

Why do we, and with us already more than 100 physiotherapists in Belgium, prefer to use the Mastercare back-a-traction !

When we take a look at the essential points of therapeutically effective lumbar traction on this device, we find that, due to the moving backrest, with an inclination of 15°, the traction force is big enough to effect a structural change at the spinal segments, because the moving backrest eliminates friction. When we compare it to other inversion systems, a much bigger inclination would be necessary to effect the same traction force.

This 15° we work in, is a very comfortable position and can be safely used for nearly all patients.



As you know spinal traction is a time honored method for the treatment of nuclear disc protrusions, degenerative disc disease and joint dysfunction. Traction has the same effect on the intradiscal pressure as prolonged bed rest, but much more strongly. A few hours traction achieves as much or more then rest in bed for weeks. In addition, the patient remains ambulant, greatly preferred to rest in bed for some weeks, which is not only bad for moral and stability of the trunk but also increases the cost in lost working days and the payment of sickness benefit. Although it must be emphasized that spinal traction is only a part of the total management treatment regime. Therefore, this Mastercare system is unique as in 15° we can combine traction, mobilization and stabilization techniques on one single device so that it becomes very practical in a today's physiotherapy practice.

A lot of physiotherapists have rediscovered the benefits of traction on this device. At the moment several hospitals and more than 80 physiotherapists in Belgium are already using this device.



What's very important patients are able to relax in this position, and muscle tensions and pain will decrease quiet fast.

It's not the amount of force alone which determine the effectiveness of the traction treatment. Patients comfort is of utmost importance.

If patients are unable to relax during treatment, the treatment will probably be ineffective (think about the discomfort of a harness, which is often a limiting factor).

This 15° inclination position permits us to combine traction with other useful manual techniques, mobilizations and/or manipulations



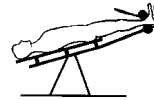


or other soft tissue techniques



So as for instance in most cases of nucl. Protrusion or prolaps where we can use the Mc Kenzie principles under traction (the extension exercises).





The moving backrest also permits us to do some more exercises to relieve pressure on the joints and realign the pelvis with a few simple stretching movements as to increase mobility.

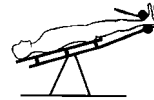
Of course we'll improve circulation and nutrition towards discs and joints.

When we're able to let the patient relax, sometimes move, separate or realign the segment in such a way as to relieve impingement. When we're able to increase mobility, a third and important step is to start as soon as possible with the stabilization of pelvis and lumbar segments. When working on the table we have the advantage of working in an unloaded, re-aligned position, so we can start in a very early stage with stabilization training to increase muscle-balance.

We also experienced that under traction when the global muscle system (the large and more superficial muscles of the trunk) are stretched (external oblique) (erector spinae) the inhibition towards the local muscles, including deep muscles such as TA and the lumbar MF that are attached to the lumbar vertebrae and sacrum and are capable of directly controlling the lumbar segment is far less than normal which implicates that it's much easier to activate these deeper muscles.

The active co contraction of these muscles is completed at a very low level of muscle activity and is forming a deep muscle corset or performing self-bracing which is very important to prevent relaps





It's this unique combination of traction, mobilization and stabilization in a very early stage that we use on the Mastercare back-a-traction and which has been proven to be very successful in the treatment of :

- nuclear disc protrusion;
- CLBP (chronic low back pain);
- Posterior dysfunction syndrome;
- Lumboglut. pain with prolonged restriction of SLR (straight leg raising);
- Nerve compressions as long as they are mechanical;
- Recurrence after laminectomy, arthrodesis;
- Primary posterolateral protrusions.

Conclusion : every condition where we intend to increase the intradiscal space, centripetal suctionforce within the disc, more space at the apophyseal joints and intervertebral foraminae.



Positioning

As for patient position, prone or supine, as both positions are possible on the table, it is our experience that prone position is a more comfortable position for most patients.

Prone position on the Mastercare back-a-traction is not comparable with prone position on a common massage table or bed; the construction of the table allows knees and hips to stay in a light flexion during traction. The use of support pillows allows us to flex the hips even more to facilitate lumbar traction by flattening the lumbar spine. Also when stepping into and out of the Mastercare back-a-traction, especially when there are disc problems involved, prone position shows to be a better position because we keep the neutral pelvic position, avoiding flexion of the lumbar spine when stepping out. Is it though for one or another reason impossible to put the patient on the stomach, then certainly use the knee-support for the initial treatments (the knee-support is to be adjusted individually).

Treatment

First make sure to adjust the right body-height. Pull the height and balance-adjustmentknob and slide the bar according to the guideline-markings provided. When we unlock one safetycatch, this will allow us as a therapist to make al adjustments from one side and to assist while inverting the table. During the first treatment the patient should get used to traction.

We bring the patient gently to the horizontal position and start with some breathing or relaxation exercises for optimal relaxation. As our organ of equilibrium is not used to this movement, the horizontal position won't be registrated correctly and the patient feels like inverted yet.

The support leg allows us to increase the inclination angle (and thus the traction) very slowly (from 0° to 15°) in case of severe muscle spasm. On the other hand the support leg is used to stabilize the table when using mobilizations and or manipulations or other soft tissue techniques.





Day 1 : We keep the patient for at least 5 minutes in the same position, except when the patient feels uncomfortable or is in pain.
5 minutes in horizontal position, positioned pain free if possible, correct breathing.
5 minutes in 5° inclination using the support leg, breathing within the pain limit.
3 minutes in horizontal position, making walking movements with the legs.
Then we increase the inclination angle progressively 5 minutes traction 10°, 3 minutes horizontal till we have our patient in 15° using some times manual techniques if necessary to relieve pain and to take muscle spasm away.



The average length of treatment, counting the non-continuous character of traction during first sessions is more or less 45 minutes.

Day 2 we built up traction progressively, same as day 1 and start mobilization exercises on the table. Breathing out, pushing heels backwards, also alternating right and left heel, depending on the condition treated sometimes only right or left.





Extension mobilizations 3 times 1 minute elbow support



3 minutes rest horizontal, 3 times 1 minute pushing up on straight arms.





Day 3 inverting immediately to 15°; repeating same exercises as day 2. We add dynamic extension exercises.



We start lumbar stabilization training (contraction of TA and lumbar multifidi).





Day 4 directly to 15° inversion, same exercises as day 3; raise the trunk with correct cocontraction of transversus and multifidi (2 X 10).



Day 5 till Day 10 : same as day 4 : stabilization exercises are enlarged to 3 X 10.