

+ HOW TO FIX YOUR OWN COSTOCHONDRITIS AND TIETZE'S SYNDROME - INTRODUCTION TO THE TREATMENT PLAN.

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This is what we find actually works to fix costochondritis and Tietze's Syndrome, in nearly all cases. Lord knows it's needed. Tietze's Syndrome is just costochondritis bad enough to show actual swelling at the rib joints on your breastbone - it's not a whole different clinical entity.

I do sympathise. I had costo myself for seven years before fixing it - completely. So I have been through the scary sharp stabbing chest pain, the breathing difficulties, the confusion about what's going on, and the fear I was having a heart attack. I do know what you're going through.

I lucked in. I trained as a manual physiotherapist in New Zealand, where costochondritis is generally understood correctly as a straightforward mechanical problem, and usually readily fixed. Mine was completely fixed over 30 years ago - I haven't had any pain whatsoever since then. We've been astounded to discover that most of the rest of the medical world still sees it - incorrectly - as a "mysterious inflammation" and doesn't fix it. Yes, this is nuts.

This treatment plan and approach is solidly based on the actual published medical research, my New Zealand manual physiotherapy understanding of costo, over 30 years of treating patients, and well over 10,000 treatment discussions with costo patients from all round the world. Where I've worked over the last 30 years as a manual physiotherapist in New Zealand, completely fixing the patient's costo would be the normal and expected result of treatment. It's just not that difficult.

The doom and gloom and confusion about costo is almost entirely because the problem has been understood wrongly, and therefore not treated correctly. The "mysterious inflammation" idea is a complete misunderstanding of what's actually going on. So is the idea that "it'll settle down soon" - the actual published medical research shows that mostly it won't.

The '-itis' ending of the word 'costochondritis' means 'inflammation.' But there is absolutely no medical research basis for using this word to describe the problem. Worse - there is clear published medical evidence showing it's definitely NOT an inflammation, or at least certainly not an auto-immune or systemic one. I've put up a video on YouTube briefly covering the actual medical research: 'Costochondritis and Tietze's Syndrome: The published medical research on how to fix them.' The link is <https://www.youtube.com/watch?v=t8k2LCLeR24&t=353s>

This is an extraordinary situation, and you are probably still in pain because of it. Busy, caring doctors will check out your heart and other dire possibilities in case they're the reason for your chest pain. This is always first priority, and they're very good at it. However, when those are all

clear, they'll usually diagnose your chest pain as costochondritis and prescribe you anti-inflammatory medications to counter the assumed inflammation. Basically, this purely anti-inflammatory approach misses the point and doesn't fix the costo. You probably know this by now.

What costochondritis actually IS:

Costochondritis is essentially a straightforward physiotherapy-type problem, where the joints at the back of your rib cage are frozen and can't move. That's why you also get a lesser pain round the back between your shoulder blades, and why you can't take a full breath in - because the tight joints mean your rib cage can't expand fully; it's like wearing a tight corset. (The lack of movement at these joints does not show on X-rays, CAT or MRI scans, because these are all still photos, which cannot show whether the joints are moving freely or not at all.)

The frozen rib joints around the back also cause the rib joints on your breastbone to move excessively to compensate - every breath you take. So they crack, pop, 'give', strain and get painful - and welcome to costo. That's what it IS. It is NOT a "mysterious inflammation" arriving out of a clear blue sky for no reason - no matter who has told you it is. It's a mechanical problem - like having the hand brake jammed on in your car. You don't fix it by putting additives in the petrol.

This is explained more fully in under two minutes in my YouTube video 'Quick simple how to fix (most) costochondritis and Tietze's Syndrome - the short version' Link is <https://www.youtube.com/watch?v=2qqDUWmNV3Y&t=20s>

How you actually fix it:

So - you fix costo by freeing up the tight rib and spinal machinery around the back which is driving the compensatory strain and pain around the front. The actual published medical research in the peer-reviewed journals fully supports this view, and does NOT support the "mysterious inflammation" idea. Yes, this really is a bit nuts.

Of course nothing beats a personal examination and specific treatment tailored to your particular spine and ribs from a doctor, physio (PT), chiropractor or osteopath who knows what they're doing with costo. But finding one who actually does is a complete lottery, and I've almost given up.

You are simply very unlikely to find any health professional, including your doctor, who's actually going to know what to do. They are out there, but I don't know how to find them outside New Zealand and Australia (apart from a handful whom I've come across personally). So you're going to have to fix it yourself. Cheeringly, this isn't particularly difficult.

So, what follows is the (mostly) home treatment approach we find has the best results worldwide in actually fixing costo. Of course I haven't seen you in person as a patient. But the same basic principles of treatment apply - and these aren't difficult. It's up to you do put the effort in, do the reading, watch the videos, understand where we're coming from, and sensibly apply what we're saying to your specific case. You're the one in pain - you do the work.

It's often the details that make the difference. So the instructions are wordy. You can skim over the bits that don't apply to you, but the fine detail is there if you need it. It's probably easier to follow on a desk top computer, laptop or tablet rather than a phone. Or print it out.

Read and watch everything I've suggested. Ideally, go over it with a friend - two heads are better than one. Take notes if you need to. That should give you a good understanding of what's going on, and the road map to fixing it. Apply it to yourself thoughtfully - make it work for you. You don't need anybody's permission.

Keep watching the Backpod's New Zealand website for updates - the link to the Costochondritis page is <https://www.bodystance.co.nz/en/costochondritis/>

We're setting up a whole new website specifically on costochondritis and Tietze's Syndrome - it's www.CostochondritisAnswers.com or you can just use CostoAnswers.com This will be really comprehensive - over 100 detailed searchable FAQs, explanations and topics, with specific videos, answering all the main questions I've been asked about costo and Tietze's over the last several years.

It's for patients, but also for doctors, specialists (including pain specialists and rheumatologists), Accident and Emergency departments, physiotherapists (PTs), chiropractors, osteopaths and other health professionals treating costo - including the best hands-on treatment techniques to use. Realistically, it's going to be the main world resource on costo, Tietze's and the practical details of fixing them. We hope to have it up and running by July or August, 2022.

Good luck with the work. Steve August (B.A., Dip.Physio.).

+ (1) STOP HURTING IT.

I know you're desperate to get back into some exercise, and you're losing fitness as long as you're not doing any. The costo doesn't care.

You can't train through costo - it's different from a muscle strain, say. The reason is that any general exercise or stretch or load just strains further the already strained rib joints on your breastbone - way before you get a benefit to the tight rib machinery around the back. There are YouTube videos around saying you can fix costo just by exercises and stretches - they don't understand the problem.

What works is FIRST stopping anything that hurts. Every time it hurts you're simply straining further the already strained rib joints on your breastbone. It's like running on an acutely sprained ankle - it's going to make it worse, not better. No, you're not going to run through it and fix it.

It's the same with home and work activities - try to avoid anything that you know will hurt. Of course this may not be completely possible, but do what you can. It's only temporary. You're just avoiding stirring up the costo while you're working on fixing the underlying cause of the problem.

