

A HEALTHY PACE

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Our favourite shoes



HEALTH

FITNESS

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Ryan Poole
MD OF PACE

Welcome

Already a quarter into the year – how did that happen! Welcome to our first edition of A Healthy Pace for 2016. Are you ready to make the inspired changes to your lifestyle? Or perhaps you want to take your performance to the next level. Whatever your health, fitness or lifestyle goals may be – the Team at PACE can help.

Have you or someone you know ever had to make the decision of having surgery for a degenerative condition? Sometimes it is the best course of action – on the other hand you may be well served by a more conservative approach. Our story of two real life examples discusses the outcomes of these two different approaches.

Did you know that the number of prostate cancer diagnosed was the highest of all forms of diagnosed cancers in 2015? (Cancer Australia).

The recent evidence of the benefits of exercise and lifestyle change to help with treatment and recovery of cancer patients continues to make news. Within this issue we discuss the benefits, with particular reference to prostate cancer.

Professor Stephen Hall describes how he uses the exercise intervention to help with many of his patients – this fantastic testimonial of exercise physiology (and directly of the Malvern Team, whom Stephen has been referring his patients to for years) is thoroughly pleasing for all of us here and we are proud to share his views with you. We are also proud to have Dr Bethan Knapp join the team late last year. Dr Knapp is an experienced local practitioner with a keen interest in sports medicine. Have a look at her Q&A to find out a little more.

Need a little extra motivation – or an event to focus on? In this issue we outline various fun runs that are coming up – and also provide a 12 week training program to help you stay on track.

To help you with your active pursuits our resident podiatry team have put together a comprehensive updated list of footwear for both walkers and runners. It's often so confusing with all the options these days – this list makes it easy to choose what's best for you.

If you like keeping up to date with the latest advancements in health related research and best approaches for sustainable activity then head online and connect with us through Facebook, Instagram or Twitter!

Oh, and we've also opened a new clinic in Sandringham so we can better service the Bayside community.

We hope you enjoy this issue, we welcome your feedback and we look forward to seeing you in one of our clinics soon.

PACE - helping build healthy workplaces, communities & people.

Keep well

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The benefits of exercise

By Dr Stephen Hall, Assoc. Prof of Medicine



As a doctor, I am often faced with people who have a combination of local pain, generalised fatigue, a sense of weakness and poor endurance. Exercise remains the key to the long term management of these types of problems.

It is very common with people after significant illness to develop prolonged fatigue. Our grandparents taught us that what we need to do in that situation is rest. We now know that rest is absolutely the worst thing that we could possibly do and the key to managing fatigue, irrespective of the situation, is to maintain and if possible increase our exercise. We know that people who are receiving chemotherapy for cancer often develop fatigue. If we give them an exercise program they will have much less fatigue than other patients receiving the same therapy but not doing exercise. Everything really comes down to the question of quality of life and regular exercise in that situation, incorporating both strengthening and aerobic conditioning improves that quality of life. There is no alternative to exercise for this dimension of our health.

We also have local problems that demand exercise. A very common problem that we see is people who have pain on the side of their hip which particularly troubles them when they lie in bed at night. It will often trouble them when they get up and down stairs, but walking on the flat does not create too much difficulty. This usually means they have a problem of the muscles of the gluteus area and get pain down the leg and the hip. For years doctors have used anti-

inflammatory medication and local cortisone injections to treat this however the problems with these treatments are the variable benefit and potential long term damage issues. Cortisone injections tend to last for only a short time measured usually in days and weeks.

The main issue lies within the muscle structure and without developing strength of the gluteal muscles there really is no way to control this type of problem, which does not tend to get better by itself. It will drag on for years and years and years, unless something is done to fix the mechanical problem, which is the weakness or incorrect movement patterns. Exercise remains the key to addressing the issue, and the type of exercise needs to be focused specifically to an individual person. Doing general exercise such as going for walks or doing housework is not going to be an answer to the problem. The body uses “compensatory movements” to get around problems and we need to address the specific muscles that are a problem if we are going to get people better.

For that we need people who are skilled at the assessment to identify muscle dysfunctions and teach people how to isolate those muscle groups and to develop a specific strengthening program. Then incorporate the strength into functional movements of daily living with minimal discomfort.

This progressive exercise treatment is best implemented by an exercise physiologist, which has proven successful for helping my patients.



Exercise & Prostate Cancer The Evidence Stacks Up

By Sam Buchanan - Senior Exercise Physiologist

The role that regular exercise can have in management and prevention of cancer types is becoming increasingly more widespread, in particular men with prostate cancer.

Prostate cancer is the most common form of cancer among Australian men, with 20,000 new cases diagnosed each year. This form of cancer affects the prostate gland and its most common site of metastasising is into the skeletal system³. Due to this, and like any other form of cancer, early diagnosis and intervention is the key element to survivorship. These days with more specific tests, such as the blood Prostate Specific Androgen test (PSA), cancer specialists are able to earlier diagnose prostate cancer earlier with increased survivorship beyond 10 years and more¹.

One common treatment of prostate cancer is called Androgen Deprivation Therapy (ADT), aimed at reducing hormones such as testosterone which can cause tumour growth and spread². However unfortunately common side effects are common and can include:

- Fatigue
- Weight loss
- Lean muscle loss
- Increased depression and decreased cognitive function
- Increased blood fats and unhealthy cholesterol levels.

Exercise therapy has an enormous ability to reduce the severity of the side effects and have a positive change of the individual's quality of life. Current research show that:

- Men who walked briskly for 90 minutes of more per week increased survivorship by 46% compared to men who walked less quickly and less often.
- Men who exercised vigorously (bike, jogging, swimming) for three or more hours per week increased survivorship by 61%. (Please see your GP for clearance prior to beginning vigorous activity)¹.

- Men who completed resistance exercise 3-4 times per week reduces side effects of Androgen Deprivation Therapy and other chronic illness¹.

The reason for this is that the cancer cell DNA is thought to be “up-regulated” in a sedentary male, leaving the individual at risk of further tumour growth. By completing moderate to vigorous physical activity, the active “up-regulated” DNA will be suppressed and therefore tumour growth and additional spread will be disturbed².

Other outstanding benefits of exercise in prostate cancer management apply to living a normal and healthy life without the worry of additional chronic illness, such as:

- Type 2 diabetes mellitus
- Osteoporosis
- Cardiovascular disease
- Neuropathies
- Weight gain and joint pain

In these terms, exercise will keep the muscle tissue healthy for metabolic health and the reduction of elevated blood sugar levels, weight bearing to reduce bone fractures and exercise for a healthy heart.

So the evidence stacks up and displays that exercise really is one of the best medicines you can be prescribed in your cancer management and prevention. By undertaking regular physical activity, you are increasing the likelihood

of a healthy and happy life away from the burden that can be cancer.

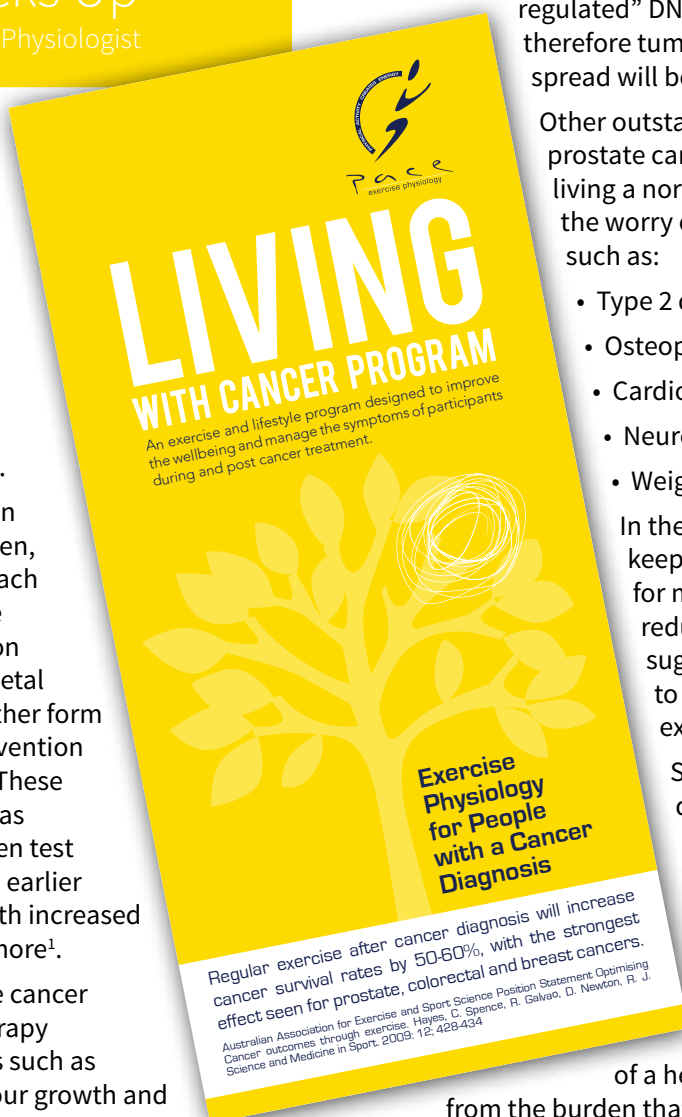
Prior to beginning any exercise therapy, please consult your treating oncologist and GP for clearance to begin.

