

the Life Clinic

Daily Spine Fit

introduction



Back pain is serious. Besides the obvious pain and discomfort, back pain is potentially a significant detriment to your life. Your work life, your play life, and most importantly - your family life. Back pain is costly. It is expensive to take time off work, not to mention the cost of intensive healthcare. Further, it may limit your ability to perform at your best and advance in your chosen career. Potentially, it could cost you all of the above.



Back pain is the most common human ailment. Every two years the Gates Foundation release a report of the most common health complaints collected from health databases around the world (called the Global Burden of Disease report*). Low back pain is consistently reported as the most common condition. Interestingly, low back pain is not just a scourge on western communities that are chained to office chairs, driver seats, and sofas, but is present across all cultures – from cities to rural areas and North America to Central Africa. Put simply, back pain appears to be the most common ailment in humans everywhere.

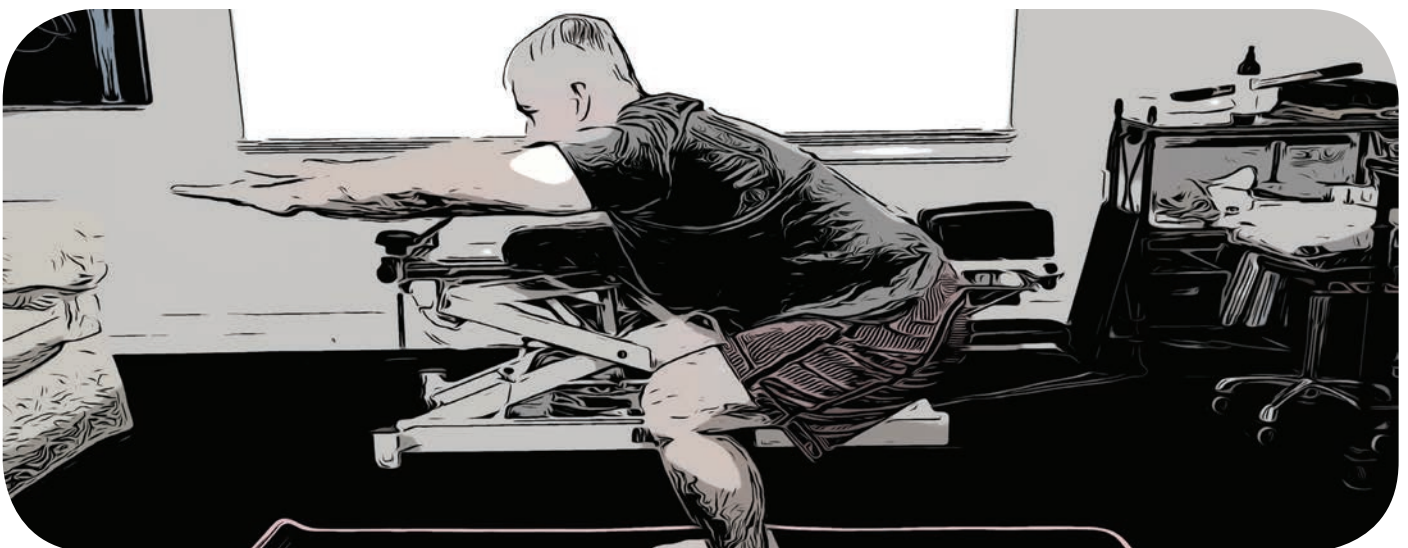
That's the bad news. The great news is you have a dynamic, self-healing body, that responds to healthy habits as much as it responds to poor ones. Improve the healthy ones and you will feel better, perform better, and save money.

*search: www.healthdata.org/gbd

This book is an introduction to “Daily Spine Fit”, a series of exercises designed to help you control pain and enjoy healthy active living. The exercises are low in intensity (unlikely to cause sweating) and easy to implement as a healthy habit into your normal daily routine.

The goal of Daily Spine Fit is to help you achieve a strong, healthy spine using an achievable strategy. It can be likened to brushing your teeth to maintain oral health. Just like flossing and brushing, an important component of the Daily Spine Fit series is that it is done regularly (daily). I believe that the application of a healthy physical habit increases the likelihood you will maintain mobility through the later years of your life - just like brushing your teeth improves the longevity of your teeth. Application of the Daily Spine Fit series will help you feel better quickly - consistency will help you maintain your improvements over time.