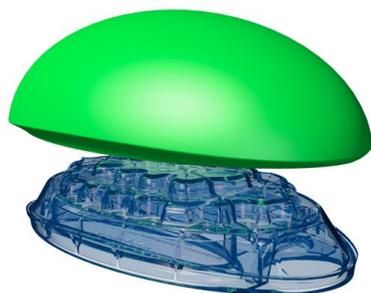
So, what you have to do is free up the frozen rib machinery around the back - which is causing the rib joint strain and pain at the front - FIRST. We use the Backpod for this. You have to specifically free up the tight rib joints around the back without also further straining the already strained rib joints at the front. The Backpod is specifically designed and built for this - no, it's not the same as a foam roller, tennis ball, etc.; see the next Section.

This doesn't take forever - it usually takes only about three weeks of accurate daily use of the Backpod to free up the rib joints mostly. Of course this varies, especially if you have other medical conditions, or if the rib and spinal machinery has been frozen solid for years.

So - stop doing things which hurt the costo until the rib joints round the back have freed up. You can tell when they have because then you can lie back on the Backpod - with no pillows under your head - and not feel any soreness. That means the hinges are now moving pretty well.

You'll need a few other bits of the problem dealt to as well, but freeing up the tight rib machinery around your back is the irreducible core of fixing costochondritis.

+ (2) GET A BACKPOD AND USE IT CORRECTLY, AND FOR LONG ENOUGH FOR IT TO WORK.



WHY A BACKPOD?

As far as we can tell, the Backpod is the only device available that does a really effective stretch to tight and frozen rib joints round your back, where your ribs hinge onto your spine.

It's not just a matter of lying on something. What you're needing to do is stretch out the very tough collagen material which has tightened down around the frozen rib joints round your middle back, so these rib hinges can move freely and fully again - like they used to. This is the irreducible core of fixing costochondritis. When the rib joints round the back can move okay again, then the rib joints at the front don't have to keep straining, giving, popping and hurting.

Now, collagen is seriously tough - it's stronger by weight than steel wire. It makes up your ligaments, fascia and joint capsules, and is what holds your skeleton together - muscles just move it around. You can stretch it, but you need a lot of sustained specific strong leverage. The practical way to do it is by lying back on some sort of fulcrum that has enough oomph to actually stretch the stuff.

A foam roller can't do that, because its long cylindrical shape spreads your upper body weight too much, so you don't get a strong enough stretch onto the specific rib hinges. A rolled towel or anything else too soft can't either - they're too squashy to give much oomph. All other spinal curvy things I've seen have such wide curves that again they can't provide much leverage.

All balls and rollers are unstable, which means your muscles can't relax when you're on them. This is fine on a roller, say, for bringing in core muscle contraction to strengthen your abs. But if you're trying to stretch tight or frozen rib joints, then the automatic guarding contraction of the surrounding muscles opposes and partly blocks the stretch.

So, if you actually know what you're doing in this area, you design the Backpod. Small, peaked form to give a lot of specific leverage to the rib and spinal joints. Flat stable base so your muscles can relax on it. Unyielding shaped core so there's enough force to the stretch. Cushioned synthetic rubber outer so that the stretch isn't sore - if you use it correctly, according to the instructions. Clear directions on how to grade the stretch so it isn't too hard to start off with.

The transparent blue core is polycarbonate - the same material used for the windshields of fighter aircraft. We drove a BMW over one to test it for the EU, and a Jeep Cherokee to test it for America - the Backpod was fine. We think it will last a lifetime, though it's too early to tell.

If the problem is a tight nut, then you do want a spanner.

USING THE BACKPOD FOR COSTOCHONDRITIS AND TIETZE'S SYNDROME:

The irreducible core of fixing costo is freeing up the frozen rib and spinal machinery around your back which is causing it. It usually takes only about three weeks of daily stretches on the Backpod to mostly free up the tight ribs - the same sort of timing as stretching really tight hamstrings until you can touch your toes. Of course this varies, especially if you have other medical conditions, but you usually have a clear, obvious improvement in the first week to let you know you're on the right track.

Stick with it - it's very tough stuff you're stretching and it takes time. Do please READ THE INSTRUCTIONS and the 'Warnings and precautions' section in the 31-page user guide. If for some reason you haven't got one, there is also a pdf copy of the full user guide near the bottom of the iHunch and Costochondritis pages on the Backpod's website - <https://www.bodystance.co.nz/assets/Uploads/backpod-full-user-guide-feb-2020.pdf>. These are the best detailed instructions on how to use the Backpod. PLEASE READ THEM.

To be clear - you use the Backpod up and down your back to stretch out a tight, hunched thoracic spine, AND ALSO up and down slightly out to the sides of your spine to stretch the rib joints. You need both. You need to free up the whole area - rib and spinal joints both.

The detail on how to use the Backpod is also shown in our YouTube video 'How to use the Backpod (longer version)' - link is <https://www.youtube.com/watch?v=dTJ8Hlv1RnU&t=5s>

We start people off really gently because often they just do too much initially and get sore. You are starting to stretch joints that haven't moved for months or years and you can get a bit of normal treatment tenderness for a few days. It's a lot like stretching hamstring muscles that are so tight you can't touch your knees - takes a while before you can reach your toes.

When you no longer need a pillow under your head when you're lying on the Backpod, get some more oomph out of it by lifting your buttocks off the ground, using the Backpod crosswise across the upper back (gives more leverage), as well as lengthwise and out to the sides a little (to get the ribs). Try adding in linking your fingers together and slowly moving your arms up over your head and down to your waist repeatedly; try that with just one arm as well. Chase the tightest bits and spend 1-3 minutes on each.

Also, when you get to that point - but not before - start doing the sitting twist exercise I showed 12.54 minutes into the 'How to Fix most Costo and Tietze's , Part (2)' YouTube video - <https://www.youtube.com/watch?v=r7ve6nNVdWc&t=2s> This is to work the joints now they're reasonably unlocked - like working a rusty hinge back and forth after you put some oil on it.

You can also start doing the rib cage stretches I explained at 10.15 and 11.48 minutes into that same video. These aren't as important as the twist exercise, though.

If any soreness on using the Backpod:

The Backpod should not be painful to use.

Look, DO get this into perspective. ALL the Backpod is doing is giving a stretch to tight rib joints and spinal joints in your middle back. If those joints are moving fine, as they used to, then all you feel is a satisfying stretch on the Backpod - no pain. That's what they used to be like and what you're aiming to get back to. It's like having good flexible hamstring muscles - you can bend down and touch your toes with no strain and no pain.

But with costo, the rib joints round the back have usually been frozen solid for months or years. If you stretch ANY tight joint or muscle too much in one go then it will get a bit sore. So - you don't do that.

ALL you have to do is FOLLOW THE INSTRUCTIONS and grade the stretch with pillow(s) under your head so it's just a reasonable one. THIS IS NOT DIFFICULT. You can also cushion the Backpod further with a few layers of fluffy towel over it, or start off on a bed rather than the floor. It's completely under your own control. The Backpod won't leap for your throat when you open the box.

