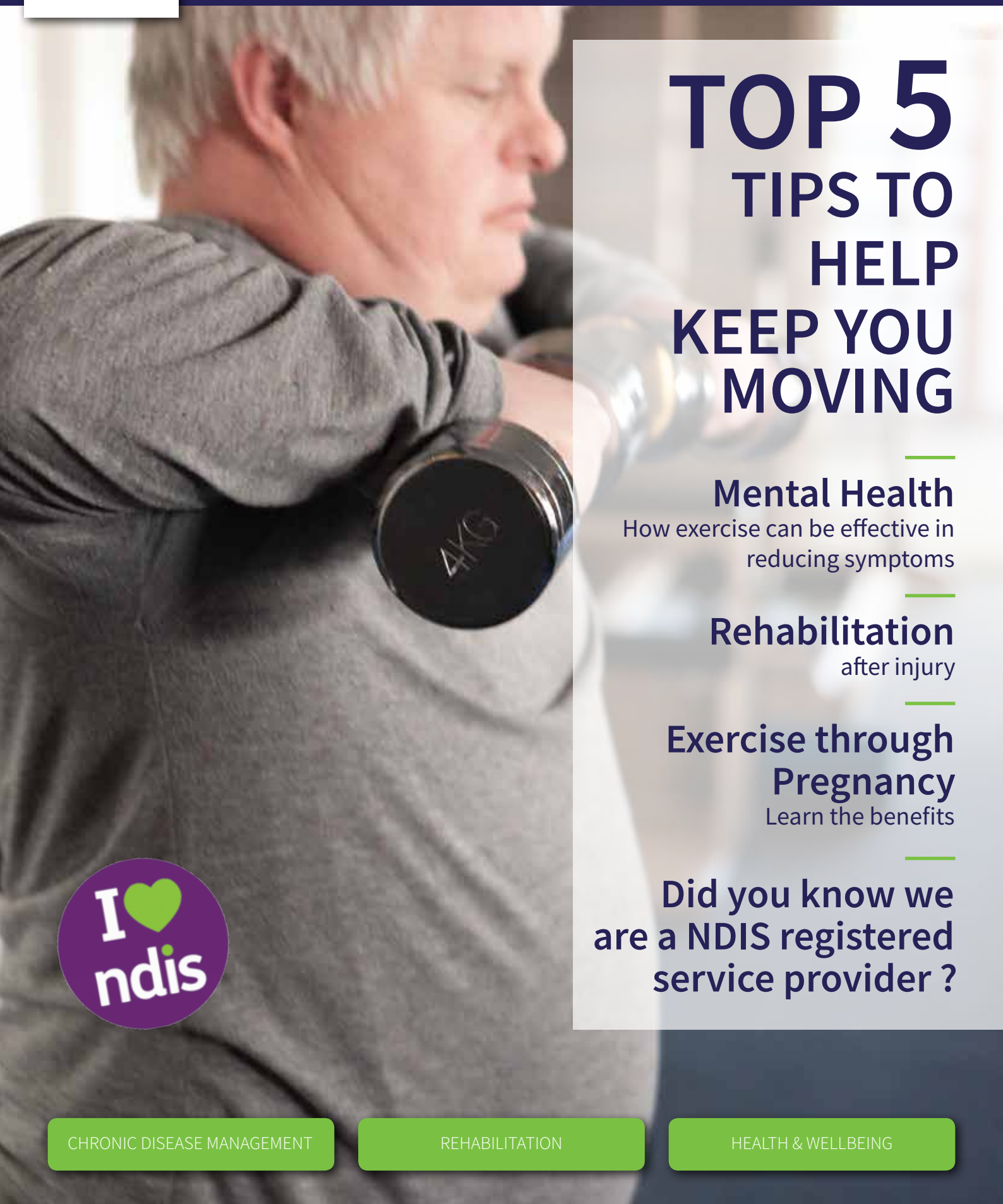
A HEALTHY PACE

Lifestyle Magazine > Issue 6



TOP 5 TIPS TO HELP KEEP YOU MOVING

Mental Health
How exercise can be effective in reducing symptoms

Rehabilitation
after injury

Exercise through Pregnancy
Learn the benefits

Did you know we are a NDIS registered service provider ?

CHRONIC DISEASE MANAGEMENT | REHABILITATION | HEALTH & WELLBEING

Welcome

Welcome to our latest edition of 'A HEALTHY PACE', where we aim to provide you with all the information you need to live your happiest & healthiest life!

This edition is full of heaps of useful tips and tricks, to keep you moving better, feeling better & performing better. We delve into the benefits of sleep for health & performance, discuss the power of habits, and outline how to utilise parasympathetic breathing to return to a state of recovery.

We believe in helping people to help themselves, and believe that this is the key to long lasting outcomes. We've shared our thoughts on a few areas of chronic disease management and rehabilitation, including; mental health & exercise, pregnancy & exercise and type 2 diabetes management.

PACE Exercise Physiology is now a registered NDIS service provider, and in this edition we've included some success stories from a few of our clients, as well as some information on the benefits of exercise for those living with a disability. More information on the NDIS can be found at www.pacehm.com.au/ndis or at www.ndis.gov.au .

If you'd like to here more from us, there are a few ways you can stay in touch with us.

You can visit our new website (www.pacehm.com.au) and sign up to our monthly e-news.
You can join PACE HQ on Facebook, our digital community.
You can follow us on Instagram & Facebook @pacehm.

We hope you find something of value in this magazine, which can help you to lead an active life.

Happy reading,

The PACE Team

CONTENT

CLIENT STORIES

YVETTE THARLE

Diagnosed with osteochondritis dessicans (OCD) when she was 18 years old, Yvette has had 3 knee operations over her life. She now completes a regular exercise program to maintain high quality of life, and health and wellbeing. Yvette maintains a 2 acre manicured garden and reports being in the best shape of her life.

OCD is a condition that develops in joints, most often in children and adolescents. It occurs when a small segment of bone begins to separate from its surrounding region due to a lack of blood supply.

