

Backpod[®]

Lie back and treat yourself



USER GUIDE


Bodystance[®]

Designed and made in New Zealand



Introduction and how to use the Backpod®

- | | |
|----------|---|
| 1 | Introduction: Why you have neck or upper back pain - the iHunch |
| 3 | Instructions: How to use the Backpod |
| 6 | Care of your Backpod |
| 7 | Warnings and precautions |
-

Home care programme

- | | |
|-----------|------------------------------------|
| 9 | One simple muscle stretch |
| 10 | Two simple strengthening exercises |
| 12 | Posture |
| 13 | Massage - two simple techniques |
-

Note from Steve August, B.A., Dip. Physio

Thank you for buying the Backpod. The views and recommendations contained in this user guide are my own. They are those of a New Zealand manual physiotherapist with 30 years' experience. This amounts to over 40,000 patient treatments performed personally, plus innumerable courses, conferences, clinical discussions, reading, etc. Views on the strengths and limitations of other treatment and care approaches are fair comment from the viewpoint of a very experienced practitioner.

Why you have neck or upper back pain - the iHunch

Pain in the neck and upper back is an enormous and rapidly increasing problem. Here's how big: of 740 million people in Europe, conservative statistics show that perhaps 100 million will be in acute pain right now, including headaches. Forty-eight million people in the USA and 70,000 in New Zealand will have a problem right now. You are not alone! What's going on?

Here's how it happens. We all start out upright: watch four-year-olds running around with their heads balanced perfectly above their shoulders. But then we all bend forward to do things – in school and on into adult life. Do enough of this and the upper/middle back tightens into that bent-forward hunch.

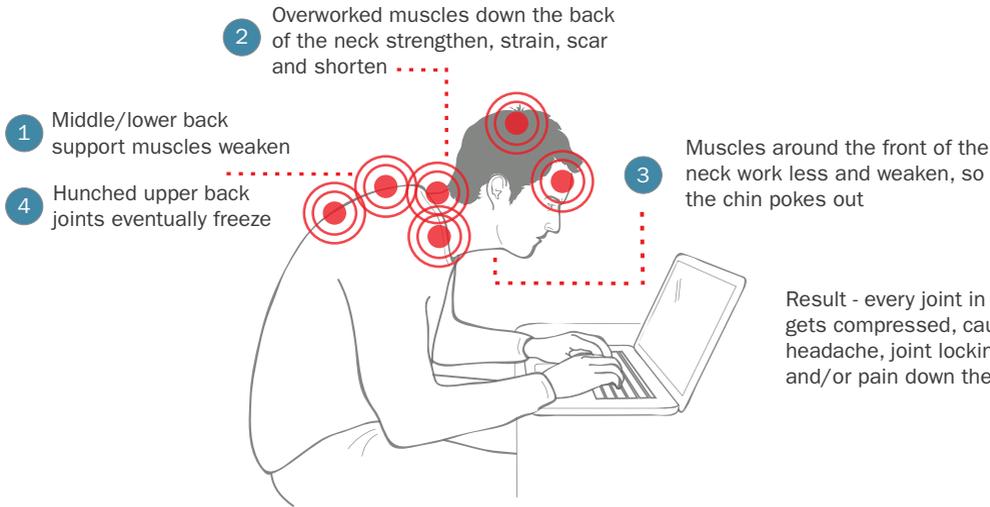
Then the muscles along the back of the neck have to work several times harder just to hold the head up – and they strain, scar and tighten. This puts a compressive load on the joints in the neck giving them a tendency to eventually jam up and lock, which can cause acute pain and headaches. In the worst cases discs and nerves become involved, with pain spreading down the arms. Whiplash and impact injuries also take their toll, but that upper back hunching probably underlies the majority of

upper back and neck problems in the world today. See the iHUNCH page on the Backpod's website www.backpod.co.nz.