You do have to feel something when you're on the Backpod, otherwise it wouldn't be doing a stretch. It's exactly the same as stretching a hamstring - if you couldn't feel some stretch then it wouldn't be stretching. But if it's actually painful to use the Backpod then you're doing too hard a stretch for how tight the joints are at the moment. Just use another pillow under your head so it's not really painful. You control it fully - just grade the stretch sensibly.

Any soreness is usually only in the first week anyway, as the joints start to move again. It's like a bit of muscle tenderness after going for a run or a gym workout for the first time in a while - it won't do any harm and it's not a big deal.

It usually takes about three weeks of daily stretching on the Backpod to mostly free up tight rib and spinal joints. Of course this varies. Of course it can take longer if you've been frozen solid at those joints for years, or have other medical problems. Stick with it.

The main reasons for any soreness on using the Backpod:

(1) Using it wrongly. This is overwhelmingly the main reason for any soreness using the Backpod. It includes doing too much to start off with, especially over the first week. All you have to do is grade the stretch with pillows under your head, etc., so it's just a reasonable stretch and not a painful one. THIS IS NOT DIFFICULT.

The full 31-page user guide has clear instructions on pages 3-5 on how to use the Backpod. It doesn't come with Backpods sold in the EU and possibly the UK, for regulatory reasons, unfortunately. There is a pdf copy of the full user guide near the bottom of the iHunch and Costochondritis pages on the Backpod's website - <https://www.bodystance.co.nz/assets/Uploads/backpod-full-user-guide-feb-2020.pdf>. Please read it carefully and thoroughly - these are the best instructions on how to use the Backpod.

There is also a YouTube video 'How to use the Backpod (longer version)' - link is <https://www.youtube.com/watch?v=dTJ8Hlv1RnU&t=5s>

(2) Contraindications. There are a very few simple and sensible reasons the Backpod can be sore and shouldn't be used. These are on pages 7 & 8 of the full user guide - the 'Warnings and precautions' section. They include osteoporosis (weak bones), suspected cancers, fractures, wounds, bruising, skin conditions like shingles, etc. If in doubt, check with your doctor. But it's still only a stretch over a cushioned lump - it's way less force than a chiropractic manipulation, say.

(3) Flat or hollowed thoracic spine (middle back). Used in the usual way on the spine itself, the Backpod is designed to quietly stretch out a hunched middle back (thoracic spine). This is an enormously common problem anyway, with everyone bending over laptops, tablets and smartphones. It's mainly what we built the Backpod and its simple home programme for. See the iHunch page on the Backpod's website - <https://www.bodystance.co.nz/en/ihunch/>

However if your thoracic spine is one of the few percent which is flat or even concave (hollowed), then the Backpod used in the standard way on your spine will make that worse. You can tell what your middle and upper back is like by just getting someone to look at you from the side while you're standing or sitting up straight.

So in this one case, you use the Backpod in a different way. Essentially you lie on the Backpod on your front, not your back, with the Backpod under your sternum (breastbone). This starts to stretch the thoracic spine from flattened or hollow back towards its correct slightly forward curve.

The stretch like this isn't strong enough just on its own, so you need to talk someone into jiggling and stretching the vertebrae of your spine (the bony bumps down the back) when you're in the position - it's not difficult. It's described in detail on page 17 of the Backpod's full user guide. You may need a physiotherapist or PT to do this. Take the Backpod and its user guide and a friend along - the physio or PT can show them how to do it at home as a follow-on. It's a simple and safe stretching technique.

For costochondritis, you still use the Backpod BESIDE your spine in the usual way to stretch the tight rib joints around the back. These are the crucial joints needed to free up to fix costo. Once they're moving freely again, then the rib joints at the other ends of the same ribs where they hinge onto your breastbone don't have to keep straining to do all the movement needed for breathing.

(4) Soreness around the front as the back frees up. This can happen as the rib machinery around the back frees up, especially if you've been hunched and in pain for months or years. As the rib and spinal joints round the back start moving again, you'll sit straighter and move more freely and fully. This means you can get a tugging on any pec muscle or soft tissue tightness or scarring around the front, especially if you've had Tietze's with some swelling at the rib joints on the breastbone. Costo is pretty hair trigger anyway, so you can get temporarily sorer here.

All it means is you have to deal to this front tightness as well. Pec stretches and massage will usually do it fine - see sections (3), (4) and (6) below. It's just the front part of the whole problem.

(5) You're a wimp. Sorry, but some people are. If after reading all this you still can't bring yourself to lie back on the Backpod with a reasonable - not painful - stretch on the tight rib and spinal joints, then that's your problem. Don't bother me with it. You can make things easier on yourself by using a heat pad or hot water bottle on your back before using the Backpod, or add in the massages discussed in Section (3), or have a glass of wine. But essentially if you can't tolerate a bit of normal temporary treatment tenderness as part of fixing your costo, then you can't.

Tingling and numbness down the arm(s). Occasionally, you can get a bit of tingling or numbness down your arm(s) as things start to stretch. This just means you're really tight to start with in the muscles where your nerves run through your shoulder girdle and down your arm. These are getting stretched when you lie on the Backpod - which is a good thing. The tingling and numbness is just from the nerves being pulled on a bit as they stretch. It's a bit like waking up with a numb arm after sleeping with it in a funny position - it's not a biggie.

You can put a pillow under each elbow when you're lying on the Backpod. Or simply drop your arms by your sides. (You won't need to when the tight spine is a bit looser.) That'll mean there isn't as much stretch on the muscles and nerves down the arm.

Ideally, go and see a good massage therapist and get him or her to work all round your chest, shoulder girdle and the muscles down the arms. That'll loosen the muscles the nerves are running through. However do it safely with COVID-19 around. Ideally, you should both wear N95 masks and hand sanitise before and afterwards. Then when you get home get straight into the shower, including washing your hair.

As well, you can start stretching the nerves and muscles gently. Lie on your back on a table, desk or bench, knees bent up, with your shoulder just off the edge of the table, etc. Hold your arm straight out horizontally - at 90° to your torso. Hold your palm upwards, then bend your hand and fingers back, then drop the straight arm gently down towards the floor until you feel a good stretch and even some tingling down the arm. That's stretching the nerves and pec muscles.

Hold for several seconds, then lift up the arm to take the stretch off, then do again, several times gently. It's just a stretch. Do this once or twice a day.

It'll all disappear when things are loose enough. That you have the tingles/numbness at all does mean you were really tight to begin with. It'll stretch (and massage) out fine.

HOW TO GET A BACKPOD.

To source a Backpod, go to the BUY page on our New Zealand website - <https://www.bodystance.co.nz/buy-now> Just scroll down the list to your country. These are our ONLY official stockists; watch out for expensive rip-offs elsewhere. All Backpods are made in New Zealand, though they're also kept in various depots around the world for fast supply to purchasers; usually with free shipping.