REHABILITATION

Our team of accredited exercise physiologists work across a wide scope of practice, including but not limited to the conditions listed below. We exist to foster positive behaviour change to help develop long term sustainable outcomes so you can better self-manage your condition/long term injury. These outcomes are achieved via education, development of self-management strategies, best practice exercise prescription and environmental change.

Whether you are looking to return to work/sport/ life following an injury or better manage a chronic condition/ long term injury, including an accredited exercise physiologist in your team will help to improve long term outcomes.

MUSCULOSKELETAL REHABILITATION

- **Return to work**
  - Return to function
  - Safe manual handling and ergonomics
  - Capacity profiling and pre-employment screening
- **Return to sport**
  - Junior athlete development programs
  - Rehabilitation —> performance
  - Running programs
- **Return to life**
  - Back pain
    - Non-specific lower back pain
    - Discogenic pain
    - Facet joint pain
  - Shoulder and neck pain
  - Hip pain
- **Tendinopathy**
  - Achilles
  - Hamstring
  - Patella
  - Gluteal (greater trochanteric pain syndrome)
  - Rotator cuff
  - 'Golfer's' and 'Tennis' elbow
  - Osteoarthritis
- **Pre and post surgical rehabilitation**
  - Total hip and knee replacement
  - ACL re-construction/ return to sport programs
  - Spinal surgery
- **Chronic pain**
  - Fibromyalgia
  - Chronic regional pain syndrome
  - Rheumatoid arthritis

CHRIS EASTAWAY

Chris is a professional fire fighter, who injured his shoulder at work 8 years ago. He had a shoulder repair (surgical intervention) completed 7 years ago but never felt like he got back to 100% function and complained of pain every day since the operation. Upon surgical review 7 years after the operation, Chris was recommended to have another surgery rather than seeking a second opinion from his physiotherapist who recommended he attend PACE Exercise Physiology for the development of a graded rehabilitation program.

"I was of the belief that I was physically incapable of doing the job. Being told that might actually be the case by the surgeon was particularly unhelpful. But now, through the exercise programs, I have complete confidence in my shoulder and believe that I can continue to do my job for the long term…"

Chris has worked extremely hard on his rehabilitation program, including an educational component on shoulder mechanics and pain science, to give him a deeper understanding of the many factors which influence the pain experience. Due to his commitment, Chris has had a highly successful outcome. He now reports not only being able to complete his role as a professional fire fighter but also play with his kids without pain. Chris regularly completes strength sessions, achieving a recent deadlift record of 110kg.

To find out more about Chris' story, head over to our Facebook page and watch his video interviews…

MENTAL HEALTH AND EXERCISE

Mental Health has been thrust into the spotlight over the past few years and with good reason too. Recent statistics show that 45% of Australians will suffer a mental health condition in their lifetime while right now 1 million Australians are suffering depression while a further 2 million Australians are suffering from anxiety.

We continually see great work being done by organisations such as beyond blue & headspace which have changed the mindset of the general population and demonstrated that Mental health needs to be respected as a health condition similar to that of a torn ACL or type 2 diabetes instead of frowned upon like it may have been in the past. It is through this great work that new research and treatment options have become available to assist those suffering from depression and anxiety.

"Physical activity is the most natural and accessible means to improve mental health" – Poirel et al 2017

From this, further exploration has been done on the benefits exercise can play in improving mental health. Research has shown that exercise may be just as effective, if not, more effective than medication and psychotherapy at reducing symptoms associated with mental illnesses. During and after exercise, our body releases chemicals, including serotonin and endorphins, which act as our 'feel good' hormones, making us feel more energetic and positive.

WHAT ELSE HAS RESEARCH FOUND?

- Just one session of exercise can have the ability to lower anxiety, having similar effects to medication
- Exercise can lower anxiety long-term and make you feel calmer and in control.
- When suffering from depression, research has shown that exercise can halve a persons perceived feeling of depression and more than 40% of people will stay that way for at least 3 months.
- Active individuals are also 45% less likely to develop symptoms of depression.

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>> MENTAL HEALTH AND EXERCISE CONTINUED

As Accredited Exercise Physiologists we will always strive to assist all people in improving their quality of life and general "healthiness" by assisting people with their physical activities levels, knowledge of exercise benefits and health coaching. So how much exercise should be done?

Just 20-40 minutes of aerobic exercise (i.e. brisk walk, jogging, riding, swimming) can be enough to improve anxiety and mood for several hours. Non-aerobic activity (i.e. yoga, strength training and relaxation) has also been shown to reduce anger, depression and confusion. Exercising regularly (daily) will have a more positive effect on mental health.

"If exercise could be packed into a pill, it would be the single most widely prescribed and beneficial medicine in the nation…"

With new research continually coming out in regards to exercise benefits and mental health, it is time to identify that this modality should form a vital role in helping people manage mental health appropriately.

NEVER EXERCISED BEFORE OR STARTING BACK UP? TOP TIPS:

- Start small (15 minutes of walking per day) and build up gradually (to 30 min per day)
- Select an activity you enjoy
- Exercise with a friend or family member
- Choose places that you are familiar with and don't increase anxiety levels
- Use a pedometer or other apps to count you daily steps. (aim for 10,000).

OTHER BENEFITS OF PHYSICAL ACTIVITY:

- Improved mood and self-esteem
- Decreased stress levels
- Increased social participation and feeling of belonging
- Improved sleep qualityminutes of walking per day) and build up gradually (to 30 min per da

Haven't exercised for a while? Focus on developing habits and setting achievable goals which you can achieve daily. This might be as simple as a 10 minute walk each morning…

EXERCISE AND PREGNANCY

Exercising throughout pregnancy can be an area of confusion for many women, we aim to provide the correct information to help keep expecting mothers happy and healthy. There are many health benefits to be gained for both yourself and your baby by remaining physically active during pregnancy.

