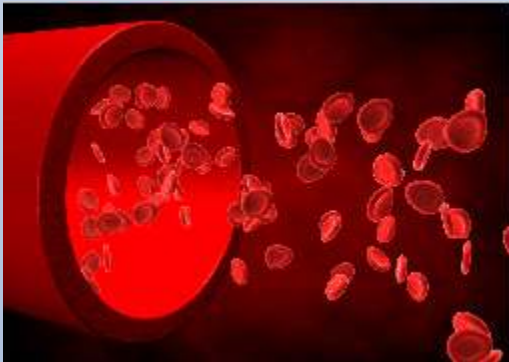


PBK Therapy from PBK International



A new treatment of vascular & medical diseases, complete healing of orthopaedic injuries & pain both chronic & acute.



PBK Therapy

Various electro-therapies have been used for over 100 years to help relieve pain and stimulate tissue repair. Now, a major leap forward has been made with a revolutionary, unique treatment available for the first time with the introduction of the PBK System.

PBK International Therapy® is a new technique designed to treat:

- Chronic vascular diseases and pathologies
- A variety of previously untreatable medical conditions
- Orthopaedic diseases & Sport Injuries
- Pain, (healing of both acute and chronic pain)
- Age, surgery or environmental diseases and injuries

It utilises the body's own physiological systems to instigate a focused and an accelerated repair mechanism based on the activation of new micro-circulation in the affected areas. Typically, after only four to five repeat sessions patients experience exceptional healing of pain, increased joint mobility and increased strength.

History

- 20+ years' R&D in Italy
- CE Marked & sold in Italy since 1997 (150 units sold with hundreds of thousands of people being treated successfully in the 10 years of sales in Italy).
- 10 years' Bio logical & clinical studies in Italy (namely In Vivo study effects of PBK Therapy on the Release of Vascular Endothelial Growth Factor VEGF).
- 24 months' clinical research in the UK, Germany & France.
- Being Exported from Italy since May 2006.
- Further successful studies undertaken in Italy, France, Spain, Germany, Mexico, Turkey, Russia, Australia, UK, Lithuania, USA, Saudi Arabia and Holland in the last 12 months.

How does it work?

The PBK System uses software controlled electronic impulses to stimulate various processes within damaged tissue including (neo) angiogenesis. These rapidly changing negative volt impulses have a variety of durations and powers in order to specifically instigate or accelerate the natural tissue repair mechanisms.

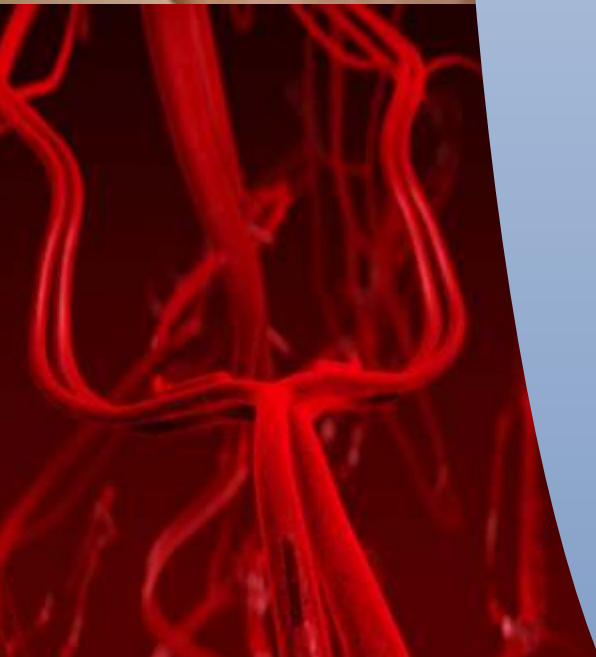
These impulses are applied through electrodes which are painless yet exceptionally effective and are so short-lived that virtually no current is generated. Hence the PBK-2C does not operate as interferential or TENS-type systems - it is truly unique.

Specifically, PBK System stimulates the natural production of endogenous Vascular Endothelial Growth Factor (VEGF) within blood vessels. The consequence of this is an exceptional increase in local blood flow/micro-circulation in the treatment area. The impulses also stimulates the release of Nitric Oxide and prostacyclin which also enhances this effect as well as reduces inflammations and pain.