UK: Our German partners have set up a dedicated UK depot and website for selling Backpods in the UK - link is <https://www.bodystance.eu/en/the-backpod/1/backpod> The current price (in July 2022) is £68.37 with free shipping. It may change, so this isn't binding. They may also sell the Backpod on [Amazon.co.uk](https://www.amazon.co.uk)

EU: The easiest and quickest way to get one is simply from our German partners at www.bodystance.eu Their price as I write this in July 2022 is €79.50 with free shipping. They also sell the Backpod on the European Amazon sites.

US: They're on [Amazon.com](https://www.amazon.com) for US\$68.88 (in July 2022 - this may change), with free shipping. Or otherwise just look down the list of official suppliers on the Backpod's New Zealand website at <https://www.bodystance.co.nz/buy-now> These are the ONLY official suppliers of the Backpod.

Still not cheap, but all Backpods are made here in New Zealand, and we're halfway round the world from most places. (Try sending something to us and see how much it costs you.) So that shipping cost is built into the purchase price, even though the Backpods also sit in depots in Germany, Canada, Singapore, etc. for fast delivery to the UK, EU, US and elsewhere.

Do watch out for rip-off artists on Amazon, eBay, ONBUY, NineLife, etc. who are selling the Backpod for many times our official sellers' price in the hope they'll suck someone into buying it. It's nothing to do with us whatsoever - don't buy one. The record so far is one on eBay for US\$510.

It's hard to stop because it's legal. They just advertise the Backpod at a huge price; they don't even have one in stock themselves. Then if someone buys it they simply buy one from one of our official suppliers and send it on to their customer. They do it with other sought-after items, of course, not just the Backpod. If you've ever wondered why something you're interested in on the net is also selling at multiple times the price - this is why.

The Backpod isn't available in all countries. If no luck where you live, try emailing or ringing the nearest supplier off our list directly. If still no luck, then try getting a friend elsewhere in the world to send you one.

+ (3) MASSAGE FOR THE TIGHT, SCARRED MUSCLES OVERLYING THE FROZEN JOINTS.

(1) Ideally, shout yourself a sports massage - preferably two or even a few, with a week off in between. When you've had costo for more than a few months, the muscles between and overlying the tight ribs around your back and sides, plus the pec muscles on your chest, also get tight and scarred.

Massage is ideal for loosening them up. It's part of fixing costo - especially if you've had the pain for years, or it's from old impact scarring or after surgery. However do it safely with COVID-19 around. Ideally, you should both wear masks and hand sanitise. Then when you get home get straight into the shower, including washing your hair.

(2) As well, if possible, talk, bargain or bribe someone into doing the **two home massages** in the Backpod's full user guide. Ideally, about once every 5-7 days, for at least a few weeks. When doing the first one, get your massage buddy to go hard between your shoulder blades. The home massages will usually make using the Backpod much easier immediately, by easing up the tender, tight scarred muscle overlying the tight rib and spinal joints underneath.

I have observed with my patients that bargains often work better than favours, and someone doing the massages on you should at least get breakfast in bed in return, or a coffee, or whatever.

These **two home massages** in the full user guide are also both shown as videos on the Backpod's iHunch page: link is <https://www.bodystance.co.nz/en/ihunch/>

The two videos are also free to watch on YouTube:

(a) 'The single most useful neck massage for neck pain, headache and the iHunch.' Link is <https://www.youtube.com/watch?v=9eLUQX03loE&t=22s>

(b) 'The NEXT most useful neck massage (upper trapezius) for neck pain, headache and the iHunch.' Link is <https://www.youtube.com/watch?v=wq5pu5p8PUM>

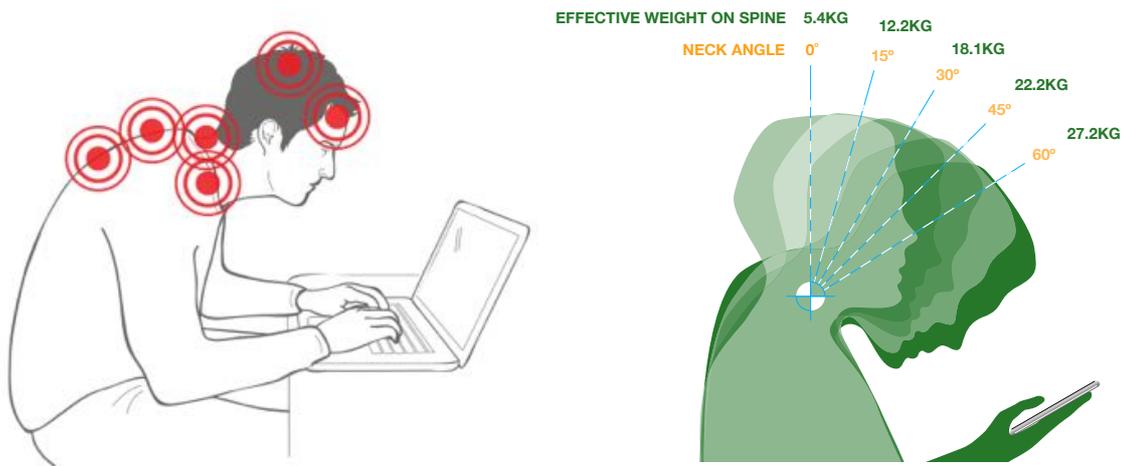
+ (4) STRETCH YOUR PECS.

You're probably tight on your pecs as part of it all, so best to stretch them as well. The Backpod's user position - lying on your back with your hands behind your head and your elbows dropping towards the ground - stretches your pectoralis minor muscles. These are your deeper pecs.

The bigger top layer of your pecs is called the pectoralis major. There's a good stretching video for this on YouTube, called 'Third video on stretching for costochondritis.' - the link is <https://www.youtube.com/watch?v=EfVKRKhYVEA&t=1s> Heather Green shows a simple relaxed way of stretching both layers of your pecs through a doorway. (There are other ways though, so if you're already familiar with another pec stretch then just use that.) You can start into stretching your pecs even while the rib joints round the back are still tight.

(Note that the video assumes just stretching on its own is enough to fix costochondritis, which isn't correct. However the stretches shown are sensible and good, and are fine in combination with a Backpod to specifically free the rib joints round the back.)

+ (5) THE IHUNCH. ALSO CALLED TEXT NECK, COMPUTER NECK, HEAD FORWARD POSTURE, ACCENTUATED THORACIC KYPHOSIS, UPPER-CROSSED SYNDROME, ETC.



The commonest reason these days for costochondritis starting is if you're getting a bit hunched, usually from much bending over laptops, tablets, smartphones, patients, bench work or whatever - we call it the iHunch. It is now the biggest upper spinal problem in the computer-savvy world.

As part of the spine getting a bit hunched and tight, the rib joints attaching to your spine also stiffen and seize. When they can't move, then the joints at the other ends of the same ribs MUST work excessively just to let you keep breathing. So they strain, 'give', irritate, get locally inflamed - and welcome to costo. It's not a "mysterious inflammation" arriving for no reason.