At PACE Health Management, one of our accredited exercise physiologists can implement a specific exercise treatment plan tailored to your cancer condition; whether this be prior to diagnosis or in your rehabilitative stages.

For more information, please contact info@pacehm.com.au or call 9770 6770. Further information on all clinical programs can be found at **www.pacehm.com.au**

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3. Exercise is Medicine- Prostate Cancer and exercise.



"Overload and Tendinopathy"

Good Sense with SPORTS SENSE PHYSIO

Article: Adam Godfrey
(Dir. Sports Sense Physio)

Its summer again – hot beach weather, long sunny days and sunset drinks with friends. This time of the year also sees us making good on our New Year's resolutions: for many of us that means getting fit, losing those Christmas kilos and perhaps trying that new exercise fad that everyone has been talking about lately!

We boldly enter the gym, take on those spin classes, up for early morning swims, and start pounding the pavement with boundless enthusiasm... You're training harder and more often than you ever have before! Then one day there's pain at the back of your ankle when you start your run but it goes away after a couple of minutes and you think nothing of it. But the pain returns after the run and hangs around longer and longer each time you try to exercise.

Maybe you can't make the 30 laps in the pool today because your shoulder hurts to lift it out of the water. You mightn't have even made it to the pool this morning at all because the pain in your arm has been worsening over the last couple of days after swimming.

After a couple of weeks it's there all the time and now it hurts to just walk around, or take your jumper off as it hots up – those new year's resolutions... you start to question the whole fitness idea!

You may be suffering from TENDINOPATHY.

But what does that mean?

What does a Tendon do?

Tendons attach muscle to bone, channelling strong biomechanical forces to enable powerful movements of the body; hence they have a tremendous tensile strength.

Tendinopathy is a process where some part of a tendon in your body has become damaged. There are a number of reasons and contributing lifestyle factors which influence this process, however in regards to the training athlete or enthusiastic individual chasing better health, the reason is often one of OVERLOAD.

Tendons are designed to withstand repetitive stress and loading, and with appropriate recovery can improve their tensile strength capabilities. Often this process will result in mild inflammation and occasional pain which, when managed well, heals and results in a stronger tendon structure.

OVERLOAD occurs when the damage caused by repetitive strain on the tendon is too great in comparison to the recovery and healing process. This results in a gradual weakening and degeneration of the tendon's structure and in turn its functional strength. At this stage you are suffering from Tendinopathy.

"I've run 3km, every day this week! – but now I have a sore Achilles."

A common complaint heard by physiotherapists from a patient who has placed too much repetitive strain through a specific tendon (Achilles) and has failed to allow appropriate healing to take place between sessions, thus overloading their tendon structure.

Tendons commonly affected by overload include:

- the Achilles tendon of the ankle,
- the rotator cuff tendons of the shoulder,
- the patellar tendon of the knee,
- the common extensor tendon of the elbow.

Common Symptoms of Tendinopathy:

- Pain over the affected area



- Loss of strength (IE/ loss of grip strength in cases of tennis elbow),
- Stiffness: often after activity, upon waking in the morning, or overnight whilst sleeping,
- Swelling or redness over the effected tendon area if significant inflammation is present.

"I think I might have a Tendinopathy!"

Tendinopathy is a complex diagnosis referring to a spectrum of signs and symptoms of varying severity. Different stages of the tendinopathy process often require a combination of varied treatment strategies to achieve a good recovery.

At Sports Sense Physio we can assess your signs and symptoms and ensure your complaint is properly diagnosed. Our physiotherapists will use information about your activity levels, previous injuries, exercise habits, training regimes and your symptoms, in addition to physical examination results to accurately diagnose your tendinopathy and stage its severity on the spectrum. Sometimes we will use diagnostic tests such as ultrasound (US) or magnetic resonance imaging (MRI) to assist this process.



Management and Treatment:

Physiotherapists at Sports Sense Physio will work with you to achieve a good recovery, addressing the specific contributing factors which influence your tendinopathy. In the case of OVERLOAD, they will often work with you to create a modified training regime which allows appropriate recovery time between sessions.

Your physiotherapist will also assess and address other contributing factors such as; poor biomechanics, strength and instability issues, postural abnormalities, running and walking technique (gait analysis) and flexibility issues as part of your recovery and rehabilitation.

It is vital in any tendinopathy management that an appropriate and well planned strengthening regime be undertaken to assist the tendon in its healing efforts. This should be conducted in consultation with either your physiotherapist at Sports Sense Physio or your exercise physiologist at PACE Health Management to avoid further injury.

“I’ll be right to still do Run For The Kids though, right?”

In some instances, when diagnosed quickly and accurately and you undertake a managed training regime, you will still be able to perform quite well in training and events despite having a tendinopathy. When planned in consultation with Sports Sense Physio you stand a very good chance of completing your fitness goals on time and in good form.

“...but the team is counting on me to do my bit in the Bloody Big Swim on Sunday!”

Rest assured though, if our physiotherapists believe it to be in your best interests they will advise you to withdraw from certain activities. Mismanagement due to a lack of understanding, poor compliance, frustration and impatience place you at significant risk of further injury such as tendon tears or potential rupture.

If the above information rings any bells for you, then maybe you are training a little too hard too soon.



SPORTS
SENSE
PHYSIO

The best treatment for tendinopathy is to recognise and manage the contributing risk factors prior to pain ever becoming a problem. Call Sports Sense Physio today (59768161) and speak with our experienced physiotherapists to learn more or organise a consultation to discuss your situation now.

“Sports Sense Physio – helping you on your road to recovery.”

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Consuming coffee one hour prior to exercise has been linked with an increase in endurance running and cycling.

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Train the Trainer 2015

PACE Mt Martha
12/12/15



The PACE Mornington and Mt Martha crew once again held the annual “Train the Trainer” event held at our Mt Martha Clinic. In 2013 & 2014 we have seen the team raise over \$2500 each for breast cancer and mental health charities, with 2015 fund-raising going towards Cystic Fibrosis Victoria.

The train the trainer event has become an annual date on the calendar where both staff and clients look forward to raising funds for a relevant charity. This event is popular for a number of reasons, particularly the opportunity for our wonderful clients to ‘get payback’ on their clinician. A silent auction was held for one month, with 3x 10 minute blocks for each team member up for grabs.

Cystic Fibrosis Victoria is a non-for-profit organisation working to improve the lives of those living and suffering with the disease.

Cystic fibrosis (CF) is a condition which primarily affects the lungs and digestive system because malfunction of exocrine system; responsible for producing sweat, saliva, tears and mucus. At this present time, there is no cure for CF. Patients learn to live with thickened and sticky lungs, airways and digestive system. Lung failure is very common among those with CF.

At PACE, we treat patients with CF with the aim of providing clearer airways, building a stronger diaphragm and improve the core strength of the individual. This is only a minor element to management of CF however often extremely beneficial.

In 2015, we once again raised over \$1500.00 for Cystic Fibrosis Victoria. These funds will go directly into the pockets of families who need money for even the basics of everyday living.

At PACE, we are extremely proud of the fact that we can raise much needed funds for charities across Victoria and Australia. We would like to once again thank those who contributed towards the efforts, and we can’t wait to do it all again next year.

Pick up that water bottle! A muscle dehydrated by 3% will have a 10% strength decrease.

Killian B. HIF, Top 10 fun fitness facts; 2013 May 2 [cited 2016 Feb 6]. Available from: <http://www.hif.com.au/healthy-lifestyle-blog/fitness/02052013/top-10-fun-fitness-facts.aspx>.





SHOE REVIEWS 2016

Written by sports podiatrists Paul Karak and Andrew Apolloni

With constant shoe updates throughout the coming year, and so much variety, choosing a shoe in 2016 is even more difficult than previous years. With the expensive cost of shoes, the brands available and the various models to choose from the choice needs to be right.

A shoe assessment with one of our sports podiatrist can reduce this angst and provide you with the correct shoe for your particular sporting event, avoiding injuries and the need to change your footwear too soon.

Below is a summary of some of our favourite shoes for 2016. This summary will provide you with a basic insight into footwear technology and models currently available.



Brooks Addiction Walker

Category : CONTROL
Mens : 7-15, Width 2E-4E
Womens: 6-12, Width B-2E
RRP \$230.00

The Brooks Addiction Walker is built on a support running shoe midsole and is designed to provide maximum stability for the foot. This shoe suits people who have a tendency to roll in excessively and are on their feet for long periods of time. Built with Brooks' famous Bio Mogo foam, the shoe provides excellent cushioning without compromising on the support. The Addiction Walker comes with lace fixation or velcro.



BROOKS LIBERTY 8

Category : NEUTRAL
Mens 7-15
Womens 6-12
RRP \$140.00

The Brooks Liberty is an excellent cross over shoe for activities like walking, tennis and gym. Its light weight mesh upper breathes well and provides excellent comfort yet maintaining support. Its midsole is well cushioned and its outsole caters for tennis, indoor sports, and walking. It accommodates orthoses well and is ideal for a neutral or slightly pronated foot type with an orthoses.