The benefits include:

- Increased fertility
- Decreased risk of gestational diabetes and postnatal depression.
- Improved circulation, energy levels, posture, muscular tone and strength/ endurance.
- Improved sleep patterns and reduced stress/ anxiety.
- Reduced back pain and other common musculoskeletal conditions associated with pregnancy.
- Helps maintain a healthy weight range.
- Prepare the body for childbirth and improve postnatal recovery.

With the average pregnancy gaining between 10-15kg anteriorly and centrally there is inevitably a change in centre of gravity that can have an effect on coordination, balance and posture (Olson and Blackwell, 2011). The parallel increase in weight gain and ligament laxity contributes to 50% of women suffering from lower back pain during pregnancy.

Research indicates that women who exercise throughout pregnancy experience less pelvic, shoulder and lower back pain (Artal and O'Toole, 2003). The increased fitness, pelvic floor and abdominal strength associated with an appropriate exercise program assists women through with delivery and post birth recovery. In addition to postural changes, vascular changes cause an increase in resting heart rate, maximal heart rate and a blood pressure decrease (American College of Obstetricians and Gynecologists, 2002). Monitoring hydration, heat status, rest periods and changes in position is an essential component of exercise therapy.

Up to 50% of pregnancies exceed the recommended healthy weight gain leading to high-risk pregnancies, preeclampsia and gestational diabetes (Royal College of Obstetricians and Gynaecologists, 2003). Additional weight gain during pregnancy also acts as a pre-curser to post partum weight retention and an increased risk of obesity for the child in adulthood (Olson and Blackwell, 2011). Women who return to exercise within 6 months of giving birth are more likely to return to a healthy weight range (Siega-Riz, Viswanathan and Moos, 2003). Post partum depression remains one of the leading complications during the prenatal and post-partum period (Gaynes et al., 2005). Exercise increases the release of endorphins, provides a sense of mastery, increases self-esteem, improves body image perception, provides a sense of achievement, as well as acting as a distraction from stressful stimuli (Daley and Macarthur, 2007).

Pregnancy is now defined as a time for behaviour modification. It is no longer seen as a period for confinement. Habits that are adopted during pregnancy play a major role in shaping women's health for the rest of their life (Sports Medicine Australia, 2013). Our accredited exercise physiologist's will help guide women through a suitable exercise program in a supportive and friendly environment. Every woman is different, and as a result, so are our exercise programs.

ERIN POWER

Erin initially came to PACE 8 weeks after the birth of her first child to complete her postnatal rehabilitation. Erin attends a weekly Mums and Bubs class at our Mount Martha clinic with her major goals being to regain strength and complete regular exercise in a safe, specific, and suitable manner.

To find out more about Erin, head over to our Facebook page to see her video interview…

"It's been a great way to exercise… everything's been tailored to me…"

ATHLETE DEVELOPMENT

Do you want to move better, feel better or perform better?

Our accredited exercise physiologist's will help guide you through a long term plan, designed to help you reduce your injury risk and optimise your performance. Our programs focus on improving how you move via the development of a specific action plan based on findings in your initial assessment. When we move better, we feel better and we have the potential to perform better. Our training programs are focused on developing the basic foundations of movement with particular focus placed on improving movement patterns to improve movement efficiency and performance potential.

MOVE → **TRAIN** → **PERFORM**

MADDY:

Maddy was initially referred from Physio@ Sandringham due to ongoing bilateral knee pain. Her goals were to improve her lower body strength and stability which she now feels she has achieved through consistent strength training. Maddy attends a junior training group 2 times per week and says she leaves each session feeling good, both physically and mentally.

"I've noticed that I'm a lot stronger now and I think that's really good because that was my main goal"

DANIELLE:

Dani first attended PACE for recurrent ankle sprains. The focus of her program was to strengthen her lower limbs, improve her lumbopelvic stability, balance, and proprioception. Since commencing the Junior Athlete Development Program at PACE, Dani has significantly improved her lower body strength and movement patterning, and significantly decreased ankle related issues.

"I have loved coming to PACE because all the trainers are so amazing"

NDIS

PACE Health Management is a NDIS registered service provider for exercise physiology services. We are experts at delivering evidence based clinical exercise prescription and lifestyle modification guidance. We skilfully and respectfully combine our expertise to inspire, educate and motivate our clientele as they face new obstacles, and strive for change to get the most out of their lives.

Our mission is to "help people help themselves". Typical program goals are centred on improving functional capacity, reduction of symptoms, development of self-management strategies, and independence, to ultimately improve quality of life.

HELPING PEOPLE HELP THEMSELVES

MEET – JENNY-ANGLISS GOODALL

We know many allied health professionals help clients improve their health, people often ask us what is different about an Exercise Physiologist in regard to their approach or treatment. How would you answer that question in regard to your experience?

"My exercise physiologist takes a really holistic approach and focuses on what I can do rather than what I can't and that is a really big thing in my experience."

" I've started doing exercises that no other "health professional" has suggested, and evidently these are exercises that an ordinary everyday person does, we just adapt them to suit me and my body."

How has your exercise physiologist helped you outside of sessions?
" I remember to activate my core and correct my posture, and now I don't get a sore back like I use to."

For people watching or reading this interview: Why would you encourage them to come to see a PACE Exercise Physiologist?
As I mentioned earlier, your exercise physiologist focuses on what you can do, rather than what you can't and adapts the exercise to suit you. I encourage all my friends to come to PACE.

ARE YOU ELIGIBLE FOR NDIS FUNDING?

- Are you under 65 years of age?
- Have a permanent impairment or disability that results in substantially reduced functional capacity that affects participation and requires lifetime support?
- Registered with NDIS?

For more information on NDIS funding, simply head to www.ndis.gov.au or contact us at info@pacehm.com.au to find out more about our services today.

MEET – TREVOR

It is well known that rates of physical activity among those with an intellectual disability are lower than those without. A combination of social, behavioural, environmental and physiological barriers may prevent those with Down syndrome from achieving adequate physical activity levels.