Have a look at the iHunch page on the Backpod's New Zealand website - <https://www.bodystance.co.nz/en/ihunch/> If that looks like a fit with you, then do ALL the bits in the Backpod's simple home programme - we designed it specifically to counter the iHunch and pull you back towards perfect posture. It's in the Backpod's 31-page full user guide, and also as videos on the iHunch page. It's worth looking at the Perfect Posture page also.

(It can be too sore on your costo to do the strengthening exercise where you lie on your front. If so, just start by kneeling on all fours, hold a weight in one hand, then bring that straight arm up to horizontal beside your torso. Same slow timing and hand weights as the standard exercise.)

You can also reduce the hunching load on your neck in some very simple ways:

(1) Use a desktop computer wherever possible. Set this up so the centre of the screen is roughly at your eye level, and the keyboard is roughly at your elbow level. This isn't difficult - just use layers of books, chair height adjustment or whatever to get the heights roughly correct. It's just to keep your back and neck reasonably erect and balanced while you're working. This position doesn't strain and tighten the spine and ribs like hunching over a laptop, tablet or phone does.

(2) If you're using a laptop heaps in the one position, get an extra screen or extra keyboard so you can set it up like the desktop computer just described.

(3) Every hour, stand up, stretch your back and neck backwards for a few seconds, roll your shoulders around for another few seconds, plus do the upper trapezius stretch to both sides for about 10 seconds each. This isn't difficult! The stretch is shown in the user guide, and also in this YouTube video on our iHunch page: <https://www.youtube.com/watch?v=2CARP4EvXR8>

+ (6) SPECIFIC SELF MASSAGE ROUND THE RIB JOINTS ON YOUR BREASTBONE.

You may need this specific bit of treatment as well. Not everyone does. It's usually more necessary if you've got obvious swelling around the front where your ribs join onto your breastbone (sternum).

Costochondritis can be bad enough that the popping and straining joints where your ribs hinge onto your breastbone can also become swollen. When you can actually see obvious swelling at these joints on the side(s) of your breastbone, then it usually gets called Tietze's Syndrome. Tietze's is just costo with enough swelling at the joints to be noticeable. It's not a whole separate clinical entity different from costochondritis.

The swelling is just intracellular fluid - the same sort of fresh fluid swelling from broken cells that you get if you sprain your ankle. As with a sprained ankle, after a week the fluid swelling sets hard. This is just the normal inflammatory response of strained joints - there's no auto-immune or systemic inflammatory component. It's a normal repair process, with fibrin in the fluid acting as a slow-setting glue to hold everything together while the torn fibres and cells are repairing. So it's a normal part of healing after an injury.

But with costo and Tietze's, the irritation and strain can continue for months or years - with every breath you take and move you make. So you can get a rock-like build-up of this stuff, often with a bit of fresh swelling on top. It's a bit like walking with tight boots causing a blister and NEVER STOPPING for months or years. As long as the rib hinges round the back can't move, then the rib joints on your breastbone must keep straining. That's what costo IS.

So you often get some hardened swelling there where the ribs join onto the breastbone. This doesn't just interfere with the normal free glide of the rib hinges, it also binds down the free nerve endings and receptors, tethering them and making them hypersensitive. If you've had thoracic surgery, especially if it was a spinal split operation, you'll have surgical scarring tying things down even more.

Break it down. This is like working hard putty or play dough or cold pastry dough until it becomes malleable. You can do this yourself at home.

Use something to let your fingers slide. Massage wax is better than oil - oil dribbles. Spend about 10-15 minutes every three or four days working your fingers through the hardened bits in all directions. Start gently - it'll get easier as you continue. It will be tender and probably sore - it gets easier as it frees up. The first time is the worst. Just do what it feels like it can handle, and expect to feel it a bit tender afterwards, especially to touch. You won't weaken the scarring round the joints or any surgical scar, just make it flexible and not pulling on the nerves.

Ideally, when you've finished a massage session, work in something that will reduce the irritation from working these sensitive bits around. The best seems to be a menthol cream like BioFreeze, or a CBD cream like Penetrex, though Voltaren (diclofenac) anti-inflammatory gel often works. These are usually available on Amazon or from a pharmacist.

It takes time - probably a few or several weeks. But it's easy enough to do. It's the main answer to this specific bit of the problem. But just done on its own the costo will keep coming back, unless you sort out the tight ribs round the back driving it - which you're doing.

+ (7) CHIROPRACTORS, OSTEOPATHS AND PHYSIOTHERAPISTS (PHYSICAL THERAPISTS) - DO I NEED ONE?

If the rib joints around your back are really tight, they may need unlocking with manipulation. Usually, this isn't actually necessary - the Backpod can stretch most tight joints free on its own. In any case, you still need the Backpod to stretch out the very tough shortened collagen around the joints, so they can stay moving freely and not just tighten up again fast - manipulation alone can't do this.

Nothing beats good experienced hands-on assessment and treatment personally tailored to your particular body and problem. But finding someone who's actually any good at this is a real lottery and I've almost given up. This treatment plan is what we've found works best, worldwide - based on over 10,000 communications I've had with costo patients worldwide over the last several years.

So, if your improvement on this treatment plan isn't complete, THEN see a chiro, osteo or physio (PT). But don't stop thinking for yourself. YOU can tell whether what they do is actually helping you or not. Regardless of their particular treatment training, individual practitioners vary. Some are superb and caring; some are an expensive waste of your time. Look for ones who will listen. Usually older and more experienced means they're better - but not always.

Here's my experience with them:

CHIROS: The good ones are very good, but the traditional US Palmer chiros mostly seem really poor at treating costo. (The ones outside the US seem to be better, generally.)

(1) They usually use the standard body-slam-onto-the-patient-with-their-fist-in-your-back technique. This is usually an unthinking poor choice with costo, because it just squashes and strains further the already strained rib joints on your breastbone. Every time.

(2) In my experience, they have a bias towards manipulating the spinal joints and (often) missing the rib joints - and freeing these up is the irreducible core of fixing most costo.

(3) All manipulation does is bang a tight hinge free. It doesn't put anything at all "back in" or "in alignment" - those are just nonsense phrases meaning nothing. I'm speaking as a very experienced New Zealand physio. I've used manipulation myself - where appropriate - on my patients for over 30 years. It cannot in a split second stretch out the very tough collagen of the ligaments and joint capsule which will have stiffened down around an immobile joint. So this tightened collagen just freezes the hinge up again rapidly.

That's exactly why we developed the Backpod - to stretch out the collagen so the joints can stay free and you get a lasting improvement. We think the traditional chiro approach of continually banging the same bits free is silly, limited and expensive.

OSTEOS: These are usually the best choice to help unlock the rib and spinal joints, if that's needed. Their manipulation techniques are more gentle and precise than the chiro ones. As a New Zealand physio I was taught mostly osteopathic manipulation, though we have a whole range of home-grown techniques for the spine and ribs too. Some osteos can be a bit flakey.