Brooks Dyad Walker

Category : NEUTRAL
Mens size 8-15 Width 2E
Womens size 6-12 Width B-D
RRP \$220.00

The Dyad Walker is a perfect walking shoe for neutral foot types or mild pronators with orthotics. Built with a straight last, the shoe has excellent stability and is able to accommodate an orthotic easily. Constructed with Brooks Bio Mogo foam the shoe provides excellent cushioning. The Dyad Walker is constructed with Leather uppers.



ASICS-180TR (Cross Trainer)

Category : CONTROL
Mens size 7-16 Width 2E to 4E | Womens size 6-13 Width D-2E
RRP \$160.00

The Asics-180 TR is a great cross trainer again built on a running shoe midsole. Like the Asics high end running shoes the 180 TR is constructed with Duo Max foam for additional mid-foot support. This is a great shoe for those with orthotics or if long periods of time are spent standing at work. This season the shoe comes in both leather and mesh upper options. Its outsole suits both a walker or cross training individual.



BROOKS DEFYANCE 7 AND 8

Category : NEUTRAL
Mens 7-13, 14, 15 Width D
Womens 6-13 Width B
RRP \$199.95

The Brooks Defyance is one of the most stable neutral shoes on the market. It provides the ideal firm platform for long distance running, without compromising too much on cushioning. It is durable and fits well, with excellent outsole traction. The Defyance 8 is softer than its predecessor which is not preferable, unless you are willing to compromise some stability for cushioning (foot type dependant). Both are still available, however the 7 may need to be ordered in. The Defyance fits an orthotic well, and suits a neutral foot type or mild pronator with an orthoses. It may feel a little "slappy" to begin with, however it moulds in well and softens after a few runs.



ASICS GT 1000 V3

Category : CONTROL
Mens 7-17, Width D, 2E, 4E
Womens 6-12 Width B
RRP \$160.00

The Asics 1000, although not their flagship control shoe is a work horse. It provides excellent stability, and cushioning, has a great outsole for traction, and accommodates for varying foot widths. Its upper breathes well and it accommodates an orthotic comfortably. Its dual density posting is positioned more posteriorly extending through the mid foot, making it perfect for the heel to mid foot striker. The 1000 maintains its consistency across models and provides no great surprises.



BROOKS VAPOR 2

Category :CONTROL
Mens 7-15 Width D
Women's 6-12, Width B
RRP \$179.95

The Brooks Vapor again is not top of their control shoe range, however it provides a great mix of stability, cushioning and durability. It is a little more shallow than the 1000 making a orthotic harder to fit, however with the positioning and durometer of the dual density midsole it makes an excellent control shoe. The upper breathes well and the outsole performs well in dry and wet conditions.



MIZUNO INSPIRE

Category : CONTROL
Mens 8-14 Width Standard
Womens 6-11 Width Standard
RRP \$199.00

The Mizuno Inspire is a very light running shoe coming in at 270g (mens) and 230g (womens) respectively. This is around 50-60 g lighter than most shoes in this category. However it still manages to maintain stability and a smooth, quicker transition from contact to toe off. Much of this is due to its double fan wave plate technology. It has a comfortable upper and fits an orthotic well. It is suitable for the moderate pronator with an orthoses, or mild pronator without. A consistent shoe year to year.



MIZUNO ENIGMA

Category : NEUTRAL
Mens 8-14 Width D
Womens 6-11 Width B
RRP \$ 239.95

Mizuno Enigma although a little bulky provides excellent cushioning both for rear foot and midfoot strikers. Its wave plate and deep flex grooves in the midsole provide a great platform to translate load smoothly through to propulsion. It can accommodate an orthoses and its upper holds well to support the foot on the midsole. A very durable running shoe with plenty of cushioning.

RUNNERS

WALKERS

For further information or bookings please contact:

Stonnington Podiatry on 9576 0467 or

Karak and Wilson Podiatry Group on the Mornington Peninsula at 9776 5576.



Could your tendons be causing you a pain in the butt?

By Stephanie Hayward - Senior Exercise Physiologist

Gluteal tendinopathy is the primary cause of lateral hip pain, and is most commonly reported in people over the age of 40 with women outnumbering men 4:1^{1,2,3}.

WHAT IS TENDINOPATHY?

Tendinopathy is a term used to describe a painful condition occurring in and around tendons in response to overuse. With gluteal tendinopathy (GT) people present with tenderness over the lateral side of the hip, which results in pain lying on the affected side and reduced power of the muscles around the hip. Commonly the weakness in the muscle results in difficulties walking up hill, standing and climbing up or downstairs.

WHY DOES GT OCCUR?

The causes of tendinopathies have been under debate until most recently a strong evidence based theory was proposed by Cook and Purdam (2009) who proposed that GT occurs in degenerative tendon state. This type of tendinopathy normally presents itself in the older population and specifically post-menopausal women over the age of 40^{1,2,3,4}. At this point the tendon has undertaken multiple structural changes including matrix breakdown, increase in type III collagen and debris making it less efficient to deal with loads. These tendons cannot tolerate loading as well as a healthy tendon. They can appear thicker and are at risk of partial tears and tendon rupture with advanced degeneration.

Less active people will have an increased predisposition for tendon degeneration as the load thresholds have reduced through inactivity. Women may have drawn the unlucky

straw when it comes to hip pain as their wider pelvis angle predisposes them to increase pressure of the gluteal tendons leading to further tendon disrepair.

HOW DO WE MANAGE GT?

Tendon pain is difficult to manage but exercise has been shown to successfully reduce tendon pain immediately, which can control pain for up to 45 min⁵. In particular isometric exercise (a muscle contraction without movement) can improve muscle strength and reduce pain significantly with tendinopathies⁵. Unlike a soft tissue injury, a tendon likes movement instead of rest. The reason behind this is not entirely clear but research suggested movement could alter the tendon structure by stimulating small proteoglycan cells to promote healing and removal of excessive water from the tendon. Movement can also inhibit descending pain pathways so we feel less discomfort^{5,6}. We also need to be patient with tendons as they can take up to 3-4 months to respond to rehabilitation as they don't have blood supply.

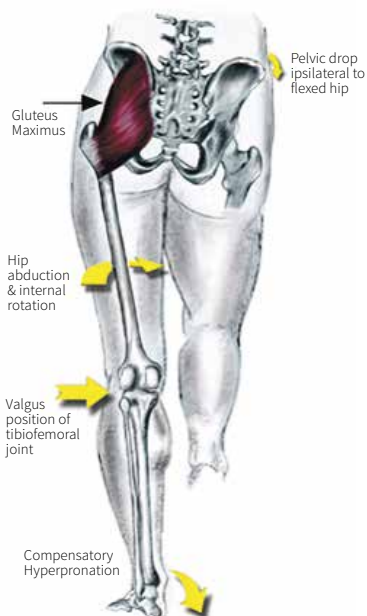
TENDON REHABILITATION

A key goal in tendinopathy rehabilitation is to improve capacity for the tendon and muscle to manage a load through strength work. Increasing or decreasing the load is the chief stimulus that can lead to either successful repair or breakdown. Too much repetitive overloading appears to irritate and cause irreversible structure changes and complete rest leads to degeneration from under stimulation. It is a fine balance that needs to be assessed regularly.

A comprehensive exercise rehabilitation program has been developed to manage tendinopathy injury. The table below outlines the 4 phase of rehabilitation that is best guided and assessed by an exercise physiologist to ensure you are safely undertaking each phase and exercises are personally prescribed for your condition.

Phase of Rehab	Aim	Treatments	Period
1	Reduce pain	Unload tendon Reduce compressive load Isometric exercises mid-range	1-3 weeks
2	Improve strength	Heavy slow resistance training in non-compressive position Isotonic exercises	3- 12 weeks
3	Build functional strength	Progress strength work into more functional tasks Treat movement dysfunction	12-20 weeks
4	Increase power	Reduce reps but increase speed of muscle contraction to build power	20+ weeks

Table 1. Tendinopathy rehabilitation progression table



PHASE 1 – REDUCE PAIN

The key to reducing pain is to reduce the load applied to the tendon by reducing activities that cause excessive loading and compression. This is where isometric training can be effective in providing some form of activation to the injured tendon, without causing irritation.

For the GT this requires minimising positions or activities that require the hip to adduct (move inwards) such as standing with crossed legs and sitting with crossed legs. Positions that aggravate pain also need to be modified (see table 2 and 3).

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SITTING	STANDING	LYING
		
Seated knees touching	Standing crossed legs	Side lying knees touching
		
Seated crossed leg	Standing hip dropped	Sitting low chair

Table 2. Positions to avoid with GT because of high compression





SITTING	STANDING	LYING
		
High chair knees hip width apart	Neutral feet hip width apart	Supine pillow under knees legs slightly apart
		
		Side lying pillow between knees

Table 3. Suggested position of low compression to adopt

Could your tendons be causing you a pain in the butt continued...