"I can do things easier and I feel fitter".
Trevor

Individuals with an intellectual disability have been found to have low cardiovascular fitness, lower limb strength, gait/postural instability, and are likely to be overweight in comparison to their peers. Exercise has been shown to improve cardiovascular fitness, muscular strength, postural control, and balance ability among those with intellectual disabilities. Basic functions and adaptive skills are also positively affected by exercise, leading to greater independence in leisure and work activity. An exercise program for those with Down syndrome should be simple, structured and stimulating, whilst meeting the specific physiological needs of the individual.

Trevor first attended PACE Exercise Physiology in February 2018. He attends regular supervised sessions with our exercise physiologists and completes a prescribed home exercise program daily. The goals for Trevor's program are to enhance his fitness levels, improve social interaction, increase involvement in leisure activities, and manage body composition. Trevor undertakes varied exercises each session involving balance, strengthening, and cardiovascular exercises with a focus on paired and interactive exercises with his exercise physiologist. Trevor's most loved exercise is boxing!

"It has been great to see Trevor improve his confidence to complete exercise every day and with the Exercise Physiologists assistance he has improved his gait, aerobic fitness, energy levels and he is now sitting less" - John (Trevor's dad)

MEET – DEE GOLDBERG

Having been diagnosed with Parkinson's disease, Dee first attended PACE Exercise Physiology one year ago on the recommendation of friends. She had never been an 'exercise person' and was somewhat hesitant to commence an exercise program not know what to expect. Move forward one year and Dee is an avid exerciser. She attends PACE three times per week as well as attending regular dance classes. Her exercise program consists of cardiovascular, resistance, and proprioception exercises.

"PACE has helped me, especially my overall fitness. One of the main things I've noticed the most is how much my balance has improved. When I trip over something or the wind takes me, I used to fall over".

MEET – NELSON

Nelson attends PACE Exercise Physiology in Malvern for the Junior Athlete Development program once per week. He is a state level soccer player as well as competing in shot put and discus. He has hemiplegic cerebral palsy which affects his right side. His program is a combination of resistance, cardiovascular and proprioceptive exercises to develop his athletic performance but also maintain his functionality.

"In terms of people with cerebral palsy, they do this kind of stuff in a hospital environment but compared to PACE, PACE specifically has facilities that are tailored to improving strength and stability".

YOU'RE ONLY ONE WORKOUT AWAY FROM A GOOD MOOD

WE'VE COMPILED OUR TOP TIPS TO HELP KEEP YOU MOVING BETTER AND FEELING BETTER SO YOU CAN LIVE YOUR HAPPIEST AND HEALTHIEST LIFE!!!

TIP 1: START WITH WHY...

- Have a clear picture of why you are getting out of bed in the morning.
- Remind yourself of this simple why every time you feel your motivation wavering.
- Feeling brave? Socialise this goal to friends and family members.

Progress over perfection...

TIP 2: MAKE A PLAN AND STICK TO IT...

- Develop habits and routines to minimise the decision making process in your daily exercise.
- Aim to complete your daily movement at a time, which is most convenient for you and physically schedule it in your diary.
- Need an extra push? Tell your kids your plan and ask them to keep you on track…

TIP 3: ENLIST THE SUPPORT OF A BUDDY OR GROUP TO INCREASE ACCOUNTABILITY.

- Meeting someone helps to solidify our commitment. It could be as simple as meeting a friend for a walk after work.
- Local running groups and exercise classes are a great way to do this.
- Can't find a regular time? Try moving whilst the kids are at sport i.e. walk 3 laps of the footy oval when you drop them off to training.

TIP 4: MAKE IT FUN!!!

- Variety is the spice of life. Try different forms of exercise to avoid falling in a rut.
- Yoga, Tai Chi, Pilates, resistance training, etc. can all be completed indoors when the weather is bad, and are all excellent ways to give the body a different stimulus.
- Feeling like an adventure? Why not try a new activity like stand up paddle boarding, bike riding, kayaking, etc.

"I regret that workout" - no one ever

TIP 5: CELEBRATE THE LITTLE VICTORIES!

- Celebrate the milestones.
- As a general rule, people are quick to criticise their attempts at movement. Give yourself a pat on the back for all the small wins, they add up to make a big difference! Start with a high five for simply getting out the door.
- Walked every morning for a month, maybe shout yourself to some new exercise gear.

FEELING A BIT STALE IN YOUR CURRENT EXERCISE PROGRAM? CHANGE IS AS GOOD AS A HOLIDAY, SO TRY MIXING IT UP WITH SOME NEW TYPES OF MOVEMENT! THIS MIGHT BE YOGA, PILATES, STRENGTH TRAINING, INTERVAL TRAINING, THE LIST GOES ON....

PARASYMPATHETIC BREATHING…

Had a tough day? Feeling stressed out? Maybe you've just finished a hard work out? Chances are you are operating in a state of SYMPATHETIC nervous activity...

Our SYMPATHETIC nervous system is responsible for our "FIGHT OR FLIGHT" response, and acts on the systems of the body to help us perform at our peak. This is highly important as it allows us to run faster, jump higher, and increase productivity. Physiological changes such as increased heart rate and blood pressure, sweat response, and hormone release (cortisol, adrenaline, etc.) all allow us to achieve our peak at any given moment.

UNFORTUNATELY, far too many of us live in a state of SYMPATHETIC nervous activity far more than needed. Over-stimulation, anxiety, and pressures of the modern world mean we often struggle to return to a state of PARASYMPATHETIC ACTIVITY...

WHY DOES THIS MATTER???

Our PARASYMPATHETIC nervous system is responsible for "REST, DIGEST and RECOVER", meaning if we don't spend the majority of our time in this state something is going to suffer... Long term issues may include adrenal fatigue/ burn out, weight gain, chronic disease such as type 2 diabetes, heart disease, and stroke. Short term issues may include changes in sleep patterns, general lethargy and fatigue, anxiety, and depression etc.

There is strong evidence to now show that athletic performance and training adaptations are also increased when we get to a state of recovery sooner i.e. return to parasympathetic nervous activity.

So, if you want to not only feel and perform better but also become the happiest and healthiest version of yourself, then it makes sense to spend some time on enhancing your recovery.