And it's getting worse. This forward-bending stoop has accelerated in the last few years with the advent of laptops, tablets, smartphones and similar - see the Wikipedia entry on the iHunch. Unlike desktop computers you can't detach the keyboards from the small screens, so users tend to hunch forward even more. What to do?

The good news is that because it all happens in a logical pattern, you can treat it logically and effectively. But you have to treat all the pieces causing the problem. Often health professionals are so busy or specialised they treat only one or two, so you tend to get only very temporary relief. The Backpod is a high-tech mobilising tool which uses your own upper body weight to let you stretch out the tightened hunched upper and middle back which commonly underlies most neck problems. So you can keep things free - ongoing.

This user guide also provides the basic stretching and strengthening exercises, home massage and postural techniques that you need to treat and care



Result - every joint in the neck gets compressed, causing acute pain, headache, joint locking, nipping of nerves, and/or pain down the arm(s).

for your own upper back and neck at home. These aren't time-consuming or complicated. They are also available free as videos on our website www.backpod.co.nz - on the iHunch page.

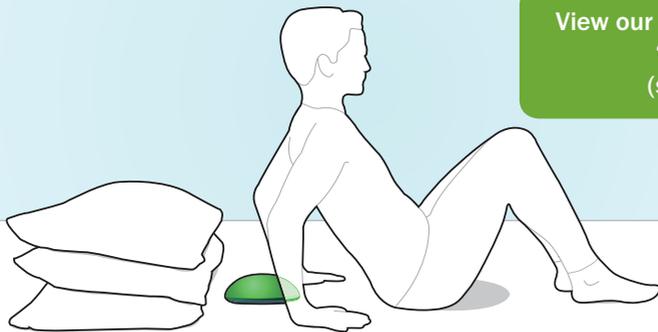
It's fine if you're already receiving help from a doctor, physiotherapist, osteopath, chiropractor, pharmacist or acupuncturist; doing Pilates or yoga; working out at the gym; etc. The Backpod and its programme will generally help and enhance all these other approaches. They provide stand-alone treatment and maintenance for most middle back

and neck problems, but if your specific problem needs extra help, your health practitioner is there to provide it. We all want you, the patient, to get better, and stay that way.

The second part of this user guide is for doctors, physiotherapists, osteopaths, chiropractors and other health professionals. It contains more detailed information on how the Backpod will help their particular treatment approach. The Backpod and its programme are highly effective complements to each speciality.

Instructions: How to use the Backpod®

View our two instruction videos on YouTube:
'How To Use The Backpod'
(shorter and longer version)



The Backpod is designed to stretch out a bent-forward and stiffened upper and middle back, and rib cage. When the joints in the spine have jammed up enough, and the very tough tissue surrounding them has tightened, you can't free them up using your own muscles or body movements. It's no longer enough to just "sit up straight" – you haven't got the leverage to unlock a specific joint or stretch out the stiffened ligaments around it on your own.

You can do it with the help of the Backpod though. Your own body weight provides the force, and the shape of the Backpod localises it to the particular

areas that need to free up.

The stretch provided by the Backpod can be strong, **so the first time you use it, start off with three pillows under your head**, and if necessary layers of fluffy towel over the Backpod itself. This will make the stretch more comfortable. **It should definitely not be actually painful.** However, the Backpod is a real treatment device, not a gimmick, and you could feel some slight discomfort to start off with. It's like stretching a muscle – if you couldn't feel anything, then you wouldn't be doing anything useful. See the few warnings and precautions on pages 7&8.

1 Place the Backpod on the floor, flat side down. (A bed or mattress gives an even milder start to stretching.) Sit on the floor with your knees bent up and your feet on the floor, and gently lower yourself onto the Backpod so that it lies lengthwise under your spine between your shoulder-blades – as shown in the picture on the front cover of this user guide.

2 Place your hands behind your head, and let your shoulders and back relax. **Hold your chin in slightly.** You may feel some slight discomfort but this will usually disappear inside a minute as the spine stretches out a bit. If you think it's still too sore, just add some more padding over the Backpod.