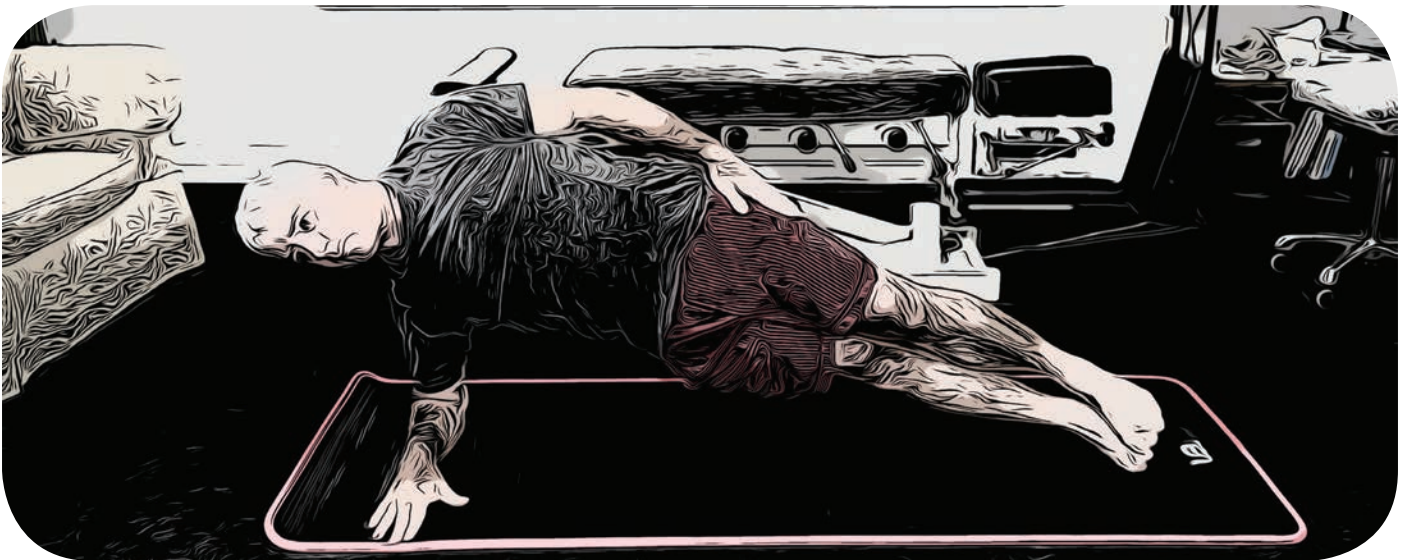
Daily Spine Fit does not guarantee zero back pain. We are all capable of overdoing it in the garden, or being too enthusiastic playing sports, or irritating spinal nerves by sitting around doing nothing. What the Daily Spine Fit series can achieve is a stronger spinal foundation, from which, you can participate in more intense activity and to have better recovery from strains, sprains, and accidents.



What is Daily Spine Fit?

Daily Spine Fit is a series of low intensity exercises that are easily achieved and implemented regularly (daily) through a normal working week. The series has been developed to improve and maintain mobility, symmetry, and stability. For example, the series includes exercises that “switch-on” your core musculature which helps straighten your posture, lift your energy, and provides stability for all your movements. All exercises are coupled with breath and you can move as fast or slow as you like.

The key to your success is consistency so the best approach is to do the exercises often, gently, and without an ego agenda. There is no benefit in aggressively trying to push or pull joints past their outer limits, nor will you benefit by fatiguing muscles through holding side planks until you collapse. Be consistent and kind to yourself and you will achieve great results.



The Three Pillars of Spinal Health

Your spine is a dynamic structure comprised of multiple bones, joints, muscles, and fascia. Imbalance to your spinal foundations often leads to a cascade of compensations that, ultimately, irritates nerves and causes pain. Due to the sensitive nature of spinal nerves this may express itself as a sharp pain that travels down one leg (e.g. classic sciatic nerve pain) or as a deep ache felt across a broad region of the spine (e.g. non-specific low back pain). Sometimes these symptoms resolve on their own, however without a plan to correct the cause of the problem (i.e. imbalances) previous irritations and pain occur leaving you back at square one.