The simplest way to return to a PARASYMPATHETIC state is to complete PARASYMPATHETIC BREATHING.

- Inhale for 4 seconds
- Hold for 4 seconds
- Exhale for 8 seconds
- Repeat for 6 minutes

(Side note: fitting in as little as 6 breathes of the above has been shown to decrease cortisol by up to 50%!!!)

So, the next time you are feeling STRESSED OUT or TIRED, why not take 6 minutes, have a lie down and simply breathe…

MULTIPLE SCLEROSIS

WHAT IS MULTIPLE SCLEROSIS (MS)?

Multiple Sclerosis (MS) is a chronic neurological disease. Most patients are commonly diagnosed between the ages of 20 and 40. MS affects 2-3 times as many women as men and is characterised by random autoimmune attacks of and damage to the insulating myelin sheath (demyelinisation) of the central nervous system and to motor axons (nerve fibres). Lesions in myelin can be present in the cerebral hemispheres, brainstem, and spinal cord. This demyelinisation negatively affects rapid smooth coordinated movement. MS is diagnosed by patient history of attacks, MRI of the brain and spinal cord and analysis of spinal fluid during disease flare-ups for specific antibodies.

Common signs and symptoms include:

- Fatigue
- Spasticity
- Poor coordination
- Impaired balance
- Weakness and paresis
- Sensory loss and numbness
- Cardiovascular dysautonomia
- Tremor
- Impaired sudomotor function (reduced sweating response)
- Heat sensitivity
- Blurry vision
- Bladder dysfunction
- Cognitive and memory defects

BENEFITS OF EXERCISE

Persons with MS have been observed to be more sedentary than apparently healthy age-matched individuals. Nonspecific physical deconditioning is known to contribute to fatigue and general poor health in persons with MS. In addition, maximal muscle force measured during isokinetic testing has been shown to be consistently lower in MS patients likely due to spasticity and/or co-contraction of opposing muscles, conduction block of demyelinated fibres, reduced muscle metabolic responses during voluntary exercise, muscle weakness because of fibre atrophy and/or sensory deficits.

Because some individuals with MS are at an increased falls risk and their symptoms and energy levels can vary daily, aerobic and resistance sessions should be supervised, individualised, and frequently modified. In addition, heat sensitivity, spasticity, sensory deficits, muscle weakness, and fatigue can preclude upright activities like walking and running and reduce tolerated exercise intensity and duration.

Benefits from engaging in regular bouts of physical activity include:

- Improved lower limb strength and power for improved functional ability
- Improved walking speed and gait efficiency
- Increased independence
- Improved individual impairments
- Improved balance / reduce falls risk
- Improved cardiorespiratory fitness for co-morbidity reduction
- Improved quality of life
- Reduced fatigue
- Reduced depressive / anxiety symptoms

References

DeBolt LS, McCubbin JA. The effects of home-based resistance exercise on balance, power, and mobility in adults with multiple sclerosis. Archives of Physical and Medical Rehabilitation 2004;85(2):290-7.

Mostert S, Kesselring J. Effects of a short-term exercise training program on aerobic fitness, fatigue, health perception and activity level of subjects with multiple sclerosis. Multiple sclerosis 2002;8(2):161-8.

Patti F, Ciancio MR, Cacopardo M, Reggio E, Fiorilla T, Palermo F, et al. Effects of a short outpatient rehabilitation treatment on disability of multiple sclerosis patients: a randomised controlled trial. Journal of Neurology2003;250(7):861-6.

Halabchi, F. Alizadeh, Z. Sahraian, M.& Abolhasani, M. (2017). Exercise prescription for patients with multiple sclerosis; potential benefits and practical recommendations. BMC Neurology. 1471-2377. 17: 1-11

Pilutti, LA; Edwards, TA. (2017). Is Exercise Training Beneficial in Progressive Multiple Sclerosis?. International Journal of MS Care. Hackensack, New Jersey, 19, 2, 105-112.

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PARKINSON'S DISEASE

PATHOPHYSIOLOGY

Parkinson's disease (PD) is still considered to be largely idiopathic (unknown cause), yet is a neurological disorder manifested clinically by;

- Resting tremor
- Bradykinesia- slowness of movement
- Rigidity- muscle stiffness cogwheel/lead-pipe
- Postural instability: inability to maintain upright stance
- Hypokinesia - small amplitude of movement
- Tremor - oscillating movement regular in beat
- Dyskinesia - rhythmical writhing movement

Physiologically the symptoms associated with Parkinson's disease are the result of the loss of a number of neurotransmitters, most notably dopamine. Dopamine's role as a neurotransmitter is to transmit chemical messages from one nerve cell to another and over time as more cells are affected, motor symptoms worsen. The severity of the disease is commonly described using the Hoen & Yahr Disease severity rating;

- Symptoms on one side of the body only
- Symptoms on both sides of the body. No impairment of balance.
- Balance impairment. Mild to moderate disease. Physically independent
- Severe disability, but still able to walk or stand unassisted
- Wheelchair-bound or bedridden unless assisted

BENEFITS OF EXERCISE

Research has shown that exercise can improve gait, balance, tremor, flexibility, grip strength and motor coordination. Exercise such as treadmill training and biking have all been shown to benefit, along with Tai Chi and yoga. So far, studies have shown:

- Engaging in any level of physical activity is beneficial, rather than being sedentary — this is associated with improved motor symptoms.
- For people with mild to moderate PD, targeted exercises can address specific symptoms for example: aerobic exercise improves fitness, walking exercises assist in gait, resistance training strengthens muscles. One study showed that twice a week tango dancing classes helped people with PD improve motor symptoms, balance and walking speed.
- Exercise may also improve cognition, depression and fatigue, but the research is still ongoing in these areas.
- One study showed that people with PD who exercised regularly for 2.5 hours a week had a smaller decline in mobility and quality of life over two years.

References

Morris, M. E., R. Iansek, et al. (2009). "A Randomized Controlled Trial of Movement Strategies Compared with Exercise for People with Parkinson's Disease." Movement Disorders 24(1): 64-71

Rodrigues, J. (2008). "Parkinson's Disease: a general practice approach." Royal Australian College of General Practitioners 2nd Ed.