ISOMETRIC EXERCISE TRAINING

Isometric exercises can be helpful in reducing pain and swelling while maintaining muscle strength⁵. These are contractions that require no movement while pushing against something. Isometric exercises appeared to exert a generalised pain inhibitory response with light contraction intensity (25-50% maximal voluntary contraction) held for 30–60 seconds, repeated 5 times can have immediate and sustained pain relief affect for up to 45 minutes. It is best to start with non-weight bearing exercises for 20 seconds and build as tolerated.

SUMMARY:

Start with 20 sec isometric contraction and build up to 45 sec, repeat 5 sets with 2 min rest. Perform 4-5 times a day.



1. PRONE HEEL PRESS

Lie on stomach with knees bent in. Press heels together and squeeze buttock muscles. Hold static contraction.



2. SUPINE RESISTANCE BAND ABDUCTION

Lie on back with legs straight. Place a resistance band around knees. Push legs wider than hip width apart. Hold static contraction.



3. SIDE BRIDGE

Lie on side with knees bent in and elbow tucked under ribs. Push ups into a side bridge by lifting hips and torso off the ground. Squeeze your buttock muscles and hold.



4. SIDE LYING CLAM

Lie on side with pillow between bent knees. Lift top knee to the ceiling. Hold static contraction.



5. BRIDGE

Lie on your back with resistance band around bent knees. Lift hips up and push knees out while squeezing buttock muscles. Hold static contraction.



6. SIDE LYING HIP ABDUCTION

Lie on side with pillow between straight legs. Lift the top leg towards ceiling by squeezing your buttock muscles. Hold static contraction.

3.1. SIDE BRIDGE – VARIATION

Lie on side with legs straight and elbow tucked under ribs. Push ups onto a side bridge by lifting hips and torso off the ground. Squeeze your buttock muscles and hold.



5.1. BRIDGE (SPLIT) – VARIATION

Lie on your back with bent knees, your feet in a split stance. Lift hips up while squeezing buttock muscles. Hold static contraction.



During phase one, physical activity can usually be maintained in some form. It is important to avoid hill climbs, repetitive stairs and long walks. To keep up some form of fitness swimming or bike work can be continued.



PHASE 2 – IMPROVE STRENGTH

At this stage pain should be stable. The aim is to improve muscle strength and increase load capacity of the tendon with isotonic (moving) exercises. A slow, heavy load is needed to stimulate the muscle strength and improve tendon capacity. Slow, heavy resistance strength training involves using high loads approximately 70-80% of 1 repetition maximum (RM), 8-12 repetitions of 4 sets with 2 minute recovery, performed 3 times per week^{7,8}. Tendon response will take some time and there will be a loss of collagen production for 24-36hr post exercise. It is important to take adequate rest time between sessions.



SQUAT WITH BAND

Stand with feet hip width apart and band around knees. Push the hips back to perform a squat. Weights can be added to increase load.



LATERAL BAND WALK

Stand up tall with feet hips width apart and band around ankles. Take a step out to the side and return feet to original stance position.



STANDING HIP ABDUCTION

Place the band around outside foot and secure to an external structure. Stand on one leg with bottom muscles squeezed and move the outside leg to the side.



HIP HIKE

Stand on one leg. Contract buttock muscles on supporting leg and lift the opposite hip up. Ankle weights can be added to increase load.



WALL GLUTEAL PUSH

Stand tall against a wall. Raise your inside knee up the wall and bend your inside leg slightly. Push the knee into the wall.



SINGLE LEG SQUAT

Stand on one leg with pelvis aligned. When balanced sit the hips back to perform a squat. Ensure to keep hips and knee aligned. Return to standing. Weights can be added to increase load.

PHASE 3 – BUILDING FUNCTIONAL STRENGTH

Functional lower limb movement patterns may be disturbed in those with GT. Everyone's functional requirements will be different; some people want to return to gardening and walking while others want to complete a 20km run or triathlon. The aim of phase 3 is to strengthen the entire kinetic chain; by this we mean the rest of the body involved with function. If we strengthen all our other muscles involved in the movement, in theory we should move more efficiently and avoid strain on the overloaded tendon.



ARABESQUE

Stand on one leg with supporting knee soft. Extend the opposite leg behind in the air. Ensure the pelvis has not rotated and weight is on supporting heel.



HIGH STEP UP

Step up onto a step and hold single leg stance balanced at the top, slowly lower foot back to the ground. Ensure pelvis and knee stay in line. Add weights to increase load.

PHASE 4 - ADD SPEED

Speed exercises can be introduced every second or third day, as it adds substantial load to the tendon and requires further recovery time to ensure the tendon had rested. Exercises for speed can include skipping, hopping, stair climbs with no weights, lateral jumps and sport specific drills. If returning to sport is not a goal then balance exercises are beneficial for GT rehabilitation.

PAIN MONITORING

How do you know if you have got the exercise load right? The answer is, we monitor the pain response over the 24 hours post exercise. If it is the correct load the tendon will feel fine, if the tendon is niggly or sore 24 hours post exercise you may need to lower the load or time.

IN A NUT SHELL To manage gluteal tendinopathy, avoid loading and compression positions to help reduce pain in the first few weeks. Use isometric exercises to maintain strength and relieve pain. Gradually increase load on the tendon by following a slow progressive strengthening program, and remember to be patient, as tendons will take a lot longer than soft tissue injuries to recover.





Who are the Dietitians at PPN?

WHAT IS A DIETITIAN?

A dietitian is an accredited university qualified practitioner who is able to assist individuals to achieve their diet related goals and prevent illness and disease through dietary analysis, medical nutrition therapy and meal/menu prescription.

WHAT SORT OF PEOPLE CAN SEE A DIETITIAN?

Anyone! No referral is needed. PPN Dietitians specialise in weight management, chronic health conditions (such as heart disease and diabetes), food intolerances and allergies, sports nutrition, nutrition for bariatric surgery, eating disorders, and clinical nutrition.

WHERE CAN I SEE PPN DIETITIANS?

PPN's main offices are in Mornington at 15 Railway Grove. We also practice out of clinics all over the peninsula, including Frankston, Langwarrin, Somerville, Rosebud, Sorrento and Malvern. Our newest location is in PACE's rooms in Mount Martha, 34-38 Lochiel Ave. To make an appointment at our new clinic, call 5974 3147 or at our main offices, call 5974 1011. To find out more about our dietitians, check out our website

www.healthandnutrition.com.au



Quinoa, Corn and Zucchini Fritters with Poached Egg

Feeling like a healthy gourmet breakfast, or lunch, or dinner, at home? Try this...

Ingredients:

1/3 cup white quinoa, cooked.
2 eggs (one for poaching)
Corn off 1 cob
1 zucchini grated
½ red onion, finely chopped
1-2 tbs milk, if needed
1 x 95g tin of tuna in spring water (optional)
50g low fat feta, crumbled
1 tbs chopped coriander
Salt and pepper

Method:

1. Cook quinoa as per instructions on the packet. Allow to cool.
2. Mix together all ingredients, except for 1 egg. If too dry add milk until mixture is sticky.
3. Heat a non-stick fry pan and spoon tablespoons of fritter mixture into pan. Cook for 2-3 minutes on each side or until golden.
4. Heat water in saucepan until just boiling, swirl water and add cracked egg to poach. Allow to cook until yolk is as desired.
5. To serve, put 2-3 fritters on a plate, top with poached egg, sprinkle with chopped coriander or serve with rocket and natural yoghurt, if desired.



Difficulty falling asleep, frequent snoring, less than 6 hours sleep, and sleep apnoea are linked with an increased risk of type 2 diabetes. Those suffering from 2 of these conditions have double the risk of developing type 2 diabetes and if you have all 4 of these symptoms the risk is quadrupled.

Bakalar N. Sleep problems tied to type 2 diabetes. Well. 2016 Feb 4 [cited 2016 Feb 6]. Available from: http://well.blogs.nytimes.com/2016/02/04/sleep-problems-tied-to-type-2-diabetes/?ref=health&_r=0.



> Creating Healthy Workplace Cultures

Fostering a culture of physical and mental health & well being within the workplace reaps enormous dividends. Did you know that unhealthy workers take 9 x more sick days per year than healthy workers?

Our workplace programs are designed to help you create a healthy workplace culture – with a focus on chronic disease management, mental resilience and injury prevention.

One of our most popular workplace interventions is BackFit™. The BackFit™ program focuses on improving the awareness, manual handling skills and physical capabilities of your workforce. This has shown to improve self-management amongst employees and reduce the need for ongoing passive treatment.

“

I think the BackFit™ program is the best workplace program I have experienced. This program is enjoyable, successful – every participant is happy to be there and it is making a difference to my health and well-being.

My physiotherapist has also noted the changes.

So a very big thank you, I hope more staff get to enjoy this incredible program – and hopefully you can extend the program as an ongoing concern.

Participant, November 2015

”

Medibank Private 2005. The health of Australia's workforce



Have a look at our new Occupational Health web page paceoh.com.au to learn more about all our programs, and get in touch with us info@paceoh.com.au





Brand New Clinic

PACE Sandringham

Exercise Physiology

- > Chronic Disease Management
- > Rehabilitation
- > PACE Standardised Programs

Strength & Conditioning

- > Health & Wellbeing
- > Body composition change
- > Athletic Development
- > Injury Prevention Programs

Pilates

- > Postural Strengthening
- > 1:1, 1:2, 1:4 training
- > Reformer Pilates

Want to find out more?