The biomechanics of spinal function are complicated and there are thousands of possible causes of spinal pain. Thankfully, you don't need to be an expert in either spinal mechanics or pain management to have a healthy happy spine. For most people, you simply need to apply good healthy habits that maintain the foundations of spinal function. These foundations are; mobility, stability, and symmetry. Often, the cause of low back pain, headaches, or achy spinal joints is due to a loss of one, two, or all three foundations. For example, active sports people, gym goers, and workers with physical jobs have good strength and mobility however a loss of symmetry in the joints or muscles often is the cause of spinal aches and pains.

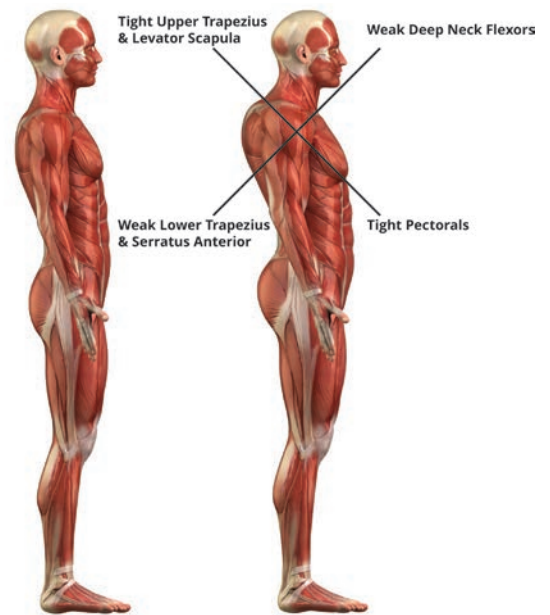


Further, the loss of joint symmetry causing pain may be located on the opposite side or on joints further up or down from the painful area. For example, low back pain is nearly always due to a loss of symmetry that irritates the facet joints and/or discs of the lower back.

You can rest or get treatment on the painful area however without addressing the cause (i.e. loss of symmetry) the joints and disc is likely to be overloaded and become painful at an inconvenient time in the future. In some cases, the loss of symmetry is due to old injuries in lower limbs or repetitive movements that are not rebalanced through corrective exercises.

Poor posture is another example of a loss of symmetry where loss of posture is an example of a loss of symmetry between the front and back of the body.

Loss of symmetry often leads to overloading spinal joints and is a common cause of neck and low back pain. As described previously, overloading may occur with repetitive movements however it may also occur due to prolonged stationary positions such as sitting on the couch or standing at the kitchen bench. Often overloading occurs without any warning signs until the inevitable straw breaks the camels back with painful consequences. Maintaining symmetry, switching on muscles, and keeping mobile will help avoid problems from overloaded joints.



Regular application of the Daily Spine Fit series will help improve the mobility, stability, and symmetry of muscles, fascia, and joints that develop and maintain a strong healthy spine for now and through your life. The goal of the series is to help you enjoy an active healthy life, to succeed at work, and to enjoy precious time with family and friends.

Here are the foundations required to achieve this goal.