3 Relax in this position for 30-60 seconds. Let your elbows also relax and drop back towards the floor, which will stretch your chest muscles. Breathe slowly and deeply. Any initial discomfort should ease off.

4 Every 30-60 seconds change your position about 50mm (2 inches). Work the Backpod up and down your middle back and about the same distance out to both sides. Don't go up the spine as high as your neck or lower than the bottom of your rib cage. Most tightness occurs around the shoulder blades, so concentrate on that area. **Also position the Backpod about 50mm (2 inches) out to one side of the spine**

between it and the shoulder blades to mobilise the rib joints, which can get tight just as the spine does. Spend several minutes working around the whole middle and upper back area like this. You can do this once a day at home or at work, most days a week. If the spine feels too tender, stretch only every second day.

5 When stretching with the three pillows becomes comfortable, you can make the stretch stronger by using just **two pillows**. When that feels acceptable drop back to **one**, and then to **no pillow at all**. Depending on how tight your back is, it may take weeks to get to this point. Stick with it – it's very tough material you're loosening, and it may have been frozen up for many years. It usually takes three weeks or so for things to mostly free up, but this can vary.

For a stronger stretch, turn the Backpod sideways across your spine. (The tighter curve across the Backpod will apply more localised pressure to your back.) Or lift your buttocks off the floor. Or slowly keep moving your linked hands over your head and back down to your waist. Chase the tightest spots and stay on them for 1-3 minutes. Or combine all of these. You may need this extra leverage especially for the top of your back and ribs.

When all the joints are moving fine, then all you feel (with no pillows) on the Backpod is a satisfying stretch. To keep everything freed up, just use the Backpod once a week, or if things feel like they're getting tight again.

Using the Backpod in a sitting position: You can also use the Backpod in a chair or car seat. Just slip it down between your upper back and the seat and lean back onto it. This sitting position gives a milder stretch than the lying position. When driving a car or truck you can push back against the steering wheel to give a stronger stretch against the Backpod, so it's an excellent opportunity for plenty of stretching when commuting or on a long trip.

Further treatment: The Backpod can stretch out a tight spine more effectively than anyone can with just their own exercises. But some spines can be so tight that they also need manipulation or mobilisation from a manipulating doctor, physiotherapist, osteopath or chiropractor. These practitioners can unlock joints so that the Backpod can then stretch them the rest of the way, and then keep them free. It's a perfect combination - and avoids ongoing repeated manipulations.

Care of your Backpod®

The Backpod itself consists of a strong rigid polycarbonate core (the transparent blue inner part) with a cushioning synthetic rubber outer layer (the flexible apple-green part). The inner core is sculpted to stretch your spine when you lie back on the Backpod and the cushioning outer layer is there to make this comfortable enough.

The Backpod is immensely strong – polycarbonate is the same material used in jet fighter windshields. We've driven a BMW over one to test it for Europe and a Jeep Cherokee to test it for the USA. The Backpod was fine both times. So we don't think it's going to break when anyone lies on it, and we think it will last for many, many years.

Any dust or fluff on the outer green layer can usually be brushed or wiped off with a dry tea-towel or bath towel. More resistant dust or fluff may need wiping off with a warm, damp sponge or towel.

Any oils, such as massage oil or perspiration, should be wiped off as the residue may reduce the life of the green synthetic rubber outer layer. Use a warm, damp sponge or towel, and also mild soap if necessary.

Do not wash the Backpod under a tap or submerge it in a sink or basin – the internal core may fill up with water.

Do not put the Backpod in the microwave, dishwasher, washing machine or oven.

Do not remove the flexible green outer layer of the Backpod as bending it backwards may possibly cause internal cracks in the synthetic rubber.

Cracks on the inside of the green outer layer are not grounds for return of the Backpod because they can only happen if the green layer is pulled off - don't do this.