Simply email
ben@pacehm.com.au
or call us on **9598 3169**

Those that achieve 150 minutes of exercise per week have up to a 30% reduction in their risk of developing depression.



PACE Health Management is excited to announce that as of March 7th we are consulting in a brand new clinic in SANDRINGHAM!
This clinic is located at 2/18-34 Station St, and will offer everything you need to live a healthy & active lifestyle.



Pace Group Timetable Sandringham 2016

Building Healthy Communities, Workplaces & People...

2/18-34 Station St, Sandringham

www.pacehm.com.au PH: 9598 3169

FOLLOW US @PACEHM TO ENHANCE YOUR HEALTHY LIFESTYLE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
7.00am						Functional Training Group
8.00am						1 on 4 Performance
9.00am				1 on 4 Rehab		Run Functional Training Group
10.00am		Exercise Physiology Group			Exercise Physiology Group	1 on 4 Rehab
5.00pm	1 on 4 Performance		1 on 4 Rehab			
6.00pm	1 on 4 Rehab	Functional Training Group	1 on 4 Performance	Functional Training Group		
7.00pm	Functional Training Group		Functional Training Group			

EXERCISE PHYSIOLOGY	EXERCISE SCIENCE	PILATES
Individual Consultation 45 minutes \$80	Individual Consultation 60 minutes = \$90 30 minutes = \$60	Initial Assessment 45 minutes \$90
	Buddy Sessions 60 minutes \$50 p.p.	1 on 1 Pilates 45 minutes \$80
1 on 4 Rehabilitation 60 minutes \$40 p.p.	1 on 4 Performance 60 minutes \$40 p.p.	1 on 3 Pilates 45 minutes \$50
Exercise Physiology Groups 60 minutes \$30 p.p.	Functional Training Groups 60 minutes \$30 p.p.	
Private Health Fund Rebates apply Medicare Rebates with EPC referral Workcover TAC	Packs Available 10 x 60 minute: \$850 10 x 30 minute: \$550 10 x Buddy Sessions: \$450 p.p.	Private Health Fund Rebates Apply

Email: ben@pacehm.com.au



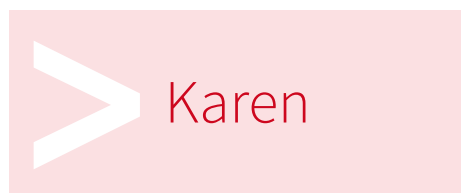
**RUNNING GROUPS AS OF SATURDAY 5th MARCH 8AM.
MEET AT THE CLINIC. GOLD COIN DONATION TO CHARITY.**

Choices N. Department of Health. Benefits of exercise - live well - NHS choices; 2015 Dec 4 [cited 2016 Feb 6]. Available from: <http://www.nhs.uk/Livewell/fitness/Pages/Whybeactive.aspx>.

CONSERVATIVE VS SURGICAL INTERVENTION

By Ben Southam - Senior Exercise Physiologist

Regularly in the clinic we get asked by patients “do you think I need surgery?” This is a highly complex and often individualised dilemma faced by many Australians daily. Unfortunately, there is often not a one-size fits all approach which can make the decision to have surgery or not very hard.



Tell us a bit about your injury? How did it occur?

I believe the original injury occurred around 15 years ago, about six months after the birth of my first child. I was lifting the pram out of the boot of my car. I've since had several 'flare-ups' over the years; with the most recent also being the most severe. I was training heavily for a half-marathon, and was running a high number of kilometres every week. I was competing in a 400m track race (sprinting), and felt my back 'just go' at about the 200m mark. However, I was beating my 14 year old daughter (who was the cause of the original injury), and I didn't want to stop! I did beat her in the end, but several hours later became aware that I'd really hurt myself. A MRI later showed that I had two prolapsed discs, with the L5/S1 site showing a large amount of nerve compression. The other site (L3/L4) showed a large prolapse, but without nerve compression. I had L5/S1 discectomy 8 months after the last injury.

What sort of symptoms did you experience before surgery?

Mostly intense nerve pain on the lower right side of my body; especially when



changing position from sitting to standing. Also 'shooting' and 'stabbing' pains when sneezing, coughing or using any twisting movements. Running, sitting and bending was very painful. Quite often my right leg felt heavy or numb, and I felt 'pins and needles' most of the time. Sometimes I tripped slightly on my right foot.

How did this affect your daily living?

The pain affected almost every part of my day, every day. I was very uncomfortable at work most of the time, as my job requires long periods of sitting. I wasn't able to run at all; and as this is my main sporting activity, I wasn't able to compete with my team-mates for many months. I dreaded spring, as I suffer from hayfever. Even a random sneeze or cough could knock my feet out from under me. I didn't sleep well, because any movement caused pain. Essentially, my life revolved around my injury; and how much pain my activities caused.

Why did you choose to undergo surgery?

1. My surgeon was really positive about a very good result; because it was a very 'standard' injury and therefore 'routine' surgery; and also that I was fit and active prior to the injury and during the recovery.
2. I didn't see that the other options of (i) doing nothing and (ii) having cortisone injections to manage the pain were suitable for me. I wanted to get back into my usual routine; surgery offered the best chance at doing so.

Were there any hesitations/doubts leading into and following surgery?

Yes! I was terrified. The surgeon was quite honest; this was serious surgery! What if something went wrong?? I'm a busy mum with a family that relies

on me being active and capable. But I researched the process, both through written sources; discussion with professionals and people who had undergone the same procedure. I came to the conclusion that I was fit and healthy; and had put myself in the best position I could to recover well from such a procedure.

How have you found rehabilitation post surgery?

Slow but with steady improvement. The first 12 weeks post-surgery were frustratingly slow and careful (by my own estimation); but excellent according to my post-surgery physiotherapist. Seven months on, I'm back to most of my regular training with a few adjustments to ensure protection of the remaining prolapse that wasn't repaired during surgery. I'm much better at listening to my body. I run when I feel good and pain free; if I don't feel as good, I walk fast instead. I have found my muscles have taken time to re-adapt to sitting for extended periods, and I still have muscular pain from time to time in my neck and shoulders. Most of these niggly pains have been alleviated by exercise, stretches, rolling or massage; and they are becoming less annoying over time.

Do you experience any limitations nowadays?

How does this compare to before surgery? Very few limitations these days. I can do most things I did before the injury without pain. I can sneeze or cough without bracing myself on a bench to avoid falling over! I've started back running, and although my speed and distances are not back to where I'd like just yet; I'm really enjoying being out there, and have run a couple of races with quite good times. But I'm much more careful about my activities these days, especially lifting, twisting and the amount of time spent sitting. So overall, a massive improvement to my daily life since having the surgery.

What are you able to do now that you couldn't before surgery?

Pretty much everything. Sitting for any length of time was a real problem; which made driving anywhere uncomfortable and affected my ability to perform my job properly. Since the surgery, I'm very reliable at work; I've been able to resume my team running activities, do housework comfortably and get back into looking after my beloved garden.

Looking forward, what are your specific health goals?

I hope to beat my half-marathon PB by August 2016; then if all goes well, complete a marathon in 2016 too. But generally, I need to manage the remaining disc prolapse effectively so that I can keep being as active as I want to be. So general back health is probably my highest priority!

What advice would you give to those thinking of having surgery?

Consider all of the options carefully, do your research, and consult several expert opinions if necessary. And if you know something is working for you and giving you relief (for me it was exercise and keeping moving); don't be afraid to pursue it with guidance from a trained expert.



Tell us a bit about your injury? How did it occur?

I have a bulging disc in my lower back as well as a condition called spondylolisthesis in the same region. I have had the disc bulge for nearly 4 years following a fairly innocuous incident at work where I hurt a facet joint, and the "spondy" since I was 18 (in other words, quite a long time)!

What sort of symptoms did you experience before treatment?

A significant amount of pain in my glutes/lower back as well as pain running down my leg finishing with lots of tingling under my big toe.

How did this affect your daily living?

A lot! I was overseas for a period of time and could only walk for short periods before having to sit down to relieve the pain. I had to stop all forms of impact exercise like Zumba which I really enjoyed doing. At times walking 100 metres was too much. Even driving a manual car was difficult.

Unfortunately after heaps of various treatment, including multiple cortisone injections, the symptoms got worse. At one stage I could only get around by crawling!

Why have you chosen not to undergo surgery?

Purely for practical reasons - I'm a single parent and there is potentially too much down time and rehab after the surgery. It would be difficult to manage at home. I also work in a small business so taking too much time off work would be tricky. I have met with a surgeon but am trying to avoid surgery for these reasons. Having said that, I think I am only a couple more "flare ups" away from meeting with the surgeon again. My pain tolerance is pretty high but there is only so much you can take of this type of pain.

How have you found conservative treatment?