PHYSIOS (PTs): I am one, in New Zealand. We vary - just like doctors and hairdressers. Often physios will just give you a whole lot of exercises and stretches aimed at freeing up your rib cage and thoracic spine, and strengthening the muscles around it. On its own, this approach usually flares the costo right up.

The reason is that any general exercise or stretch just strains further the already strained rib joints on your breastbone, way before you get a benefit to the tight rib machinery around the back.

There are YouTube videos around saying you can fix costo just by exercises - they don't understand the problem. The stretch-and-strengthen approach isn't wrong of itself, but you have to free up the frozen rib joints FIRST. Hence the Backpod.

Manual physios or PTs who have extra training in hands-on techniques are much better for treating costo than the purely exercise prescription types. They have a range of specific techniques for freeing up tight rib and spinal movement around the back, not just manipulation.

+ (8) IF THERE IS A BURNING CHARACTER TO YOUR CHRONIC COSTO PAIN.

This is also an optional extra. It doesn't apply to all costo. It's called a wound-up or fired-up nervous pathway.

It's not just from costo - you can get it from any chronic problem with pain. The pathways in your nerves and brain carrying the pain signals from your costo get really good at it. So they can keep doing that, even when the original problem is much better or even completely fixed.

It's a bit like learning a skill - the pathways get well established in your nerves and brain, like a well-trodden path. This is the same thing, only with pain. It's why often just light touch is still painful. You usually get a burning quality to the pain.

Okay, so what to do about it? The standard medical approach is very low dose tricyclic antidepressants, such as amitriptyline or nortriptyline 10mg before sleeping. This is NOT because you're depressed, but in very low doses like this they slowly desensitise the fired-up nervous pathways. This usually takes about three months. Those would come from your doctor. I find they work slowly but well once the ongoing mechanical reasons for the pain being there have been sorted out. They are not a cure for costo on their own.

As well, or instead, I find acupuncture can do the same thing and often faster. People vary in how they respond to acupuncture, but usually I find if I've sorted out the mechanical basis of a chronic problem, then a session or two with acupuncture will clear the residual hypersensitivity pain that can be left over. There are a lot of different brands of acupuncture though, and I'm a bit confused as to what all is out there. Physios in New Zealand tend to use a medical variety, but you get all sorts. As with the amitripts, I don't find acupuncture just on its own works as a cure for costo.

Lastly - time. I hate to say it, but it can still simply take a while for the nerves to stop jangling - maybe a few months. But that's only after you've sorted out the frozen rib machinery around the back which is causing the strain and pain at the rib joints on your breastbone.

+ (9) ANTI-INFLAMMATORY DIET; VITAMIN D SUPPLEMENTS, REMOVING GLUTEN FROM YOUR DIET IF YOU'RE COELIAC OR WHEAT INTOLERANT, TURMERIC, ETC., ETC.

All these things can help a bit. But I want to be very clear - low vitamin D on its own does NOT cause costo. Gluten intolerance on its own does NOT cause costo. An inflammatory junk food diet just by itself does NOT cause costo.

Of course they don't. Think about it - why on Earth would generally low vitamin D (say) in your whole body system cause such a specific pain or inflammation as costo, just at some of the rib joints on your sternum and nowhere else in your body?

I don't care what you've read or been told - it doesn't make sense, and there is no good medical evidence supporting it. Therefore just taking vitamin D, avoiding gluten or switching to a healthy diet is NOT going to fix your costo - on its own. Neither is just taking any other medication, additive, supplement or dubious substance - on its own.

BUT - it can help. I'd say about 10% or even as much as 20%. The irreducible core of fixing costo is freeing up the frozen rib machinery around the back that causes the strain and pain at the joints of the same ribs where they hinge onto your breastbone. But beyond that, correcting for low Vitamin D by taking supplements, stopping wheat, avoiding junk food, alcohol, coffee, etc. can certainly help. These aren't the full cure, but they help your system deal with pain and inflammation much better. Try adding them in and see - they aren't difficult.

There's a sensible overview of what foods cause inflammation by Katherine George on Active Beat, a health and wellness website - link is <https://www.activebeat.com/diet-nutrition/the-top-8-inflammatory-foods/?fbclid=IwAR0QnQYPDYVAwXUxvZ-R8XhpLDGXT-hgaIF2E2IZQHbsKPyNzhU6RHVsONg>

As well, you'll find unending suggestions of things to help costo on the net - turmeric, Valerian root, Omega-3, Olbas oil, hot packs, cold packs, CBD oil, magnesium, etc., etc. They're often presented very forcefully as OF COURSE this is what you need to fix costo. However none of them has ever been medically tested to see if it actually does. Some of these may indeed give some help, but none of them on their own will fix costo.

It's exactly the same with medications from a doctor. They can help dampen the pain while you're taking them, but on their own they do not fix or indeed actually treat the underlying problem itself. There is NO medical research on whether anti-inflammatories or steroid shots actually help costo.

Anyone who thinks they will does not understand the problem. Costo is essentially a mechanical problem - like a hand brake jammed on in the car. You don't fix it by putting additives in the petrol.

There is a lot of wishful thinking involved - if I can just find the correct med or supplement or potion it'll fix my costo without effort and I can get on with my life. Sorry - costo doesn't work like that. The Costochondritis Fairy is not going to descend to your lawn, flanked by the Choir Invisibile, and offer you the Miracle Cure for costo on a golden cushion. You need to put the effort in yourself - to understand your costo and therefore what's needed to fix it; and then do it.

+ (10) START BACK INTO EXERCISE VERY QUIETLY AND CAUTIOUSLY.

Even once you've got yourself pain free from the costo, you can't start straight back into sport or exercise or work at the same level you were at when it stopped you.

Once the rib and spinal machinery around the back has freed up reasonably, you do want support strength for the area. This means the rhomboid muscles between your shoulder blades, middle and lower trapezius, lats, and your spinal extensors. It's all the middle and lower musculature round the back of your rib cage and spine.

Start in quietly. You can't jump straight back in at the same levels you were at in the gym, pool or track before the costo stopped you. The usual physio guideline is to start back in at half of that, and build it up cautiously, going only every second day for the first few weeks to let things recover.

The simplest, gentlest way back into exercise again is **walking**. Do a session on the Backpod first, followed by the twist exercise referred to in Section (2). This is to get the rib cage machinery warmed up and moving before you start loading it. Then walk - breathing deeply and fully as you

warm up. Try and get the air deep into the bottom of your lungs with each long slow breath. Swing your arms. You'll have lost fitness anyway, so walking is a good way to start building cardiovascular fitness back again, slowly. It takes time. Start with what's easy, then build up by five minutes each time you go out. Have a day off in between, if you need it.

GETTING BACK INTO THE GYM.

After you've built up walking with deep breaths and arm swinging to at least 30 minutes with no problems, you can try the gym again. I find a good way back into stronger exercise is on the **cross trainer (elliptical machine)**. This does a reasonable rotatory workout for your torso and rib cage, but gently and in the upright position. So it's good for the spine and cardio and doesn't usually flare costo. Start with just 5 minutes and add another 5 minutes more each time, with a day off in between. When you get to 30 minutes with no problems, then start back into weights as well.