View our instruction videos online
at www.backpod.co.nz/ihunch

Warnings and precautions

When used sensibly, the Backpod is safe to use for almost all common musculoskeletal conditions involving the upper back, middle back and neck.

It is a passive device and entirely under the user's control. The only force applied comes from the user's own upper body weight which they can lower gently to lie on the Backpod. They can get off again if there are problems. Bodystance Ltd is not liable for any damage or injury resulting from non-directed or non-sensible use of the Backpod, its user guide or website videos.

If problems or pain persist when using the Backpod or following its programme, see your doctor or other appropriate health practitioner. It is not possible to build a single product perfectly suited to every patient; however, the Backpod and its programme should benefit the vast majority of upper back and neck problems. That the Backpod and its programme do not fully solve your particular problem is not grounds for the return of the product – we don't know if you have used it correctly, there may be other things going on, and you may need specific health practitioner intervention(s) as well. You do need to decide for yourself if it is appropriate.

Treatment soreness.

Any effective stretch of tight muscles, joints, tendons or ligaments may produce some discomfort, even mild soreness – just like any warm-up muscle stretch. This doesn't do any harm. Patients commonly describe a “good pain, which is doing the right thing.” It can often happen as things that have been tight for a long time start to free up.

Use of the Backpod should be graded with pillows and even layers of fluffy towel over the Backpod itself so it's not too uncomfortable on any one stretch. Stretching only every second day is recommended if the spine is too tender. If pain is clearly extreme, or persists for more than a day or two, see your doctor or other health professional.

Don't use the Backpod if there is reason to suspect a bony fracture, cancer or other relevant medical conditions.

Don't use the Backpod in the presence of recent surgery, wounds, bruising, infections, shingles or other skin lesions in the area. Watch that any catch on a bra strap doesn't dig in painfully.

Don't use the Backpod for children. Their bones are still growing and their joints are usually fully flexible anyway. However, the Backpod's programme of muscle strengthening, posture education and home massage can be extremely helpful. It is also available as videos on our website www.backpod.co.nz.

Osteoporosis and osteopenia

These are conditions of reduced bone density, making the bones more at risk of a fracture. The Backpod should be used with increased caution, but mild degrees of these conditions are not a total contra-indication. The Backpod provides only a passive stretch of the spine, and can be gently graded by using pillows under the head and padding over the Backpod itself. If unsure, check with your doctor first.

Scheuermann's Osteochondritis

The Backpod may irritate this condition when it is in the inflammatory phase. However, it is highly appropriate for treatment of the common tight flexed middle and upper back that remains once the inflammation has settled. If unsure, check with your doctor first.

Straight or concave middle and upper backs

This is the one fairly common case where the standard use of the Backpod won't help. About 4% of middle backs are straight or even slightly hollowed. This is usually because of a fall on the back or other impact, or an excessively rigid upright posture.

The Backpod used in the usual way will push these spines further in the wrong direction, causing compressive loading on the joints at the back of the bony vertebrae, which can then jam.

If you think you might have this sort of back, just get someone to look at your spine between the shoulder-blades. If it's straight or hollowed, and the Backpod is not helping, see your health professional. There is an effective use of the Backpod for this type of spine outlined on page 17 of the Health Practitioner pages: "Backpod for straight or concave thoracic spines". The Backpod programme will help in any case – especially the massage (see pages 13 & 14: "Massage – two simple techniques").

The straightening programme (1): One simple muscle stretch

Flexibility is good for you. In an ideal world, we'd have time to do an hour's stretching every day. If you haven't got that time, here is the single stretch with the greatest benefit for most neck problems. It is for the upper trapezius muscle which runs from the point of your shoulder across to the spine and up to the base of your skull. When you're wearing a backpack, this is the muscle the straps are resting on, and it's what you use when you shrug. It's usually the first one to tighten up with stress and lots of bent forward work. When you see someone with their shoulders held up around their ears, they need this stretch.

