

IDD Therapy®

IDD or Intervertebral Differential Dynamics Therapy® was first drawn to my attention by the late osteopath, Simon Lichtenstein and his wife, Sally Lansdale, who is also an osteopath, when I bumped into them at a BOA conference in 2009.

Interested in the potential of the technology and looking for a solution to Sally's own unresolved back problems, they had just decided to invest in an IDD machine for their practice in Leominster, Herefordshire.

Knowing them to be respected, "hands on" osteopaths with over 30 years' experience - (they both qualified from the BSO in the early 80s) I was curious about their decision to invest a not inconsiderable sum in something that sounded rather like a rhythmic traction device and thought it might be helpful to other osteopaths to find out more.

So what is IDD Therapy®?

It belongs to a relatively new category of treatment for back problems known as "non-surgical spinal decompression" which, in very general terms, is a treatment delivered by a motorized machine, controlled by a computer, that applies a variable distraction/traction force to the spine

There are a number of different designs of spinal decompression systems and IDD Therapy® is one type of patented design - delivered by machines that operate to The North American Medical System Design from The North American Medical Corporation.

The current IDD® machines in use in the UK are the Accu-SPINA® or the slightly cheaper SDS Spina® which deliver identical treatment although each model has slightly different features.

This article looks solely at IDD®.

History

The IDD Therapy® model was first developed in the mid-nineties by a group of American doctors and engineers led by neurosurgeon Norman Shealy, MD, PhD, based on treatment principles gleaned from chiropractic, neurosurgery, orthopedics, osteopathy, physiatry.

It is now offered in a number of clinics internationally and is currently making inroads in the UK where there are six clinics, mainly osteopathic, offering treatment.

What conditions is it used for?

The manufacturers advise that IDD may be used in the treatment of herniated or bulging discs, degenerative disc disease, posterior facet syndrome, sciatica and acute or chronic back pain.

Patients tend to be those that haven't responded to conservative manual treatments and may be considering invasive procedures like surgery.

How does it work?

The patient lies supine on the treatment table with knees flexed to flatten the lordotic curve. The patient is connected to the table by a thoracic harness and an ergonomic pelvic

harness connects the patient to a motorized decompression belt.

The IDD Therapy treatment protocols include angles at which the distraction force is to be applied in order to focus the pulling force at targeted spinal levels. By progressively increasing the angle of distraction, the point of application of the pulling force moves along the spine to the desired level. Once set, a series of cyclic distraction and oscillatory forces are applied for 25 minutes to open the disc space and mobilise the joint in a longitudinal plain.

What is the difference between spinal decompression and traction?

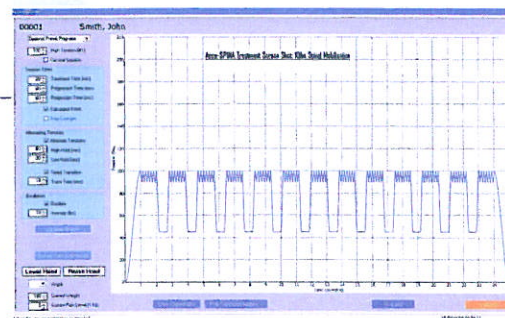
According to Stephen Small, Director of Steadfast Clinics, which supplies IDD machines and trains clinicians in the UK and Europe, a common reaction when people first hear of spinal decompression is to say it's traction but he says there are many differences:

"The origins of IDD spinal decompression lie partly in addressing the failings of traditional traction and understanding the objectives of spinal (disc) treatments in the context of the limitations of what can be achieved with the hands alone.

Unlike traction where linear pulling forces were applied in an unprecise general manner, with IDD spinal decompression, the pulling forces are applied at precisely measured angles which has been shown to open the disc space by between 5mm-7mm at specific spinal segments.⁽⁵⁾

The next aspect is the manner and duration in which the force is applied. With traditional traction, different pulling forces were used in a non-systematic manner and a danger was that spasm would cause an actual increase in intradiscal pressure. With spinal decompression, the pulling forces are applied using a natural sinusoidal waveform. This means that it is possible to apply higher pulling forces (up to half body weight plus 10-15lbs) and maintain comfort.