CHRONIC DISEASE MANAGEMENT

Our team of accredited exercise physiologists work across a wide scope of practice, including but not limited to the conditions listed below. We exist to foster positive behaviour change to help develop long term sustainable outcomes and better facilitate self-management of your chronic disease/ condition. These outcomes are achieved via education, development of self-management strategies, best practice exercise prescription and lifestyle modification.

Metabolic conditions

- Type 1 diabetes
- Type 2 diabetes
- Gestational diabetes
- Impaired glucose tolerance and impaired fasting glucose

Chronic pain

- Fibromyalgia
- Rheumatoid arthritis
- Chronic regional pain syndrome

Cancer

Cardiovascular disease

- Cardiac rehabilitation
- Risk factor reduction
- Stroke rehabilitation

Mental health

- Depression
- Stress
- Anxiety
- Bi-Polar
- Schizophrenia

Falls prevention /balance

Disability

- Down syndrome
- Multiple sclerosis
- Parkinson's disease
- Autism spectrum disorder
- Motor neurone disease
- Acquired brain injury
- Spinal cord injury
- Cerebral palsy

Osteoporosis

Osteoarthritis

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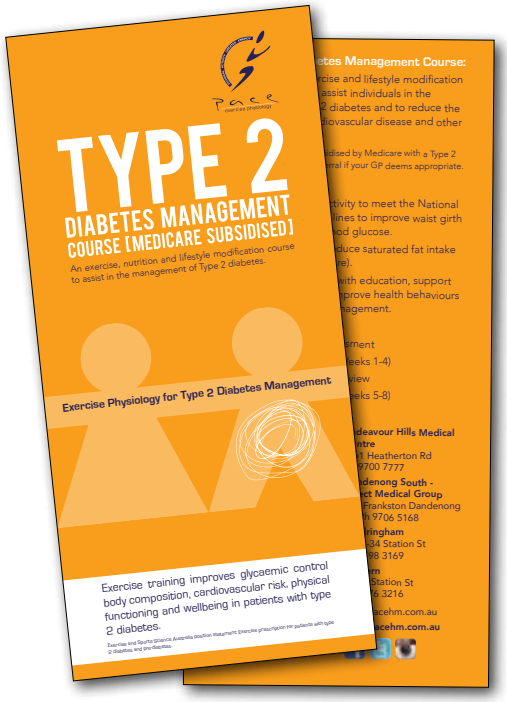
>> CHRONIC DISEASE MANAGEMENT CONTINUED

WANT TO KNOW MORE ABOUT OUR TYPE 2 DIABETES MANAGEMENT PROGRAM?

The Type 2 Diabetes Management program is a group based program, designed to equip you with the self-management strategies to better manage your type 2 diabetes. This program helps to facilitate long term behaviour change, to deliver significant and sustainable outcomes via education, accountability, and best practice exercise prescription.



PROGRAM GOALS;

1. To increase physical activity to meet the National Physical Activity Guidelines of Australia.
2. To provide participants with education, support, and strategies to help improve health behaviours and type 2 diabetes management/ blood glucose control.
3. To improve nutritional habits (specifically, reduce saturated fat intake and increase soluble fibre).
4. To improve health and wellbeing, to help you live your healthiest and happiest life.
5. To decrease the risk of associated chronic diseases such as cardiovascular disease and stroke.

Read more at www.pacehm.com.au or contact us today on info@pacehm.com.au

SLEEP

Just how important is it?

Do you get enough?

How can you improve it?

Sleep is IMPORTANT, and for most people the QUALITY and QUANTITY of sleep being achieved is inadequate…

If you sleep 5 hours a night your risk of INJURY is 60% higher compared to those who sleep 8-9 hours. For those playing at home, that's a MASSIVE number, and something we should pay attention to.

Whilst we all need DIFFERENT amounts of sleep (person dependant, age dependant, situation dependant, etc.), there are some hard and fast rules of how much sleep we should get.

A recent study showed that the PERCENTAGE of people who can survive on 6 hours or less per night without showing physical and cognitive impairment was 0%…

Now, before we stress you out for no reason, it is normal to wake 1-2 times during the night (it's an instinct from our cavemen days) but we should fall back to sleep without too much trouble. If you are waking more than this or finding it hard to get back to SLEEP, then it may be worthwhile looking at a few strategies to improve sleeping PATTERNS.

Note the above word – PATTERNS. Our body works on cycles and patterns, which are altered based on the DAILY ACTIONS and HABITS we create. If you want to improve your sleep patterns, make specific and consistent changes to your actions and habits.

TOP TIPS FOR SLEEP HYGIENE STRATEGIES:

1. No Screens 1-2 hours before bed. Try swapping TV for a book...
2. Set your iPhone to engage 'night mode' 2 hours before bedtime e.g. 8pm. This turns off the blue light. Blue light affects melatonin levels in our bodies, which prevents sleep from naturally occurring.
3. Get sunlight throughout the day. At least 15 minutes worth. Again, this affects melatonin levels but in a positive manner.
4. Move through out the day.
5. Complete parasympathetic breathing, meditation, gratefulness, or journaling (see earlier post on benefits of parasympathetic breathing on stress hormones).
6. Set up a dark room at 19-21 degrees for optimal sleep patterns.
7. Remove distractions in bed such as TV. The goal is to teach your body that when you go to bed you fall asleep.
8. Not falling asleep? Avoid lying there for more than 15 minutes, get up and go read until you feel tired before returning to bed to try again.

9a. Fall asleep and wake up at consistent times where possible i.e. 10pm bed time for 6am wake. Don't differ more than an hour on weekends where possible...

9b. Quality trumps quantity - If you are not sleeping well, try making your bedtime later and waking earlier. Slowly stretch out the quantity once the quality is there.

Side note: Suffer anxiety? Try leaving a note pad by your bed to jot down any worrying thoughts to help you remove them from your mind... Mindful vs. Mind Full.