You can start back in with **light weights and/or the cable machine**. Best is to do straight line exercises to start with, i.e. directly facing the cable machine. Don't add in rotation with weights or cables until you've been a few weeks with no problems on the straight line exercises. If that's all working out okay, you can cautiously add in rotation strengthen on the cable machine.

You can do good work with **dumbbells**. Start kneeling on all fours, torso horizontal. Pull up a dumbbell vertically from the floor with one hand to work the rhomboids and middle traps. As well, with a lesser weight, lift your straight arm back and up to horizontal (or a bit higher) beside your torso to work the lats and lower traps.

Don't start doing **bench presses** until rotatory exercises on the cable machine are okay - bench press is the second worst gym exercise for triggering costo. **Dips are way the worst** - don't even think about them for six months, and maybe not then. They trigger way more costo than anything else in the gym. They put a huge load on all the rib cage joints, and if the ones round the back can't move, then the ones on your chest 'give' instead - like spraining your ankle.

There's a very good YouTube video called 'How To Fix Chest Pain From Dips - the link is https://www.youtube.com/results?search_query=dips+costochondritis It's excellent on correct technique, but does assume - like most gym training videos - that you can sort out your costo just by correct training. You can't. You HAVE to free up the frozen rib machinery around the back FIRST, otherwise everything you do will just strain further the already strained rib joints on your breastbone (sternum). Hence the need for the Backpod.

Don't even think about dips again until you can lie back on the Backpod with no pillow under your head and just feel a satisfying stretch - no pain. This means the rib joints around the back are now moving pretty well again. You're still safer to leave off doing dips for another few months past this point.

You can use the cross trainer (elliptical) for a cardio warm-up, even when you're back to doing weights. Also simply stretch your pecs before you start, and do a session on the Backpod - so the rib machinery is moving well before you start stressing it at the gym. You could use the Backpod at home or work before going to the gym. Or take it to the gym. Or talk the gym into getting one.

Best of luck with the work. Of course it's not a mystery and of course it's fixable.

Cheers,

Steve August (B.A.,Dip.Physio.).

New Zealand; 19 July 2022.



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DISCLAIMER:

Of course I haven't seen or assessed you in person as a patient. The advice and explanations in this treatment guide are based on the existing published medical research, my over 30 years of treating spines and costochondritis as a manual physiotherapist in New Zealand, and over 10,000 discussions with costo patients worldwide in the last several years. It's what we find actually fixes most costo. Lord knows this is needed.

However, it's up to you to put the work in, read clearly what's written and watch the videos, understand what's going on and what's needed, and sensibly apply it to your own problem.

I assume you have already had your chest pain checked out in detail by the doctors - this is always the first step. If you haven't, then you should. Read the contraindications in the Backpod's user guide, especially the one on osteoporosis. If any problems following the treatment plan, stop and check with your doctor. However do see section (2) re reasonable treatment tenderness.

This treatment plan, including use of the Backpod, is probably the most useful detailed information you'll come across on how to fix your own costochondritis. It's a professional explanation and approach from a very experienced New Zealand physiotherapist, and my remarks about other health professionals are also fair comment.

But it is entirely at your own risk, and I and the other directors of Bodystance Ltd. and the Backpod company accept no liability for any problems arising thereof.

Steve August (B.A.,Dip.Physio.); New Zealand.

19 July 2022

The existing, published medical research shows clearly that costochondritis is NOT a “mysterious inflammation.”

● This term for the problem started being used in the 1960s - for no reason justified by the research evidence. The ‘-itis’ ending does mean ‘inflammation’, so busy, caring doctors treat it like one. Usually this doesn’t work.

● **Costochondritis is caused by lack of movement at the joints round the back where your ribs hinge onto your spine.** That’s why you usually also get a duller pain round the back, under your shoulder blade(s).

When these joints can’t move, the joints where the same ribs hinge onto your breastbone HAVE to move excessively - every breath you take. So these more delicate rib joints strain, ‘give’ (**with clicking and popping and often a sharp stabbing pain**), get very painful - and welcome to costochondritis.

If there’s enough local swelling at the straining rib joints (same as you get if you sprain your ankle) then it’s called Tietze’s Syndrome.

● **Yes, it’s scary.** Chest pain could be the heart, though mostly it isn’t. Yes, you need to be checked medically. Doctors are really good at that - they’re just usually not good at costo. No, it usually doesn’t “just settle down soon.”

● **You often get breathless**, even though your lungs are fine. The same frozen rib machinery round the back that causes the costochondritis rib joint strain at your front also means you can’t expand your rib cage fully. This means you can’t take a full breath in. So you breathe high and fast, and this hyperventilation pushes towards panic attacks and anxiety. It’s perfectly reasonable to be concerned about a mysterious chest pain that the doctors don’t seem to understand or fix.



So fix it yourself. It’s a straightforward mechanical problem - logical and not mysterious and not particularly difficult.

● **You fix costochondritis by freeing up the tight rib and spinal joints around the back which cause the rib joint strain and pain on your breastbone.** This view is fully supported by the best medical research evidence but mostly hasn’t flowed through to the popular medical understanding of costochondritis. All treatments (including medical ones) solely for the pain on the front or for a general inflammation miss the point and usually don’t work.

● **The small peaked shape of the Backpod** is specifically designed to stretch out the frozen, immobile rib joints round the back - at home. You can unlock these joints with manipulation, but it doesn’t last because it cannot also stretch the tightened tough collagen material around the joints. The Backpod can - it’s exactly what it’s for.

● **For much more detail** on costochondritis, Tietze’s Syndrome, Slipping Ribs Syndrome, the home test for tight ribs, the published medical research, detailed treatment, pdfs and YouTube videos see the ‘Costochondritis’ page of the Backpod’s website **backpod.co.nz**