The pulling forces are applied in a series of cycles with a high tension and low tension. At the point of maximum distraction, IDD spinal decompression has a patent-pending oscillation



component which is applied in a 'longitudinal' direction along the spine, rather than anterior-posterior. As with other joint distraction-mobilisation techniques, the same is applied to the spine. Importantly rather than a ten minute treatment, patients have 25 minutes during which time the soft tissues are under constant cyclic tension and there are 13 minutes when the joint is fully distracted. Whilst this is possible to some extent manually, to achieve such a distraction and longitudinal mobilisation with controlled force at precise angles for this amount of time is simply not possible manually. These are the principles which resonate with osteopaths."

Treatment protocols?

Treatment can be intensive - the original IDD protocols are based on a course of 20 treatments over a period of 4 to 6 weeks but in some cases desired outcomes can be achieved for less. Heat and ice are used pre and post treatment and patient education and exercise are key components. Each treatment lasts for between 45 minutes and one hour and costs approximately £60 to £70 per session.

An MRI scan is required beforehand to help determine or confirm the level to be treated and to rule out any contraindications such as fractures, spondylolysis, severe canal stenosis, cauda equina, osteoporosis, metastasis etc as well as some severe annual strains.

Research?

Research results are mixed. The four most recent studies about IDD Therapy® are referenced at the end of this article for your own critical evaluation and include two randomized controlled trials which raise questions. Earlier papers can be accessed from Steadfast and via The North American Medical Corporation on www.namcorporation.com/studies

Practitioner views?

Simeon Asher BSc(Ost) BSO 1992, BPhil in CHS. University of Exeter (1995). Won the CAM award for outstanding practice in 2007.

He started using the Accu-SPINA[®] in 2009 and bought a second machine in 2011 and has treated about 65 patients with IDD[®]. He finds it particularly effective for disc bulges and prolapses especially in the cervical spine.

"I was first told about IDD by a 62 year old female patient who is a children's psychologist of great repute. She presented to me with three bulging discs at C4/5/6 in her neck, radiations into her arms, severe back pain and weakness in the hands. She also had chronic low back pain due to disk problems at L3/4/5. In the 20 years since it started she had tried everything; chiropractic, specialist physiotherapy, medication and pain clinics but nothing had cured her. By the time I saw her she was unable to sit for any length of time at a computer and she had reduced strength and power in her hands; even after five minutes sitting at a computer she was forced to lie down flat. She needed to make lengthy patient reports in the computer and she even took to building a special set-up so she could lie on her back in front of her laptop.

"Osteopathy seemed to help a little but she was desperate and in her desperation she read on the Internet about IDD therapy[®] that was only available in the USA. Feeling there was very little to lose she flew all the way to the USA and began a course with a chiropractor. The results were spectacular, her pain was 90% better and she started to live again. She sent all her friends and family to IDD[®] and she came back to see me demanding that I buy a machine!

"I distinctly remember the feel of her muscles before the IDD[®] - they were tight and knotty all the way from the top of her back to her neck. Her Splenius and Erector Spinae groups felt as if they were constantly switched on and struggling to maintain her postural loss of lordosis.

"When she returned I felt her muscles again; the change was dramatic, they no longer felt tight and knotted they were soft, healthy and yielding. Best of all she was pain-free, able to sit at the computer again and back to an almost normal life after being in pain for 20 years! In my 19 years as an osteopath I had never felt anything like it! So I bought a machine and have been working with IDD since 2009 and in the last two years have treated 65 patients. I would say more than 75% of all cases have shown moderate to dramatic improvement.

On the negative side, patients can sometimes be in more pain after the first 3-4 sessions. Some patients do not respond to IDD. It can be expensive if patients are self-paying. The machines cost a lot of money which as osteopaths we are not used to BUT talking to my dentist friends it is not even as much as a good dental chair!

Overall, my sense is that, combined with good osteopathic and rehab treatments the results of IDD have been better than good. It is good to be able to offer disc patients a genuine alternative and the technology fits nicely into an osteopathic - body self-healing model. I am still very impressed and excited by the technology."

Sally Lansdale, DO (BSO). Osteopath of 27 years. She has been a clinical tutor at the BSO and lectured in diagnosis and technique. She also has an interest in cranial work. She currently practices in Leominster.

The Accu-SPINA[®] was installed in Sally's practice in January 2010 and she has treated approximately 40 patients.

"We MRI scan every patient who has IDD Therapy[®] - patients mainly have degenerative disc disease, bulging, herniated or prolapsed discs.... They tend to be those very difficult patients who get better for a while but then get worse again and have really severe episodes.