HABITS

DID YOU KNOW THAT HABITS FORM OVER 60% OF YOUR DAY???

ARE YOU HABITS HELPING OR HARMING YOU???

WHAT'S YOUR BEST AND WORST HABIT???

Habits are a powerful tool, which we can use to help move the needle in the direction of our goals each day. For example, HYDRATION is an important factor in your health, the habit of consuming 500ml when you first wake up would be much more helpful than having a long black...

Habits do take time to develop, so we recommend trying to action only 1-2 changes at any one time. For example, if time management were a goal, developing the habit of only checking emails at 8am, 12pm, and 4pm would be a great way to increase your PRODUCTIVITY. This would take some conscious effort and short term pain to develop though...

SO WHERE DO WE START??

STEP 1: IDENTIFY YOUR GOAL.

- What is it that you want to achieve???

STEP 2: IDENTIFY HELPFUL AND HARMFUL HABITS.

- What good habits do you already have? Can we build on these?
- What habits are working against you? Can these be removed or reduced?

STEP 3: SELECT 1-2 HABITS TO FOCUS ON CHANGING.

- What's going to give you most bang for your buck?
- What's going to be achievable to get a win on the board?

STEP 4: "IF YOU WANT TO CHANGE YOUR LIFE, CHANGE YOUR DIARY..."

- Book the time in with yourself for when this habit will be actioned.
  *Actually write it in your diary, don't compromise this booking...
  I.e. Walk 15 minutes at 7am every morning.
- It's important that this time is the same every day for obvious reasons.

STEP 5: REPEAT, REPEAT, REPEAT...

- Socialise your goals, habits and actions to enlist the help of others to develop ACCOUNTABILITY.
- Develop supporting habits e.g. put your shoes out the night before, feed the dog when you finish the walk etc.

HEALTH AND WELLBEING

We exist to help you create your happiest and healthiest version of yourself…

Our accredited exercise physiologists work with you to develop the strategies required to achieve sustainable long term outcomes related to your health and wellbeing goals. These strategies are typically related to lifestyle change and habit development, exercise and movement routines, body management and rehabilitation, mindset and motivation, and nutritional changes.

We appreciate that everybody is different and each client presents with their individual goals and circumstances. In our initial assessment, we aim to get a clear picture of where you are now (Point A) and where you want to be (Point B). Secondly, we aim to identify potential barriers that will stop you from reaching your goals; these typically include time, motivation, lack of strategy development, routine etc. By identifying these barriers we can create strategies to ensure these roadblocks are minimised, supporting you through your journey as you progress from Point A to Point B.

RHEUMATOID ARTHRITIS

PATHOPHYSIOLOGY

Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune disease characterised by decline in joint health involving joint pain, inflammation, fatigue, increased incidence and progression of cardiovascular disease, and accelerated loss of muscle mass (rheumatoid cachexia). RA is most prevalent in individuals aged 40 years or older with the risk of developing RA being up to 5 times higher in women. RA is characterised by severe joint pain, reduced muscle strength, and impaired physical function. While the disease outcomes have improved with the implementation of drugs such as methotrexate and biologics, the disease is still progressive in nature with long-term joint damage and disability expected. This is due to severe inflammation of the synovium where there is a 3–100 times elevation of proinflammatory cytokines.

Systemic symptoms include early morning stiffness of affected joints, generalised afternoon fatigue and malaise, anorexia, generalised weakness, and occasionally low-grade fever. Joint symptoms include pain, swelling, and stiffness.

The joints which are primarily involved include the following:

- Wrists and the index (2nd) and middle (3rd) metacarpophalangeal joints (most commonly involved)
- Proximal interphalangeal joints
- Metatarsophalangeal joints
- Shoulders
- Elbows
- Hips
- Knees
- Ankles

BENEFITS OF EXERCISE

For those with RA, exercise improves activities of daily living (ADL) capacity, quality of life and reduction in risk of comorbidities. Exercise also prevents the vicious cycle of joint pain leading to joint stiffness, soft tissue contracture, diminished muscle strength and endurance, and loss of independence. Exercise can also help to:

- Improve energy levels
- Increase/maintain range of motion
- Reduce joint pain
- Increase bone density
- Increase muscle strength
- Prevention of heart disease
- Increase immunity
- Reduce fatigue
- Improve sleep patterns
- Improve emotional and mental wellbeing by reducing depressive symptoms
- Increase cardiovascular fitness

References

Ernest Choy (2012).Understanding the dynamics: pathways involved in the pathogenesis of rheumatoid arthritis. Rheumatology. 51 (5), 7-11.

Heine P.J. et al., Development and delivery of an exercise intervention for rheumatoid arthritis: Strengthening and stretching for rheumatoid arthritis of the hand trial. Physiotherapy 98 (2012) 121-130

Cooney, J. Law, R. Matschke, L. Andrew B. Lemmey, Moore, J. Ahmad, Y. Jones, J. Maddison, P and Thom, M. (2011). Benefits of Exercise in Rheumatoid Arthritis. Journal of Aging Research. doi: 10.4061/2011/681640

Geri B. Neuberger et al., Predictors of exercise and effects of exercise on symptoms, function, aerobic fitness, and disease outcomes of rheumatoid arthritis. 2007, 943-952

Ottawa Methods Group, Ottawa Panel Evidence-Based Clinical Practice Guidelines for Therapeutic Exercises in the Management of Rheumatoid Arthritis in Adults, Phys Ther. 2004;84:934–972

WHAT IS FIBROMYALGIA?

Amongst today's current population there are 3-6 % of individuals suffering from a complex rheumatic disease, 75-90% of those diagnosed are females. What is the name of this debilitating condition? Fibromyalgia Syndrome.

The exact cause of developing fibromyalgia is currently unknown. The condition presents as musculoskeletal pain and general body fatigue, sleep disturbance, headaches, memory impairment, anxiety, depression as well as digestive problems. This very complex disease was initially classified based on widespread pain for at least 3 months; that is, pain on the left and right hand side of the body as well as below and above the waist. Typically, fibromyalgia is known to affect 11 out of 18 tender point areas throughout the body. These areas are inclusive of the occiput, lower cervical spine, trapezius, supraspinatus, second rib, lateral epicondyle, gluteal, greater trochanter and the knee.