In Brief

The impulses simulate an injury in the area targeted by generating an alarm status through the local release of TNF α & IL-1.

The Body then reacts to the / injury / alarm status by means of the local release of VEGF & increase of NO and initiates the body's own repair mechanism in the targeted area.



How VEGF Is Stimulated and Accelerates Healing

The increase in VEGF has a number of effects from within the blood vessels.

- Firstly it causes the vessels to dilate, or open up. This allows more blood flow which brings in more oxygen and nutrients.
- Secondly, it stimulates the release of Nitric Oxide and Prostacyclin PG12 – these are natural anti-inflammatories which act immediately on surrounding tissue. This results in a rapid reduction of pain in those tissues.
- Thirdly, the VEGF stimulates the growth of new blood vessels in that region of the body. This may take a few days to start but the process begins as soon as the local VEGF is released.

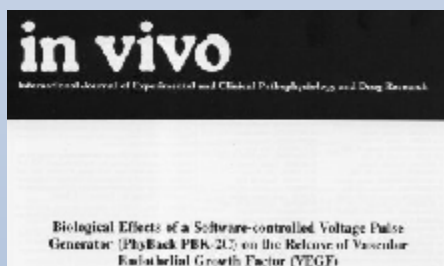
Biological Study Published in “In Vivo” (19:949-958 (2005))

Biological Effects of Software-controlled Voltage Pulse Generator on the Release of Vascular Endothelial Growth Factor (VEGF).

Overall Benefits

Many patients have not only reported a reduction or cessation of pain, but they have also indicated improvements in lifestyle, improved sleeping patterns and a general improvement in their overall well-being - both physically and mentally.

Increased mobility and function typically follow after a small number of sessions with the PBK System. No side effects have been reported throughout the 10 years that the mechanism has been used with almost 95% success rate achieved in most patients.



Safety

Clinical trials over the last 20 years have revealed the "best" set of parameters for particular clinical conditions. These parameters are programmed into the system to ensure maximum efficacy and repeated reliability in achieving the optimum clinical results. This means that once an operator has been fully trained in the use of the system, they merely need to select the appropriate program for any condition presented. The software will then ensure that the most beneficial set of parameters are applied to the patient for that condition.

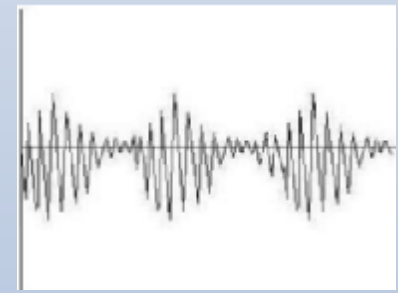
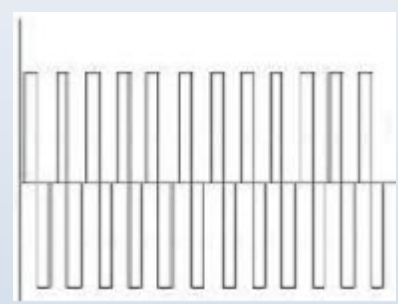
In addition, safety devices built into the system ensure that no possible harmful voltages or currents can ever be delivered to the patient. To this end the system complies with the European Medical Directive MD 93/42 as a Class IIa device. It also complies with IEC 947-1 : 1988 and CE 0476, N.MED 24010.





Difference between PBK Therapy and standard electrotherapy

- Many others devices use galvanic or faradic currents to achieve produce very simple waveforms.
- They are typically square waves which switch the voltage ON then OFF, in a simple manner.
- Therefore the standard electro-therapy systems are good for relaxing muscle and short term pain control. However, they merely remove the symptoms of pain, not the cause.
- The PBK uses neither of the galvanic or faradic currents.
- In fact, the PBK does not use current at all. It uses volt impulses which are extremely short.
- Typically billionths of a second.
- The PBK system produces a much more complex waveform which has taken 20 years of clinical and laboratory research to determine. These alter the voltage, frequency, pulse widths and timing of the waveforms.
- The research has shown that the timing and the power of the waveforms are very important in stimulating the proper responses in the tissues.
- Its very short electrical impulse & peaks (nanoseconds) stimulates a range of physiological reactions at both the cellular and tissue levels to produce the alarm and the release of the VEGF & NO.