I have spent a lot of time (and money) on various treatments including massage, myotherapy, acupuncture, osteotherapy, chiro, physio, pilates, cortisone - the list goes on....I have found the most success with exercise physiology concentrating on strengthening my core combined with osteopathy as required. Walking in water is also effective. I also try to have a massage monthly to help manage pain & I bought my own tens machine at one stage which also helps with pain relief. Doctors have prescribed various medications as well but I only use these sparingly. The occasional glass of wine also helps!

Do you have any continual limitations?

Yes - after spending time at PACE I am much better at determining what might not be good for my back as well as listening to my body. It is quite challenging having the 2 problems as sometimes what is good for one is not good for the other and vice versa.

Rest is sometimes required for the disc bulge but being active is how I manage the "spondy". This can get very frustrating!

What are you able to do now that you couldn't before treatment?

My core strength has definitely improved a lot and when any fitness instructor tells a class to "activate the core" I now know what they mean! I am much more aware of my posture as well which is especially important as I work in an office environment, sitting a lot.

Looking forward, what are your specific health goals?

I have always been very active and really love exercise. It is a very important part of my life so I want to continue getting stronger and fitter. Last year I completed a few Fun Runs but then had a major flare up so running is out of the equation for a while. I possibly should start doing more yoga and pilates type exercises but I love cardio workouts and don't want to give these up. I just wish to keep healthy in general (physically & mentally) as I get older which means exercising consistently.

What advice would you give to those thinking of having surgery?

Successful back surgery is not guaranteed and comes with risks so if an injury can be managed without it then that's the ideal. Obviously surgery is sometimes the only option, and if I ever get to that point then I will follow that path.



Contact your closest **PACE Exercise Physiologist** for more information.

www.pacehm.com.au

“I love working with people to try and help keep them as healthy and fit as possible”



Recently PACE Health Management welcomed Dr Bethan Knapp to the team at Frankston. Dr Knapp is a general practitioner and a sports doctor. We sat down with her for a quick interview, to hear her thoughts on a few popular treatment regimes as well as find out a little more about her.

1. What do you love about being a sports doctor?

I love working with people to try and help keep them as healthy and fit as possible, from elite athletes to older people trying to keep mobile and pain free. I love working in a team environment with specialists, physiotherapists, and exercise physiologists. I have been really lucky in my career to have some money-can't-buy sporting experiences such as working with olympic athletes and being the doctor on the bench at Wembley Stadium at the English Premier League play-off final. These days I enjoy helping people to achieve optimal health and forging ongoing relationships with my patients.

2. What do you do to keep yourself fit?

I compete as a triathlete so spend lots of time training - swimming, cycling and running. It's a brilliant way to keep fit, healthy and make great friends. I have been lucky enough to represent Australia in my age group in the World Triathlon Championships.

3. Who is suitable to see you as a patient?

Anyone needing injury or illness management, diagnosis or investigation or a general holistic check-up of physical and mental health.

My main areas of expertise as a sports doctor are in the diagnosis, investigation and imaging of injuries, further

management of persistent injuries, coordinating an overall management plan when multiple specialists and practitioners are involved and optimising health and well being. I practice holistically and employ natural remedies, supplements, exercise and medication.

4. What is your opinion on Synvisc and Orthokine injections? Who benefits from them? What do they do?

Both these products are used for patients with osteoarthritis of a major joint, usually the knee, and are given in the form of an intra-articular (in to the joint) injection. They are treatments

that may be of benefit to patients who are struggling with the pain of diagnosed moderate-severe osteoarthritis and are keen to avoid joint replacement. They work in quite different ways. Orthokine is an extracted and modified form of anti-inflammatory factors of the patient's own blood and used to reduce inflammation. Synvisc is a gel that acts in the same way as our natural joint fluid and buffers the damaged cartilage. Both work best with a structured rehabilitation exercise program.

5. Can you outline the polypill regime. When is this beneficial?

Many patients suffer from tendinopathy, often of the patellar or achilles' tendon which can affect sporting performance and activities of daily living. The "polypill" regime is a combination of anti-inflammatory medications and supplements taken for a week to help reduce the inflammation in an acute episode of tendinopathy or a resistant case that is not responding to the usual treatment. It is an adjunct to the main stay of treatment, which is progressive loading exercises.

6. What's the best book you've read lately?

"Unbroken" by Laura Hillenbrand. A classic tale of survival in the face of adversity.

7. If you had to give only one piece of advice to our readers about improving their health, what would it be?

The usual advice of keeping fit, active and eating well. "Those who don't make time for exercise will have to make time for illness". Come and get a medical review early for any unexplained symptoms or reduction in performance.



KNOW PAIN OR NO GAIN

By Josh McCarthy - Senior Exercise Physiologist



At some point in our lives we have all experienced pain whether it be touching something that is too hot or a sporting injury. Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage¹. Its primary function is to promote human survival by stopping us doing things that could cause us harm or death and thus is extremely useful². If you break a bone, pain will tell you it is best to rest but if you get muscle ache from sitting down too long your pain will tell you to move.

What if pain becomes no longer useful and instead hinders normal activity for a longer than normal time? This is the case in chronic pain where pain extends beyond the expected healing time³. The relationship between acute or immediate pain and injury is very straightforward. With chronic pain this link with injury is complicated by other factors, which include neural changes, thoughts and beliefs, anxiety, and past experiences^{1,2,3}.

References

1. What is pain? [cited 2016 Feb 14]. Available from: <http://www.painaustralia.org.au/living-with-pain/what-is-pain.html>.
2. Butler DS, Moseley LG. Explain pain. 2nd ed. Australia: Noigroup Publications; 2013. ISBN: 9780987342669.
3. Exercise is Medicine. Chronic pain and exercise why it hurts! Understanding chronic pain. 2014 [cited 2016 Feb 14]. Available from: <http://exerciseismedicine.org.au/wp-content/uploads/2014/05/2014-Chronic-Pain-FULL.pdf>.
4. Marlow N. Exercise Right. How exercise can help chronic pain and reduce symptoms [cited 2016 Feb 14]. Available from: <http://exerciseright.com.au/chronic-pain-and-exercise/>.

Know pain

Chronic pain has been shown to cause neural changes within the brain, spinal cord and extremities. You are more likely to notice pain and respond to it in a more severe way. If you have injured your lower back from picking up something previously, this can leave what is known as a 'neurotag' or a pain memory. Next time you go to pick something up, the areas of your brain, spinal cord and extremities associated with pain will be activated higher than normal. Meaning that next time you go to pick something heavy up you may experience pain even though structurally you have not injured anything. These changes worsen over time, creating a vicious cycle².

The ultimate decision to recognise pain comes from the brain. Just thinking about a certain movement or watching someone perform a movement can sometimes be enough to produce pain. This kind of thought process is a normal one to have. Your brain learns from experiences as it tries to protect you and your experiences tell you that certain movements can cause further injury².

Motion is lotion!

The best treatment for the management of chronic pain are active treatments, this includes education and exercise³.

Significant research has shown that exercise is an

essential aspect in the treatment of chronic pain. The body and mind love to move, for a lot of bodily structures, this is how they get their nutrients in order to be strong and healthy.

Exercise helps to calm the nervous system down so that it does not respond to pain as easily, this effect can last up to one hour post exercise. This effect is further improved when combined with education and knowledge surrounding pain and that further injury is not necessarily related.

The best form of exercise is to have a combination of modalities, including;

- Stretching exercises,
- Strengthening exercises, such as squats, wall push ups or bicep curls,
- Cardiovascular exercises, such as walking, swimming or bike riding.

To get the best out of exercising to manage chronic pain there are several tips to follow. Firstly, you may experience some pain whilst exercising. This is okay as long as you're not experiencing a constant increase in pain. Remember, pain does not necessarily lead to further injury. Secondly, it's all about consistency, exercise should be performed regularly with gentle progressions to achieve the full benefits. Finally, seeking out a health professional who understands pain and is able to effectively communicate with you⁴.



Here at PACE, my family and I get to share the great privilege of working out with a personal trainer that will help you and your family to get fit all throughout the year.

During one of the holidays, I went snowboarding in America. This was a mighty challenge but the strength and conditioning training I did at PACE in the months leading up to the trip made my experience, as well as my brother's, a whole lot better. Snowboarding was not just more enjoyable but the way PACE got me to think about strength and fitness made me feel as if I could get through a whole day without

fatigue. As I climbed up to 15,000 feet, where snow lay deep and the air was thin, my physical fitness and endurance easily got me through those 8 days straight.

For a few years now we've been going to PACE and my whole family has transformed into almost superhumans. Admittedly, I'm looking forward to starting the new year's structured program that has been created for me to help me get ready for the soccer season and to join my family in improving our general health and wellbeing in a great fun environment.

Jack Lundberg 14



Know your risk!

If you scored 6-11 points in the AUSDRISK you may be at increased risk of type 2 diabetes. Discuss your score and your individual risk with your doctor. Improving your lifestyle may help reduce your risk of developing type 2 diabetes.

If you scored 12 points or more in the AUSDRISK you may have undiagnosed type 2 diabetes or be at high risk of developing the disease. See your doctor about having a fasting blood glucose test. Act now to prevent type 2 diabetes.