This is a simple side-bending stretch, which can be done sitting or standing. Drop one arm and shoulder down towards the ground and stretch your head sideways away from it, using your other hand to pull your head towards your other shoulder. Keep the dropped shoulder relaxed. You can bend your head forward slightly, and rotate it a little, to pull on different fibres of the muscle. When doing this stretch while sitting, tuck the hand of the dropped arm under your buttock to help keep the shoulder dropped.

If you're doing this at home, hold the stretch for 30 seconds, then do the same for the other side. Do two or three stretches if you have time. In a busy and stressful workplace, even a ten-second stretch from time to time will usually stop the muscle straining and tightening.



View our instruction videos online
at www.backpod.co.nz/ihunch

The straightening programme (2): Two simple strengthening exercises

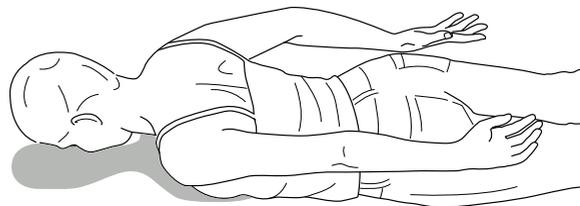
A full gym strengthening programme will do a more thorough job of building up the strength you need to live your busy life. If you can't fit that in, here are the two strengthening exercises giving you the maximum benefit for the time and effort involved.

The common hunched-forward upper back/poked-chin posture which is the basis of most neck and upper back problems has two main areas of muscle weakness. One is around the middle back and includes the muscles which anchor and stabilise the shoulder-blades and stop the upper back from drooping forward. (These include the middle and lower trapezius fibres and the rhomboid muscles.) The second group that gets really weak are the deep muscles around the front of the neck. When this happens, the chin pokes out and the joints at the back of the neck bones are compressed, which can result in joints jamming and trapping of the nerves which run out between the bony vertebrae.

1 To strengthen between the shoulder-blades, lie on your front, arms by your sides with palms upwards, chin tucked in. Squeeze your shoulder-blades together, lift your chest slightly up off the

ground, and lift your straight arms up so they are just off the ground. Hold that position for **five seconds** and then relax. Do it ten times in a row. This is called a 'set'. Rest for a minute, then do another set. Rest for another minute, then do a third set.

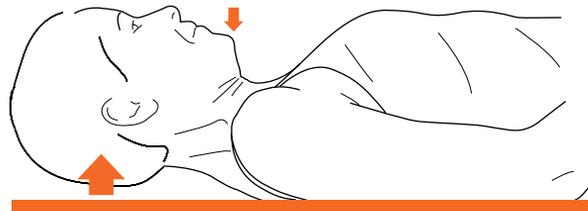
Do this exercise at home every day or every second day. When it becomes easy, move your hands inwards so the knuckles are just above each buttock. When that becomes easy, do it holding a half-kilogram (one pound) weight in each hand. Then when that's easy, use a 1kg (2lb) weight; then finally progress to a 2kg (4lb) weight. You can stop there - you're strong enough! If you don't have hand weights, you can use cans of beans for half-kilogram weights, and one-litre plastic bottles filled with water for the 1kg weights, and 2L bottles for the 2kg weights.



2 To strengthen the front neck muscles, lie on your back on the floor with your knees bent and your feet on the floor. Roll your head slightly to tuck your chin in, hold it carefully in, and lift the back of your head only a centimetre or two (half an inch) off the floor. Hold that position for **ten seconds**, then relax and rest. Repeat the exercise until you have done it ten times.

It's most important that this exercise be done accurately – don't let the chin poke out or the head come too far off the floor. To start with, if you can't hold the position for a full ten seconds, just hold it correctly for as long as you can. Also, if you can't do ten lifts in a row, just do as many as you can correctly. Don't be discouraged if it's hard – it may take weeks before you are strong enough to manage ten full ten-second lifts in a row.

