...Medicine as VACUMED® (medical product)