THE AUSTRALIAN TYPE 2 DIABETES RISK ASSESSMENT TOOL (AUSDRISK)

1. Your age group

- | | | |
|------------------|--------------------------|----------|
| Under 35 years | <input type="checkbox"/> | 0 points |
| 35 – 44 years | <input type="checkbox"/> | 2 points |
| 45 – 54 years | <input type="checkbox"/> | 4 points |
| 55 – 64 years | <input type="checkbox"/> | 6 points |
| 65 years or over | <input type="checkbox"/> | 8 points |

2. Your gender

- | | | |
|--------|--------------------------|----------|
| Female | <input type="checkbox"/> | 0 points |
| Male | <input type="checkbox"/> | 3 points |

3. Your ethnicity/country of birth:

3a. Are you of Aboriginal, Torres Strait Islander, Pacific Islander or Maori descent?

- | | | |
|-----|--------------------------|----------|
| No | <input type="checkbox"/> | 0 points |
| Yes | <input type="checkbox"/> | 2 points |

3b. Where were you born?

- | | | |
|---|--------------------------|----------|
| Australia | <input type="checkbox"/> | 0 points |
| Asia (including the Indian sub-continent), Middle East, North Africa, Southern Europe | <input type="checkbox"/> | 2 points |
| Other | <input type="checkbox"/> | 0 points |

4. Have either of your parents, or any of your brothers or sisters been diagnosed with diabetes (type 1 or type 2)?

- | | | |
|-----|--------------------------|----------|
| No | <input type="checkbox"/> | 0 points |
| Yes | <input type="checkbox"/> | 3 points |

5. Have you ever been found to have high blood glucose (sugar) (for example, in a health examination, during an illness, during pregnancy)?

- | | | |
|-----|--------------------------|----------|
| No | <input type="checkbox"/> | 0 points |
| Yes | <input type="checkbox"/> | 6 points |

6. Are you currently taking medication for high blood pressure?

- | | | |
|-----|--------------------------|----------|
| No | <input type="checkbox"/> | 0 points |
| Yes | <input type="checkbox"/> | 2 points |

7. Do you currently smoke cigarettes or any other tobacco products on a daily basis?

- | | | |
|-----|--------------------------|----------|
| No | <input type="checkbox"/> | 0 points |
| Yes | <input type="checkbox"/> | 2 points |

8. How often do you eat vegetables or fruit?

- | | | |
|---------------|--------------------------|----------|
| Every day | <input type="checkbox"/> | 0 points |
| Not every day | <input type="checkbox"/> | 1 point |

9. On average, would you say you do at least 2.5 hours of physical activity per week (for example, 30 minutes a day on 5 or more days a week)?

- | | | |
|-----|--------------------------|----------|
| Yes | <input type="checkbox"/> | 0 points |
| No | <input type="checkbox"/> | 2 points |

10. Your waist measurement taken below the ribs (usually at the level of the navel, and while standing)

Waist measurement (cm)

For those of Asian or Aboriginal or Torres Strait Islander descent:

- | Men | Women | |
|------------------|-----------------|-----------------------------------|
| Less than 90 cm | Less than 80 cm | <input type="checkbox"/> 0 points |
| 90 – 100 cm | 80 – 90 cm | <input type="checkbox"/> 4 points |
| More than 100 cm | More than 90 cm | <input type="checkbox"/> 7 points |

For all others:

- | Men | Women | |
|------------------|------------------|-----------------------------------|
| Less than 102 cm | Less than 88 cm | <input type="checkbox"/> 0 points |
| 102 – 110 cm | 88 – 100 cm | <input type="checkbox"/> 4 points |
| More than 110 cm | More than 100 cm | <input type="checkbox"/> 7 points |

Add up your points

Your risk of developing type 2 diabetes within 5 years*:

- ☐ **5 or less: Low risk**
Approximately one person in every 100 will develop diabetes.
- ☐ **6-11: Intermediate risk**
For scores of 6-8, approximately one person in every 50 will develop diabetes. For scores of 9-11, approximately one person in every 30 will develop diabetes.
- ☐ **12 or more: High risk**
For scores of 12-15, approximately one person in every 14 will develop diabetes. For scores of 16-19, approximately one person in every 7 will develop diabetes. For scores of 20 and above, approximately one person in every 3 will develop diabetes.

*The overall score may overestimate the risk of diabetes in those aged less than 25 years.

Why is it important?

The knee is a complex joint relying heavily on the support of surrounding muscles to prevent injury and improve movement efficiency. Dynamic knee stability refers to the ability of the knee joint to remain stable when subjected to rapidly changing loads during activities such as jumping, landing and twisting. As these movements are so prominent in board sports like skateboarding, snowboarding, surfing and wakeboarding, it is vital that the knee has sufficient muscular support to prevent knee injuries such as ligament tears (anterior cruciate ligament, posterior cruciate ligament, medial cruciate ligament, and lateral cruciate ligament), knee dislocation, and meniscus tears. For a rider, if there is knee instability, it means there is a far greater chance of suffering one of the injuries mentioned above, which means a long time away from the sport you love.

Dynamic Knee Stability for all Board Sports

Box jumps with a twist

1. Begin with your feet shoulder width apart, jump onto a stable surface no higher than knee height initially, and land with your feet together.
2. From the stable height, jump up and twist 180 degrees back to the ground where you jumped from, and land on both feet with a soft bend in the knees.

Important cues:

- Try to make each landing as soft as possible by ensuring you are maintaining a soft bend in the knees.
- Keep the back as straight as possible throughout.
- Use the arms to help generate momentum on the way up.

Progression: Perform on one leg, and increase height.

Regression: Don't land on a high surface, just jump over a line with the 180 degree rotation.



Single leg bosu squat

1. Stand with your foot in the middle of the Bosu ball holding a Theraband/rope lightly for balance.
2. Whilst keeping a straight back and focusing on keeping your chest up, slowly bend the knee of the leg on the Bosu ball, ensuring that the knee is following the line of your middle toe (aim for a 90 degree bend).
3. With a focus on squeezing the glute, slowly return to an upright position.
4. Repeat steps 1-3 10 times on each leg, and perform a total of 3 sets on each leg with a short rest period in between.

Important cues:

- Ensure the pelvic floor is activated to assist with balance.
- Keep the back straight and chest up.

Progression: Do not hold anything for balance and hold a weight plate to increase difficulty.

Regression: Either do it on both legs, or remove the Bosu ball for a stable surface.





Upcoming Fun Runs/Walks



DATE	TITLE	LOCATION	DISTANCES	COST
2nd April	Tan Time Trial	Botanical Gardens	4km, 8km	Gold Coin Donation
3rd April	Geelong Half Marathon	Geelong	7km, 21km	7km: \$25 21km: \$55
9th April	Surf Coast Trek from Torquay → Aireys Inlet	Torquay	40km trek	\$50 per person
16th April	Run the Rock	Hanging Rock Racecourse	Kids 2km, 5km, 10km, 19km	See website for options
16th April	The Color Run Night Run	Flemington Racecourse	5km	Adults (16+): \$62.50 Kids (5-16): \$53 Kids(<6): Free
1st May	Puffing Billy Great Train Race	Belgrave	13.5km	See website for options
8th May	Mothers Day Classic	Melbourne	Various Distances	See website for options
15th May	Great Ocean Road Marathon	Apollo Bay	1.5km kids, 6km, 14km, 23km, 44km	See website for options
22nd May	Sri Chinmoy Como Landing Half Marathon	South Yarra	7km, 14km, 21km	7km: \$25 14km: \$25 21km: \$30

According to a recent study published in International Journal of Workplace Health Management, people who exercised during their workday were 23 percent more productive on those days than they were when they didn't exercise.

ACTIVE.com. How exercise boosts your brainpower [cited 2016 Feb 6]. Available from: <http://www.active.com/fitness/articles/how-exercise-boosts-your-brainpower>.

12 WEEK TRAINING PLAN

Need some guidance in getting ready for your next event? Try the below 12 week plan to keep you on track, and progressing week to week! If you haven't exercised in a while, it might be worthwhile consulting your GP or allied health professional. The below is just a guide, remember to take it at your own pace.