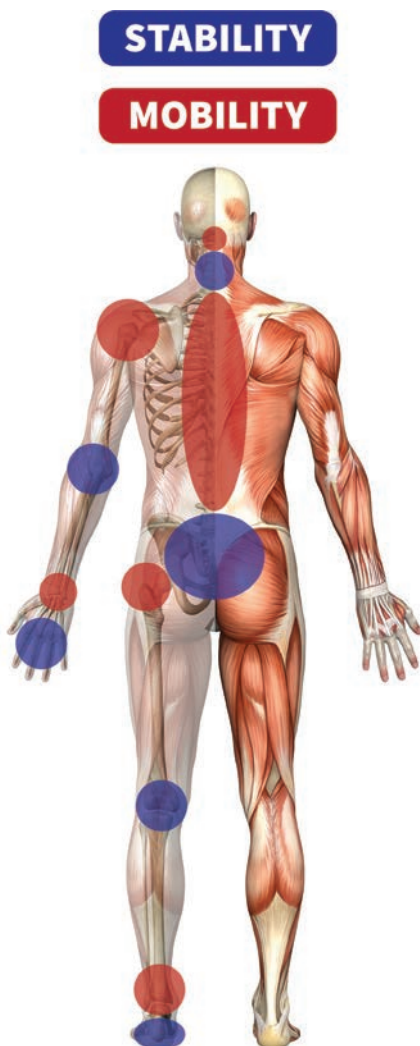
Mobility

Mobility refers to the ability to move with ease through your normal daily life activities, such as the physical requirements of your work, or the chores of maintaining your home. It is important to note that mobility is not flexibility - you don't need to be an Olympic Gymnast to have a healthy spine – but rather a range of movement through all participating joints required to achieve normal daily life activities. Maintaining mobility through your lifetime may be considered your ultimate physical health goal. The inevitable aging process involves the slowing down of replacing naturally dying old cells with new cells. Most of us feel this as a slower rate of recovery after exercise compared to previous years. It remains vital to maintain mobility to enjoy a healthy life, and additionally, mobility allows a greater freedom to participate in activities with friends and family.



People with physical lives and/or work places often have better mobility than sedentary workers such as office workers or truck drivers, however both groups experience spinal pain symptoms. Our approach is to recognise that each group faces different challenges and require different strategies to successfully manage their individual environment. For example, sedentary workers need to introduce more movement (mobility) into their daily routine whilst the physical worker requires movements that mitigate repetitive strains or overuse injuries due to reduced mobility in one or more joints.

Daily Spine Fit aims to improve your bodies ability to move (mobility) through exercises that allow mobile joints to be mobile and stable joints to have stability. This is achieved through by a combination of both opening joints and switching on muscles.



Functional anatomy indicates that every joint in the human body has a primary function of being either a stable or mobile joint. Further, the organisation of joints consists of stable joints flanked on either side by mobile joints – refer picture above. This allows movement to be supported by stability from joints above and below. However, if a joint is required to function not as it is intended compensation or overloading is likely to cause pain. For example, hips are very mobile joints (few joints can do circles like hips can) and lose their mobility due to sitting. Consequently, tight hips cause an extra workload on the discs of the lower back (i.e. overloading) and cause low back pain. Stretching your lower back will help however if you don't address the tightness in your hips it is unlikely your pain will resolve. Further, the loss of hip mobility may

come from injuries to the knee or ankle on the same or opposite side. This makes the diagnosis of low back pain complicated and illustrates why seeing a health professional is an important part of physical health. In the majority of circumstances it is important to improve mobility (and symmetry) first before strengthening joints for stability.

Stability

Stability is the foundation upon which all movement occurs. Spinal stability is mostly achieved through having active and strong core muscles. Core strength involves muscles around the abdomen and the pelvis. Daily Spine Fit includes essential core exercises that help stabilise spinal function.

Sitting represents the greatest challenge to spinal stability. Not only does sitting cause shortening of muscles and fascia, it also switches off the nerves that make these muscles work. Regular stimulus of these vital muscles (through Daily Spine Fit exercises) helps provide stability through your working day by both strengthening your core and maintaining the nerve connection to them that switches them on.

The core exercises prescribed in our series is based on the research by Stuart McGill who developed abdominal and pelvic exercises that focussed on holding positions for longer whilst maintaining the



essential curvature of the spine. Maintaining your lumbar lordosis (lower back curvature) for a period of 10 breaths (or 60sec) develops the small intrinsic muscles that provide stability. Holding exercises for ten long breaths helps develop greater endurance through the lower back and reduces the danger of spinal injury due to fatigue at the end of the working day.

I suggest you apply the Daily Spine Fit series in the morning for two reasons. Firstly, when you complete the stability exercises you effectively switch on the core muscles for the rest of the day, and secondly, morning schedules tend to be more consistent than afternoon schedules. Turning on the core muscles and “walking with posture” is a very effective strategy for maintaining spinal stability.

Symmetry

Symmetry refers to the comparative balance of the left and right, and/or front and back joints of the body. If mobility is the amount of movement you have in the joints, symmetry is the comparison of mobility on one side in relation to the other. You may be able to touch your toes (flexion) but if you don't have the same degree of movement bending backwards (extension) your spine is less stable and prone to injury. Symmetry determines the distribution of forces through the body. Ideally, when your foot hits the ground during walking the vibration forces are distributed evenly. However, if there is asymmetry in the kinetic chain (line of force traveling up through the body) greater force is placed on joints not designed to take the extra load and is more likely to fail and cause pain – this is called overloading.