"We had four like that when we first got the machine and we had fantastic results with three of them. One was a 62 year old ex-army officer who hadn't slept for three months with back pain and intractable pain in his calf muscle from a prolapsed disc. He wasn't getting much better with osteopathic treatment but had positive results within two treatments with IDD and is now back cycling and very fit again. It has been very good for us - to be able to help those very difficult patients who otherwise you would have had to turn away has been brilliant."

James Sneddon ND, DO is a second generation osteopath. His father was a naturopath and osteopath who established The Glasgow School of Natural Therapeutics where James qualified in naturopathy and osteopathy in 1972. He has worked from The Buckingham Clinic in Glasgow since then and joined the GOsC in 2002.

James was the first osteopath to use IDD Therapy[®] in Britain. He has worked with it for about four years mainly treating cases of prolapsed disc or degenerative disc disease both in the cervical and lumbar spine. James works within his multi-disciplinary clinic and assesses patients prior to them undergoing IDD Therapy.

"I of course consider the usual osteopathic issues such as facet joint implication and pelvic imbalances etc. and if appropriate will carry out osteopathic treatment before and/or during a course of IDD Therapy. The IDD itself is carried out by a qualified physiotherapist and it's not the easier cases of prolapsed disc that we find it so helpful, it is the cases that have not responded to a range of treatments and where surgery is the usual next step.

"I would hate not to have it as a weapon in my armory. It's a very important tool to me. I don't want to be sounding over the top about it but we have bought a second machine - I guess you don't buy a second one if you don't think the first one is doing its job! Patients enjoy it, generally they don't find it painful. It's an easing effect.... a lovely gentle pumping action and because its computer-driven it's a very gentle, even pull. I've only ever had one patient that found it painful. The downside is that in severe cases, it is at least a 6 to 8 week programme so it's not immediate in its actions. We follow up with a course of core stability using specialist Medx medical gym equipment to target the core."

David Brogan is a Chartered Physiotherapist who studied at Queens College in Glasgow (1984). He works at The Buckingham Clinic in Glasgow and now specializes in IDD Therapy. He works with IDD approximately 35 hours a week and he and his colleague Peter Krzeminski, also a Chartered Physiotherapist, have seen about 650 cases over the last 2 years.

David says patients tend to be those difficult ones who have either a confirmed prolapsed disc through an MRI or a highly suspected case based on clinical signs and most have had treatment with other modalities.

"We haven't tabulated the data but I would say that we have between a 70 and 80% success rate and by success I mean improvements in their pain score, decrease in pain killer usage and improvement in certain functional tests like a patient's ability to put on their socks, walking distance and ability to return to work. Overall between 70 and 80 per cent of patients will have about an 85% improvement in their symptoms.

"I would say, certainly for those patients who have a confirmed prolapsed disc, IDD Therapy[®] is a very positive and proactive treatment option that can be added into the equation. I think I would certainly miss it now if I didn't have it.

"It's not so much a single treatment more of a programme or an approach of which IDD[®] is a big part and it's really taught us how to manage the prolapsed disc much better. For example, when we embark on the treatment we have a nice clear plan with the patient - we spend a lot of time ensuring they fully understand what a disc prolapse is as there are a lot of misconceptions, and we try and give them their confidence back. It's an intensive programme - we see them every day for the first 10 days so we get to know the patients really well and we address one of their fears right from the start which is that they are actually afraid to move. We focus very much on setting out the end point which is that it's not just about getting pain under control but actually about restoring function and getting the patient back to doing what they want to do. I try to get them away from the concept of "I've got a bad back.... I've got this for life.... this is me!". We monitor each patient and adapt as we go along mixing in a core stability exercise program along the way.

"My overall view is that it is a very useful treatment for a clinic that sees a lot of discs disease; a very good safe treatment option for those difficult prolapsed discs that most clinics must be finding difficult to treat."

Cost?

The cost of an IDD[®] machine is in the region of £40,000 upwards and a clinic averaging 7 treatments a day has, according to Steadfast, the potential to generate over £100,000 a year in revenue. There are various lease arrangements and finance schemes available. For further information contact: Stephen Small at Steadfast Clinics Ltd Tel: +44 (0)1279 602030. www.steadfastclinics.co.uk

This article is for information only. It does not imply endorsement for IDD Therapy[®] by the BOA or the author. All the practitioners quoted declare no interest in the company which produce/distribute IDD machines apart from the fact that they own or work with the machines except in the case of Sally Lansdale, who is a UK and Europe trainer for Steadfast Clinics Ltd.

Theresa Devereux

Study References

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