Summary

Standard Electro-therapy:

- Relaxes muscle
- Removes pain for a short time

PBK Therapy:

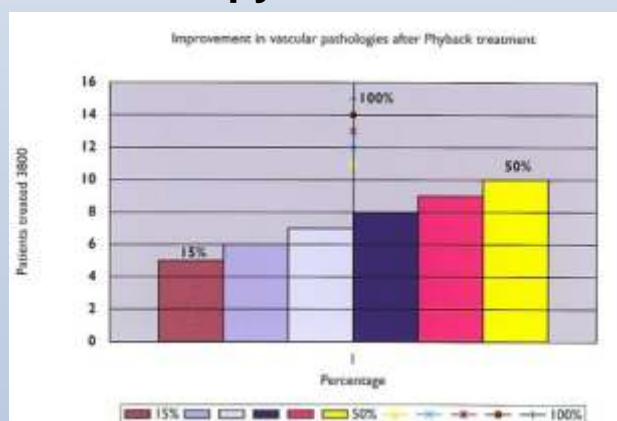
- Relaxes muscle
- Stimulates VEGF - Dilates vessels – more blood flow
- Grows new vessels
- Stimulates anti-inflammatories which reduces pain immediately
- Attacks the cause of the pain, not just the symptoms
- Removes pain for a long time
- Improves muscle strength, mobility and flexibility

Vascular and Wound Healing

PBK Therapy has been clinically proven to accelerate healing and increase levels of VEGF. PBK Therapy is effective in the treatment of the following:

- Diabetic foot
- Vascular disease
- Obliterative vasculopathy
- Pathology from chronic venous insufficiency
- Eczema & Acne
- Peripheral Vasculopathy
- Eye treatments (Cataracts, Macular Degeneration & Retinitis Pigmentosa)

PBK Therapy Clinical Results



Clinical Studies:

2 Studies of PBK for treatment of Therapy Diabetic Foot
Prof Fermin Martinez De Jesus MD

(World Congress speaker on using multiple modalities to heal complex wound)

Treatment of articular, vascular and neurological pathologies -
More than 500 patients

Prof Maurizio Pietrogrande

Lower limb venostatic ulcers

Dott. Pier Marco Pavanello

Post-surgical wound healing Treatment of Lower Limb Ulcers
Prof. Stefano Merigliano

References

- Hiperox Diabetic and Wound Healing Clinic, Turkey
- San Elian Clinic for Diabetic Foot in Veracruz, Mexico
- Athens University Hospital
- Madrid University Hospital



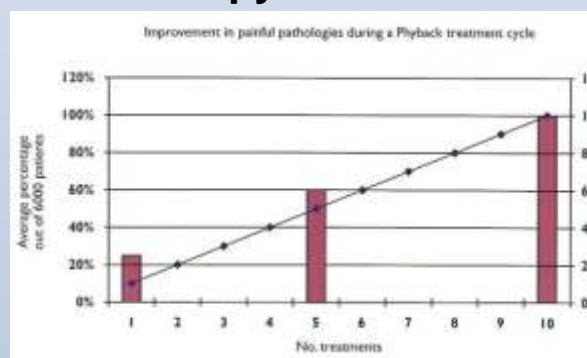


Healing of Pain, Orthopaedic and Sport Injuries

PBK Therapy can treat acute and chronic pain and injuries throughout the body such as:

Back and shoulder pain, e.g. Capsulitis (frozen shoulder),
 Medial Epicondylitis (Golfer's Elbow),
 Lateral Epicondylitis (Tennis Elbow),
 Fibrositis, Repetitive strain injury,
 Sprains, Arthritis,
 Tendonitis, Spondylitis,
 Achilles tendonitis, Sciatica,
 Bursitis, Metatarsalgia,
 Carpal Tunnel Syndrome, Plantar Fasciitis,
 Arthritic and locked fingers, Neurological rehabilitation.