More recently, a subjective approach to pain (the Widespread Body Pain Index and a Symptom Severity Scale) that acknowledges memory issues, sleep disturbance, and fatigue has been used for diagnosis.

LIVING WITH FIBROMYALGIA:

Those who suffer from fibromyalgia are often left feeling frustrated and exhausted. The condition will impact levels of fatigue and muscle pain, which can result in extremely reduced physical strength of the upper and lower body, resulting in the inability to complete their activities of daily living. Often the individual can have difficulty with tasks such as walking down the street, taking the rubbish out, gardening or even cleaning. Additional issues associated with fibromyalgia are as follows:

- Sleep disorders
- Gastrointestinal issues
- Impaired cognitive function
- Psychiatric disorders (e.g. anxiety and depression)

It is important to note that the debilitating symptoms of the disease can in turn affect social surroundings of family, friends and work life, which may suffer as a result of the severity of the symptoms.

HOW EXERCISE PHYSIOLOGY CAN HELP:

Quality of life for those with fibromyalgia can be improved not only by medication but with exercise. An exercise physiologist will take a physical therapy approach with a goal to manage and improve pain, fatigue, muscle weakness, sleep and overall health. In the bigger picture this will increase quality of life.

Due to the high prevalence of wide spread pain throughout the body there is often inactivity amongst this population. Recent studies have explored the effects of exercise in conjunction with connective tissue massage and found that this may be a superior way of improving pain, fatigue and sleep. Research has also indicated restoration and maintenance of strength, aerobic capacity, mobility, balance and functional abilities will all benefit from a combined exercise and massage method. Not to mention regular exercise will positively impact a depressed mood and the overall perspective of pain.

Even though exercise is probably the last thing an individual with fibromyalgia might feel like doing, if completed regularly it has the ability to work wonders. Exercise will reduce pain and the amount of tender points throughout the body as well as increase strength and cardiovascular fitness which will improve the ability to complete daily tasks.

APPROPRIATE EXERCISES FOR THOSE WITH FIBROMYALGIA:

Individuals with fibromyalgia will benefit from a variety of regular, low impact exercise modes. To improve fitness and reduce pain and fatigue, aerobic exercise is best suited. This includes modes such as:

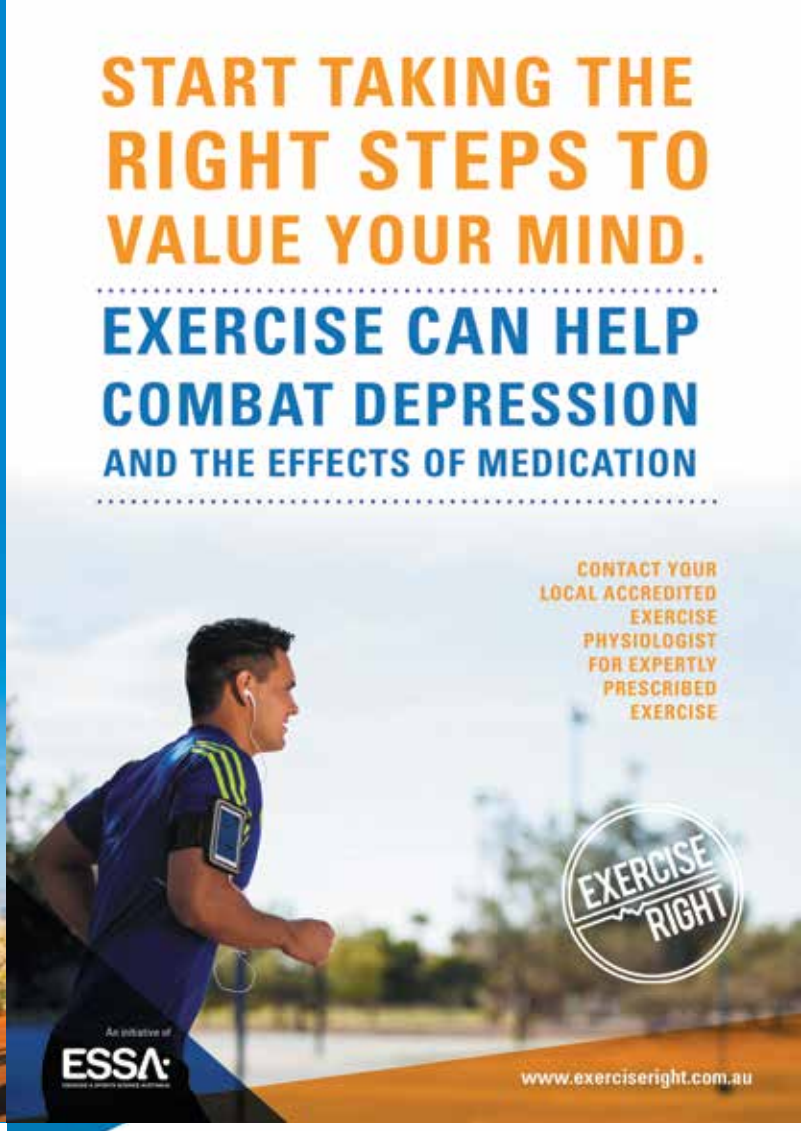
- Walking
- Swimming
- Water aerobics
- Cycling

As muscle weakness is a common symptom for those with fibromyalgia, it is important to strengthen major muscle groups of the upper and lower body that are responsible for completing daily tasks. This can be done by completing supervised resistance training with:

- Therabands
- Light weights
- Own body weight
- Cable/ gym machines

Research has also found that exercise that acts as a multicomponent intervention can be excellent for fibromyalgia. This type of exercise integrates the physical, psychosocial, emotional, spiritual, and behavioural elements affected as a result of the symptoms experienced with fibromyalgia. This includes modes such as:

- Tai Chi
- Yoga



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