The Backpod



reddot design award
honourable mention 2013



Best Design Awards
Winner 2012

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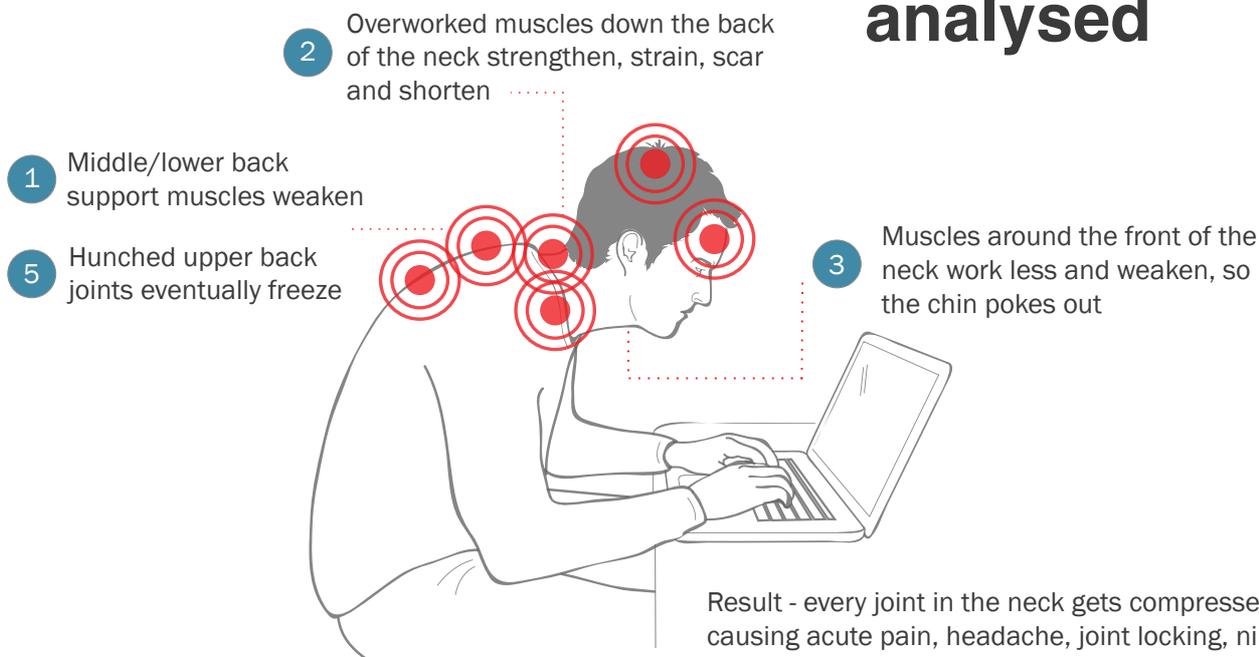


MEDICAL 2019

Bodystance®

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The iHunch analysed



The logical response: a simple home programme plus the Backpod.

- 1 One home exercise to strengthen the support muscles of the middle back (middle and lower trapezius, rhomboids etc.) - takes 4 - 5 minutes.
- 2 Two simple home massages for upper trapezius muscle scarring.
- 3 One home exercise to strengthen the muscles which keep the chin held in (longus coli and other deep neck flexors) - takes 1 - 2 minutes.
- 4 Very simple posture instruction using the strengthened muscles.
- 5 Use the Backpod to stretch out the very tough, tightened collagen around a hunched thoracic spine. This is essential because otherwise it will just freeze up the joints again, even if they've been unlocked. Collagen responds best to a strong specific sustained passive stretch - which is exactly what the Backpod provides. No hands-on treatment (including chiropractic manipulation) does this, so therapist results are often only short-lived. The Backpod allows a lasting improvement.

It's this collection that works. Most treatment approaches cover only one aspect. The Backpod and its programme will aid and augment all therapeutic treatment approaches. The simple minimalist programme is in the Backpod's 32-page user guide and is also available free to all as videos on the Backpod website

www.backpod.co.nz

Why just using a smartphone, tablet or laptop is such a problem for the neck.

Bending forward requires the muscles down the back of the neck (especially the upper trapezius) to work several times harder than when the head is upright. In 2013, the average U.K. 18-24 year-old spent 8.83 hours a day hunched over laptops, tablets and smartphones like this. Unsurprisingly, the muscles will often strain.

The body's repair of torn muscle cells involves scarring (adhesive fibrosis) - which is non-elastic. That's why the Backpod's programme includes simple massage - to break up binding scarring fibres and so restore the muscle to its normal healthy flexibility.

Source: Dr Kenneth Hansraj: 'Assessment of Stresses in the Cervical Spine Caused by Posture and Position of the Head', Surgical Technology international XXV (2014).

Why the need for the Backpod?

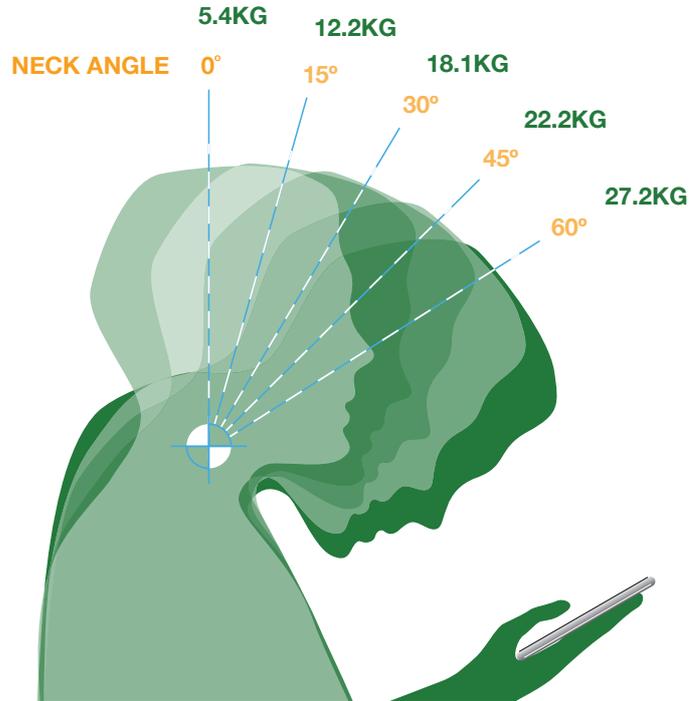
When a hunched spine has frozen tightly enough, personal exercises alone (including yoga, Pilates and gym strengthening) cannot free it. It's a matter of leverage - you HAVE to use an external force. That's why people visit physios, osteopaths and chiropractors.

But the improvement from unlocking the joints is often only temporary because the shortened collagen around them just freezes them up again. So you have to stretch this to get an improvement that lasts.

Collagen makes up the ligaments, fascia, capsules, etc. which hold the spine together; muscles just move it around. It's immensely tough stuff - stronger, kilogram for kilogram, than steel wire. You can stretch it, but you need a strong specific passive stretch sustained for more than a minute.

The Backpod is designed specifically to provide this. Lying back on it uses a person's upper body weight to give enough leverage to actually stretch the collagen of a chronically hunched upper back.

EFFECTIVE WEIGHT ON SPINE



Rolled towels, tennis balls and Swiss balls are too squashy to give enough leverage. Foam rollers are unstable (which means the muscles don't relax), too high, and cannot get the ribs because of their cylindrical shape. Tight rib joints are part of the iHunch problem; also of chronic asthma; and cause most costochondritis. The peaked shape of the Backpod is ideal for freeing them.

The Backpod comprises an unyielding polycarbonate core shaped for the spine with a cushioning outer. It is so strong we've driven a Jeep Cherokee over it. The gentler curve of the long axis gives a milder stretch on the spine; the tighter transverse curve gives a stronger one.

The Backpod has won several New Zealand and international awards, including one of the invitation-only top German design awards. More information and images, including ordering details, on www.backpod.co.nz

The Backpod  Find us on facebook.



reddot design award
honourable mention 2013



Best Design Awards
Winner 2013

FINALIST
NEW ZEALAND
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