PBK Therapy Clinical Results



Clinical Studies

Use of PBK Therapy in Failed Back Surgery Syndrome
 G.Varrassi, University of L'Aquila

Treatment of lumbar-sciatica
 G.Varrassi, University of L'Aquila

PBK therapy in the treatment of Fibermyalgia
 Prof. Giustino Varrassi, University of L'Aquila, President of the AISD Congress in Rome (May 8th-10th 2008).

Giustino Varrassi is a Professor and Chairman of the Department of Anaesthesiology at the University of L'Aquila Medical School Italy and President of the International Association for the study of pain, and the European Society of Obstetric Anaesthesia.

References:

- Slovenia National Football Team
- Northampton Saints Rugby Club
- Carlisle United FC
- Sunderland Association FC
- East Kilbride Thistle Juniors
- Watford Football Club
- Croatia Handball Team
- Lithuania Basketball Team
- Strasbourg Institute of Sport

Medical Pathologies

Irritable Bowel Syndrome,
Incontinence,
Prostate pathologies,
Constipation,
Erectile Deficit,
Kidney Disfunction

Otorhino,
Fecal Incontinence,
Hemorrhoids,
Renal failure,
Urinary

Clinical Studies

Treatment of Irritable Bowel Syndrome Giancarlo Calleti, MD
Erectile Deficit Vilnius Polyclinic, Lithuania

Software controlled tension impulses generator PBK-2C: clinical experience, 257 cases were reported - The speaker was Dr Martina Gubernari the AISD Congress in Rome (May 8th-10th 2008). Tor Vergata University of Rome, – Pain Therapy Centre (Study group of Prof. Antonio Gatti)

Case report: patient with neuropathic pain from vascular ulcer treated with PBK-2C. The speaker was Dr Giuseppe Longo - AISD Congress in Rome (May 8th-10th 2008)

General PBK Therapy induces three important tissue responses simultaneously:

- De-contraction of muscle tissues (Muscle Relaxation)
- Anti-inflammatory process (reduces pain almost immediately)
- Activation or new micro-circulation enhancing local blood flow

Current methodologies stimulate one of these typically, but not all three together. There is no other system in the world which can reproduce these sorts of results.

Protocols

- Typically a condition may require 5 to 10 repeat sessions initially
- 24 to 48 hour intervals (min. 2 hrs)
- Results can usually be seen and/or felt within 3 to 5 days
- Average treatment duration approximately 20 minutes

Advantages of PBK Therapy

- Non-Invasive treatment
- Extremely Safe
- Accelerated healing responses
- Painless
- Wide range of applications
- Quick and easy to use
- Patients feel the effects quickly
- Further sessions usually sought by the patients themselves

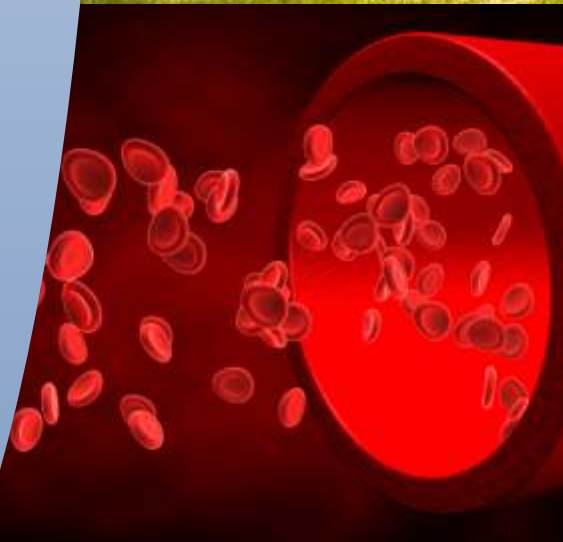
Dr Giuseppe Longo. First Graduate on work with PBK therapy applied to pain medicine at the AISD Congress in Rome (May 8th-10th 2008)



BEFORE



AFTER



PLEASE REMEMBER PBK THERAPY DOES ONE THING ONLY:

It stimulates the body's own repair mechanism to commence the healing process in the area where it has stopped doing so (the area targeted) with 90% success

Or it accelerates an existing healing process by at least 200%



For more information on the physiological and technical aspects of the PBK system please ask for our technical brochure or visit our website at www.pbkinternational.com.

PBK International Ltd reserves the right to modify the specifications of the PBK System at any time without reference.

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