

PHYSIO-MASTER®

Proprioception & Vascular Cushion

Distributed by:



*Providing an aid to balance recovery
and improve blood circulation*

Manufactured by:



The Kace Building, Victoria Passage, Wolverhampton,
West Midlands WV1 4LG, United Kingdom
Company Reg No: 04383577 Vat No: 836 8531 02
www.mdti.co.uk email: info@mdti.co.uk
Telephone: +44 (0) 1902 778380 Facsimile: +44 (0) 1902 421360

PHYSIO-MASTER®



product



INVESTOR IN PEOPLE



CONTENTS

-  *Bibliograph*
-  *How does it work ?*
-  *Benefits of the PHYSIO-MASTER®*
-  *What the Specialists Say ?*
-  *How to inflate your PHYSIO-MASTER® ?*
-  *How to deflate your PHYSIO-MASTER® ?*
-  *PROPRIOCEPTION— INSTRUCTIONS FOR USE*
-  *IMPROVING VASCULAR CIRCULATION — INSTRUCTIONS FOR USE*
-  *How to care for your PHYSIO-MASTER® ?*

DVT is a serious condition where blood clots develop in the deep veins of the legs. It must be distinguished from blood clots in superficial varicose veins in the legs, called Phlebitis, which is much less serious.

How to care for your PHYSIO-MASTER® ?

Warning: Ensure the valve is closed before washing.
Keep away from fires.

Hand Clean:

Wipe down using mild soap and water or sterile wipe

Machine Wash:



Fibre Content:

Outer: Nylon: 35%, PVC: 65%
Inner: Polyurethane Foam 100%

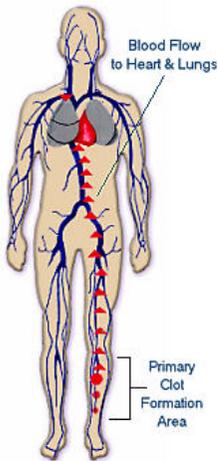
The **PHYSIO-MASTER®** cushion, developed from within the NHS (the National Health Service) is an unique self inflating device that enables Neurological rehabilitation and improves Vascular conditions in the lower limbs.

? What the Specialists Say ?

"The PHYSIO-MASTER®, because of its portability, size, easily cleaned surface and self inflating and deflating properties, offers multiple use to clinicians and lay persons alike."

The PHYSIO-MASTER®, when used in a kneeling or standing position aids balance reactions (proprioception) following lower limb surgery, stroke or other neurological rehabilitation or balance problems in the ear (vestibular rehabilitation).

? What the Specialists Say ?



Clinical tests have shown that exercises with PHYSIO-MASTER® can prevent the occurrence of blood clots in the deep veins of legs, as evidenced by Prof.Dr.hab.med. Arkadiusz Jawien, National Consultant in Angiology Poland.

The device replicates the action of walking when sitting down and thus speeds up the circulation in the lower limb. Sitting for long periods can result in the pooling of blood in the lower limbs, swelling and reduction in blood flow, all of which are contributing factors for the formation of blood clots or DVT (Deep Vein Thrombosis).

More often than not sprains and strains have to do with balance, **Proprioception** to be exact.

? How to inflate your PHYSIO-MASTER® ?



Open the valve by turning anti-clockwise in order to inflate the foam chambers.

Once all chambers are fully inflated, close the valve by turning it clockwise.

? How to deflate your PHYSIO-MASTER® ?

To deflate your PHYSIO-MASTER®, open the valve by turning anti-clockwise and squeeze air out. Once deflated, turn valve clockwise to prevent the device from re-inflating until you require to use it next.

PROPRIOCEPTION is as important as the other senses for normal functioning. Proprioception is the process by which the body can vary muscle contraction in immediate response to incoming information.

PROPRIOCEPTION— INSTRUCTIONS FOR USE



Fig.1

1. Stand with both feet on the PHYSIO-MASTER® as shown in Fig1. as indicated by 'Foot Prints' on the device. Steady yourself if required by contact with a stable object e.g. the back of a chair.

2. Stand as still as possible with your weight equally distributed between all chambers.

3. Repeat step 2, this time with your eyes closed. Note fig.2

With practice you will be able to maintain this standing position for longer periods, thus speeding up your balance reactions.