Low back pain is often caused by overloading the discs between the vertebrae in the lower back. However, pain from overloaded discs may be due to a twist in the pelvis which in turn is caused by a loss of symmetry in the mobility of one hip (or knee, or ankle, or foot – insert one or more here). An easy self-assessment is to sit cross-legged on the floor then change the legs over and feel if they are the same – don't panic most people will find less mobility on one



side than the other. Often, I find clients with low back pain presenting with tightness in one or both hips and start the client on hip exercises to aid the spinal treatments in the short and long term. Therefore, to find the cause of low back pain requires assessment of muscles, fascia, and joints above and below the painful area. Assessment from a skilled health professional will help you greatly to identify which joints require more mobility and help you improve your symmetry through treatment.

Regular application of the Daily Spine Fit series allows you to identify your asymmetries and provides you with a solution to achieve better symmetry. In many cases, loss of symmetry is due to poor posture from sitting long periods or by operating machinery predominately on one side of the body. Regular application of the Daily Spine Fit series will help maintain your symmetry and spinal foundation regardless of challenges your workplace may provide.

In summary, spinal health is an important component of your health and well-being and is a significant factor in your ability to be mobile. It is not simply the absence of pain but the ability to work, play, and be your very best. Maintaining your spinal health will greatly enhance your ability to maintain mobility in your later years thereby adding life to your years and years to your life. Daily Spine Fit is not a fix all but a healthy habit – much like brushing your teeth. The Daily Spine Fit series is a low intensity set of exercises designed to be completed regularly and does not replace other healthy habits (rather it enhances them), and further, spinal health requires good body habits such as diet and hydration. Finally, the Daily Spine Fit series is designed to enhance all three foundations of your spinal function, being mobility, stability, and symmetry.

I hope you try it. I hope you get tremendous benefit from it. I hope you have a smile on your face as you complete the series each morning.

Hi There, I'm Dr Matt Short – Chiropractor.

Recently, I travelled directly to Europe from my home in New Zealand. It's about 35 hours of sitting on a plane and in airports. By the time I got to my destination my spine was very tight and I was fearful it would become very painful. Well, it didn't. After a hot shower and doing the set of exercises prescribed in the Daily Spine Fit series I felt as good as new. Thankfully this allowed me to fully concentrate and participate on the golf seminar and international fascia conference I travelled so far to participate in. I credit my great recovery down to not just doing the exercises then but doing them regularly over the previous 12 months as a health habit. This experience triggered the birth of the Daily Spine Fit series (November, 2018).

Just to be clear, the Daily Spine Fit series is not a guarantee that you won't get spinal pain, it just helps to effectively avoid it more often and recover more quickly. The greatest reward is having more energy, more comfort, and greater performance at work and play. I still believe you need a health professional to help you maintain your spinal balance (as you can't "self-assess" yourself accurately) and that many other components of health are required for a healthy spine. These include; a healthy diet, hydration, a sense of purpose, love and support, and rejuvenating sleep.

Additionally, it is vital you maintain mobility throughout your lifetime. The Daily Spine Fit series is a healthy habit that will aid you in this area of your life. It is not to replace your regular exercise habits such as; walking, sports, gym sessions, or other healthy activities, rather the Daily Spine Fit series will compliment these activities. I believe that any habit that helps you maintain mobility is a tremendous asset to your life and well worth the effort and investment of time and money.

Finally, I hope you try it for at least four weeks. Sometimes results occur quickly whilst some will notice only small gains. Give the Daily Spine Fit series a go, develop a healthy habit, and notice the improved posture, ease of movement, and happier mood it brings.

*Good luck and remember,
"here's what to do, the rest is up to you."
Matt*



About Dr Matt Short – Chiropractor

Matt has been in practice for two decades helping people with their presenting complaints and educating them how to manage their own spinal health. Fifteen years after graduating from Auckland University (Physiology) and the New Zealand School of Chiropractic, Matt completed post-graduate papers culminating in a Masters degree (MSc) in musculoskeletal management (Pending). Combining many years of Yoga practice whilst being involved in sports as a player and coach, Matt believes in the essential value of being active for health. The Daily Spine Fit series is his first publication of self-help exercises.

Notable Facts:

- Professional cricketer in England and Holland.
- Graduate of Auckland University – B.Sc (Physiology) 1998.
- Graduate of New Zealand School of Chiropractic – B.Sc (Chiropractic) 1999.
- Graduate of Otago University – PG. Dip Health Sciences (Musculoskeletal Management) 2018.
- Level 1 TPI certified.



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