If your front neck muscles are really weak, and with your chin held in you can't lift your head off the floor at all - don't give up. It's just where you're starting from and they'll get stronger - muscles are really good at that. Just do the exercise as described in the first paragraph but don't even try to lift the head



off as well. When you can firmly hold your chin in for ten seconds, ten times in a row, and do three lots of that easily enough – then you'll be strong enough to start lifting the head off as well.

The reason for these two exercises is to get the muscles strong enough to use during the day to hold your neck and upper back in a neutral position which won't strain muscles or joints. This is explained on the next page: 'Posture'.

View our instruction videos online
at www.backpod.co.nz/ihunch

The straightening programme (3): Posture

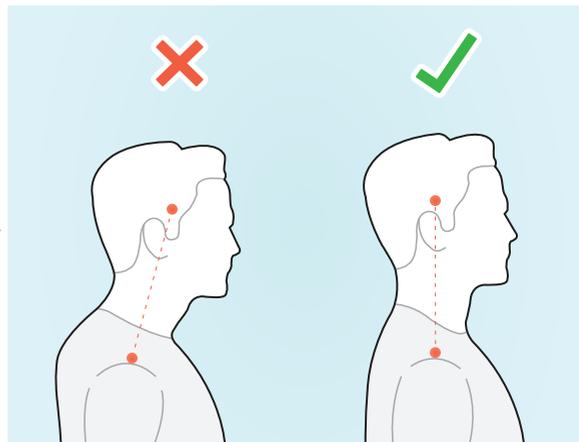
This is easier than you think. The two exercises in the preceding strengthening section will give you the strength you need to hold your neck in a neutral position so that your joints won't jam, even when you are bending forward. Posture is the practical daily application of that strength. It's often explained in a confusing and complicated way and it doesn't need to be. Here's how simple it is:

1 For the neck, hold your chin in a little. Don't let it poke out.

2 For the upper and middle back, hold your shoulders back and down a little. Don't let them hunch.

If you're not sure exactly how far to go, just do both actions as far and as hard as you can, then relax a little from that position. Initially you'll often forget to hold your neck and shoulders like this, but don't give up – it becomes automatic with enough practice, and easy when the muscles get stronger.

One indicator that you're getting it right is that your ear lobe sits vertically above the point of your shoulder. (You can notice someone getting it badly wrong – seen from side on, the back of their head will sit vertically above the front of their chest.)



Posture is important not just for pain relief. Research shows a hunched posture indicates and may even drive a lack of personal confidence, and also correlates strongly with not being listened to.

Perfect posture gets attention. For an inspiring explanation of this, Google Dr Amy Cuddy's TED talk (with over 50 million views) on posture and body language.

See also the 'Perfect Posture' page on the Backpod's website www.backpod.co.nz.

The straightening programme (4): Massage - two simple techniques

In an ideal world, frequent massage would be part of our lives. Failing that, here are the two massage techniques that are of most use in most neck problems. You need a massage partner. If you haven't got someone on hand, find someone else with a neck problem – which shouldn't be too difficult!

The main muscles that need massage run from the base of the skull down the back of the neck to below the shoulder blades, and also out to the points of the shoulders. (The main ones are called the trapezius, rhomboid and levator scapulae muscles.) When they fatigue and strain, small tears occur which scar up as part of their repair process. A build-up of this scarring (called adhesive fibrosis) shortens the muscles, lifting the shoulders up towards the ears and pulling the head back so the chin pokes out.

The upper trapezius stretch shown in the stretching section on page 9 is a good daily way of keeping that part of these muscles elastic but if they are scarred enough they will also need massage. Massage has much more leverage on tight, tough

muscle scarring than just stretching – like a rolling pin flattening out a chunk of dough into a pancake. Deep tissue massage like this shouldn't be done more than once a week – the tissues need time to recover. You will need some massage wax, massage oil or cooking oil to let your fingers slide easily over the skin.



1 Sitting massage position.

Patient: sit at a desk or table with your forehead on a pillow, rolled towel or something else comfortable.