Fig.2

The **PHYSIO-MASTER®** – a simple, self inflating cushion that replicates the action of walking so improving lower limb circulation and aiding balance reactions (proprioception).

- The PHYSIO-MASTER®, when used in a kneeling or standing position, aids balance reactions (proprioception) following lower limb surgery, stroke or other neurological rehabilitation or balance problems in the ear (vestibular rehabilitation).
- The PHYSIO-MASTER® can be folded in half and used as a lumbar support to the lower back when sitting to maintain the lumbar curve (lordosis).
- With the valve positioned to the side, the PHYSIO-MASTER® can be sat on to reduce pressure, stimulate the core trunk muscles, strengthen and increase flexibility in the back and stomach muscles, exercise the pelvic floor muscles and aid balance reactions.
- The PHYSIO-MASTER® has a self inflating valve with easy to clean surfaces and so it is quick and easy to use and an ideal enabler in infection control management.

The PHYSIO-MASTER® cushion enables exercise (**‘walking action’**) in a sitting position. This is possible due to its construction, which makes the air move between the four chambers under pressure, that requires some effort which stimulates the leg and foot muscles.

? *IMPROVING VASCULAR CIRCULATION — INSTRUCTIONS FOR USE*

Place the PHYSIO-MASTER® under the feet with the heels on two of the chambers and the balls of the feet on the other two chambers as per the imprint on the device. (If used in a standing position it may be advisable to steady yourself by contact with a secure object e.g. the back of chair).



Exercise One (exercises foot muscles)

- Press down on each chamber alternately, first with the toes of the right foot and the heel of left foot, followed by the toes of the left foot and heel of the right foot. The movement of air between the chambers under pressure requires effort and stimulates the foot and leg muscles into action.



Exercise Two (exercises leg muscles)

- Press on the chambers with the right foot, with left foot slightly raised, followed by pressing down with the left foot, with right foot slightly raised. Alternate this action. This helps to prevent the risk of formation of blood clots, swelling and general tiredness in the legs.

If seated when undertaking exercises press alternate foot down flat thus raising thighs off the seat of chair.

- James A. Ashton - Can proprioception really be improved by exercise? - Miller Knee Surgery, Sports Traumatology, Arthroscopy Volume 9 2001
- Refining rehabilitation with proprioception training expediting return to play The Physician & Sports medicine Volume 25 Number 10 October 1997
- Prevention of anterior cruciate ligament injuries in soccer, a prospective controlled study of proprioception injury—Sports traumatology, arthroscopy-Springer-Verlag 1996
- Economic evaluation of community based exercise programme to prevent falls—Journal of Epidemiol Community Health 2001
- Amanda Moseley (2007) - Efficacy of home based exercise Regimes for Limb Oedemas. A thesis submitted for Phd at Flinder University Adelaide South Australia

The **PHYSIO-MASTER®** – is a simple, self inflating cushion that replicates the action of walking, so improving lower limb circulation and aiding balance reactions (proprioception).

How does it work?

The **PHYSIO-MASTER®** is a cushion with four self inflating and inter-connected chambers. It replicates the act of walking when the feet are rocked forward and backwards on the **PHYSIO-MASTER®** by alternately flexing the foot up (the *dorsi flexion*) and downwards (the *plantar flexion*), so moving the air between the chambers through the small interconnecting constriction.



The pressure in the air filled chambers alternately stimulates the calf and anterior lower leg muscles while the inter-connector between the chambers is flattened by the longitudinal arch of the foot, by offering a resistance as when weight bearing while walking.

Benefits of the **PHYSIO-MASTER®**

- The **PHYSIO-MASTER®** promotes increased blood flow and venous return and so reduces the risk of blood clots or DVTs (Deep Vein Thrombosis).

PROPRIOCEPTION is as important as the other senses for normal functioning. Proprioception is the process by which the body can vary muscle contraction in immediate response to incoming information.

4. Repeat steps 1 through to 3, this time with the exercise done standing on one leg.



Fig.4

An alternative exercise for trunk control and as an aid to increasing mobility is to sit or kneel on the device, keeping shoulder girdle still and rocking backwards and forwards or side to side.



Fig.5



Fig.6

All of these exercises can be made harder by raising your arms over your head, thus raising your centre of gravity.

IMPORTANT: It is advisable to consult your doctor or other appropriate medical practitioner before attempting any of these exercises.