If you need something more specific, why not contact us at myhealth@pacehm.com.au



Leaders in Exercise Prescription

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Got a question? myhealth@pacehm.com.au

Training Zone: T1
Name: Active Recovery
Heart rate zone (max): <65%
Feel: Easy
Perceived Exertion: 6/10


Training Zone: T2
Name: Tempo
Heart rate zone (max): 80-85%
Feel: Steady
Perceived Exertion: 7-8/10

Training Zone: T3
Name: Endurance Base
Heart rate zone (max): 65-80%
Feel: Race pace/comfortable hard
Perceived Exertion: 8.5/10

Training Zone: T4
Name: Threshold
Heart rate zone (max): 85-90%
Feel: Hard/sustainable to a point
Perceived Exertion: 9/10

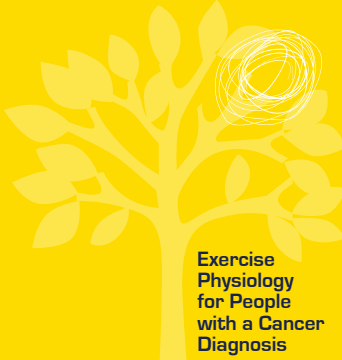
Training Zone: T5
Name: Anaerobic
Heart rate zone (max): >90%
Feel: Short burst/very hard
Perceived Exertion: 10/10

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	30 minutes T2	Recovery Techniques	Day off	Cross Training 30-60 minutes	Day off	30 minutes T2	Day off
2	Cross Training 30-60 minutes	30 minutes T2	Day off	30 minutes T2	Day off	40 minutes T2	Day off
3	Cross Training 30-60 minutes	30 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5* 60 sec T4: 60 sec rest. 10 T2	Day off	50 minutes T2	Recovery Techniques
4	Cross Training 30-60 minutes	30 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5 * 3 min T3 60 sec rest. 10 T1	Recovery Techniques	60 minutes T2	Day off
5	Cross Training 30-60 minutes	30 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5 * 30 sec T4 90 sec rest 10 T2	Day off	45 minutes as (10 T2 / 5 T3) 3	15-30 minutes T2
6	Cross Training 30-60 minutes	30 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5* 1 min T4: 1 min rest. 10 T2	Day off	20 T2 10 T3 10 T2 5 T3	15-30 minutes T2
7	Cross Training 30-60 minutes	45 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5 * 3 min T4 60 sec rest. 10 T1	Cross Training 30-60 minutes	60 minutes T2	15-30 minutes T2
8	Day off	45 minutes T2	Optional Strength (Gym/Pilates)	45 minutes T2	Day off	15 T2 / 30 T3	15-30 minutes T2
9	Cross Training 30-60 minutes	10 T2 10*1 min T4: 30 sec rest/ 15 T2	Optional Strength (Gym/Pilates)	10 T2 5* 1 min T4: 1 min rest. 10 min T2	Cross Training 30-60 minutes	30 T2 / 30 T3	15-30 minutes T2
10	Day off	45 minutes T2	Optional Strength (Gym/Pilates)	10 T2 5 * 3 min T4 60 sec rest. 10 T1	Cross Training 30-60 minutes	60 minutes T2	15-30 min T2
11	10 T2 10*1 min T4: 30 sec rest 15 T2	Cross Training/Strength work. 30-60 minutes.	15 minutes T2 15 minutes T3 15 minutes T2	45 minutes T2	Recovery Techniques	15 T2 30 T3 15 T2	Day off
12	Cross Training 30-60 minutes	30 minutes T2	Recovery Techniques	10 T2 5* 1 min T4: 1 min rest. 10 min T2	Day Off	10-15 minutes T2	RACE DAY



LIVING WITH CANCER PROGRAM


An exercise and lifestyle program designed to improve the wellbeing and manage the symptoms of participants during and post cancer treatment.



Exercise Physiology for People with a Cancer Diagnosis

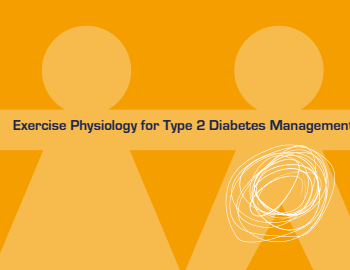
Regular exercise after cancer diagnosis will increase cancer survival rates by 50-60%, with the strongest effect seen for prostate, colorectal and breast cancers.

Australian Association for Exercise and Sport Science Position Statement Optimising Cancer outcomes through exercise. Hayes, C. Spence, R. Galvão, D. Newton, R. J. Science and Medicine in Sport, 2009; 12: 428-434



TYPE 2 DIABETES MANAGEMENT COURSE [MEDICARE SUBSIDISED]


An exercise, nutrition and lifestyle modification course to assist in the management of Type 2 diabetes.



Exercise Physiology for Type 2 Diabetes Management

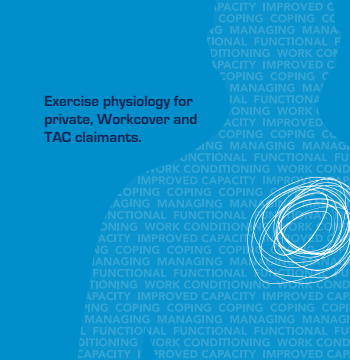
Exercise training improves glycaemic control body composition, cardiovascular risk, physical functioning and wellbeing in patients with type 2 diabetes.

Exercise and Sports Science Australia position statement: Exercise prescription for patients with type 2 diabetes and pre-diabetes.



RETURN TO FUNCTION


A pathway to self management



Exercise physiology for private, Workcover and TAC claimants.


Worksafe research shows that physical work conditioning programs are effective in returning workers to work faster, reducing pain and disability and reducing the likelihood of recurrent injuries.¹

¹ Fawcett RL, Gatten K, Davies J, Ivin E, Sinclair S, Frank J. Institute of Work and Health. J Occup Rehabil. 2008; Dec 15; 10:107-21



POSTURE PERFECT PROGRAM


A specific and individualised exercise and educational program to promote optimal posture and improve workplace ergonomics and manual handling.



Exercise Physiology for Optimal Posture

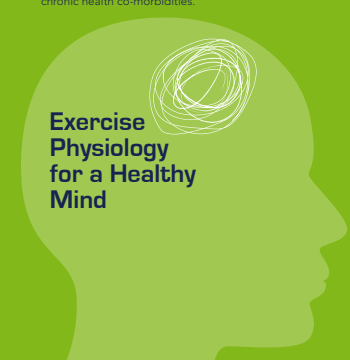
80% of people will have some degree of lower back pain across their life span.

Walker BF, Muller R, Grant WD. Low back pain in Australian adults: prevalence and associated disability. J Manipulative Physiol Ther 2004; 27(4):238-44



MIND YOUR OWN HEALTH!

An exercise and lifestyle program to improve the psychological well being of an individual with a mental health condition and to prevent or manage other chronic health co-morbidities.



Exercise Physiology for a Healthy Mind

In Australia, it is estimated that 45% of people will experience a mental health condition in their lifetime. Anxiety is the most common mental health problem in Australia with depression the leading cause of disability worldwide. (Beyond Blue)

PACE Mind Your Own Health Program:

An 8 week exercise and lifestyle program designed to assist individuals with the management of mental health conditions (e.g. depression or anxiety).

Note: Individual sessions may be subsidised by Medicare if your GP deems appropriate.

Program Goals:

- To improve psychological well being through implementation of strategies to facilitate overcoming barriers, improved motivation and management of stress, fatigue and symptoms.
- Induce the release of the body's natural feel good hormones and the flow of oxygen to the brain which improves mood and awareness.
- Assist with maintaining a healthy weight, increasing energy, reducing lethargy and improving sleep patterns.

Program Outline:

- > 1 x 30 minute assessment
- > 2 x 30 minute individual sessions
- > 5 x Exercise Physiology group sessions

Contact Details:

Frankston South 24 Yuille St Ph 9770 6770 Frankston LifeCare 342 Nepean Hwy Ph 9770 2343 Rosebud Physiotherapy Clinic 42-44 Boneo Rd Ph 5986 3655 Mornington 103 Main St (rear) Ph 5973 6109 Mt Martha Suite 5, 34-38 Lochiel Ave Ph 5974 3147 Langwarrin Sports Medicine Centre 83-85 Cranbourne Rd Ph 9789 1233	Endeavour Hills Medical Centre 1/61 Heatherton Rd Ph 9700 7777 Dandenong South - Select Medical Group 440 Frankston Dandenong Rd Ph 9706 5168 Sandringham 2/18-34 Station St Ph 9598 3169 Malvern 73-75 Station St Ph 9576 3216 info@pacehm.com.au www.pacehm.com.au
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Exercise Physiology • Personal & Group Training • Corporate Wellness

PACE Health Management

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 24 Yuille St, Frankston South 3199
 PH 9770 6770 FAX 9770 6776

Frankston – LifeCare
 342 Nepean Hwy, Frankston 3199
 PH 9770 2343 FAX 9770 2276

Rosebud Physiotherapy Clinic
 42-44 Boneo Rd, Rosebud 3939
 PH 5986 3655 FAX 5986 2506

Mornington
 Rear 103 Main St, Mornington 3931
 PH 5973 6109 FAX 5973 6178

Mt Martha
 Suite 5, 34-38 Lochiel Ave, Mt Martha 3934
 PH 5974 3147 FAX 5974 3193

Langwarrin Sports Medicine Centre
 83-85 Cranbourne Rd, Langwarrin 3910
 PH 9789 1233 FAX 9789 8828

Endeavour Hills Medical Centre
 1/61 Heatherton Rd, Endeavour Hills 3802
 PH 9700 7777 FAX 9708 1111

Dandenong South - Select Medical Group
 440 Frankston Dandenong Rd, Dandenong Sth 3175
 PH 9706 5168 FAX 9706 5163

Malvern
 73-75 Station St, Malvern 3144
 PH 9576 3216 FAX 9576 3295

Sandringham Now Open
 2/18-34 Station St, Sandringham 3191
 PH 9598 3169 FAX 9598 5089



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