Clasp your hands behind your neck, then slide them up onto the back of your head, pulling your hair up and out of the way. Tuck your chin in so that the muscles at the back of the neck are gently stretched.

Person massaging: work up and down the neck and back muscles from just below the shoulder blades right up to the base of the skull. Take your time and go gently to start with. Use your fingers, thumbs or knuckles to work the muscle fibres lengthwise. You may feel harder lumpy bits in the muscles – they are the scarred patches so concentrate on them. Spend about 10-15 minutes doing this.



2 Side lying massage position.

Patient: lie on your side, with your head dropped sideways (without a pillow if that's comfortable enough). Your top shoulder should be relaxed and dropped in the direction of your hip, with your hand around your buttock to hold it like that. Your hips and knees should be bent up so you don't roll around. This position stretches the upper trapezius muscle running from the shoulder up the neck to the base of the skull, which is usually the first one to strain and tighten during bent forward work.

Person massaging: massage along the length of this muscle. Concentrate on the hard patch of scar tissue usually found between the shoulder and the neck. Start gently. You can work more deeply into the muscles once they have warmed up. Spend about 5-10 minutes working on each side.



About us

The Backpod® is a product from Bodystance Ltd, a New Zealand company bringing practical innovations and solutions to very-large-number musculoskeletal problems worldwide. The Backpod® and its programme were developed and tested in New Zealand, and are immediately applicable to most neck and upper back problems anywhere in the developed world - they are the same spines with the same forces acting upon them.

Bodystance Ltd is registered with Medsafe, the New Zealand Medicines and Medical Devices Safety Authority (www.medsafe.govt.nz) and the Backpod® has been notified to the Medsafe data base for medical devices.

USA: The Backpod® has been approved by the FDA as a classification 1, FDA-exempt medical device.

Import and Distribution: Germany

Bodystance GmbH
Berliner Platz 10
97080 Würzburg
e: info@backpod.de
t: +49 931 359 390
f: +49 931 359 3920
www.backpod.de



Contact us

Manufacturer:



Bodystance Ltd
Studio 9
31 Dowling Street
Dunedin 9016
New Zealand

email: bodystance@gmail.com
cellphone: +64 274 463 356
www.backpod.co.nz

Product Information: UK

Delphic HSE Solutions Ltd.
5th Floor Abbey House,
282 Farnborough Rd.,
Farnborough, GU14 7NA, UK.
t: +44 (0)1252 856 700
www.delphichse.com

See pages
3-5 inside
for more
detailed user
instructions

Find us on:
facebook[®]
/TheBackpod



- 1** To start - Lie back on the floor with your knees bent and your head resting on three pillows.
- 2** Position the Backpod lengthwise under your spine between your shoulder-blades. Add layers of towel over the Backpod for more comfort if desired.
- 3** Place your hands under your head and relax onto the Backpod for 30 seconds. Repeat this stretch several times, re-positioning the Backpod up and down the middle back and slightly out to the sides of the spine.

View our instruction videos on YouTube: 'How To Use The Backpod'

This Bodystance[®] product and its user guide are designed to help the vast majority of upper back, middle back, and neck problems. Your particular problem may also need health practitioner expertise.

See this user guide or our website www.bodystance.co.nz for detailed information and precautions about using the Backpod[®]. If you are unsure, or should pain persist, check with your health professional.

HOW TO USE



VIEW NOW

DO READ the more detailed instructions in this user guide, or view them as videos from the HOW TO USE QR code, or on our website www.backpod.co.nz

Bodystance[®]
Designed and made in New Zealand

Bodystance[®] is a registered trademark of Bodystance Limited, Dunedin, New Zealand. Backpod[®], Bodystance Limited.



reddot design award
honourable mention 2013

FINALIST
NEW ZEALAND
INNOVATORS
AWARDS 2013



Best Design Awards
Winner 2013

GERMAN DESIGN AWARDS

NEW ZEALAND DESIGN AWARDS