EXERCISE & *Women's Health*

An eBook by

ESSA
Exercise & Sports Science Australia

FOREWORD

ESME SOAN

From puberty to pregnancy, menarche to menopause, exercise is a form of medicine and a hugely important modality to support women's health. One in two women in Australia are not sufficiently physically active, a statistic that is contributing to the rates of chronic disease burden for women.

'Women's Health' is an umbrella term, used to describe all manner of health conditions and life stages for women, from puberty, pregnancy, postpartum and menopause. Through each of these life stages, exercise has an important therapeutic application for preventative health. Exercise really is a form of medicine – research has shown that it begins even before birth! In utero, exposures to physical activity can even change phenotype expressions for children of exercising mums, showing that exercise in pregnancy has both short and long term positive health effects for mum and child!

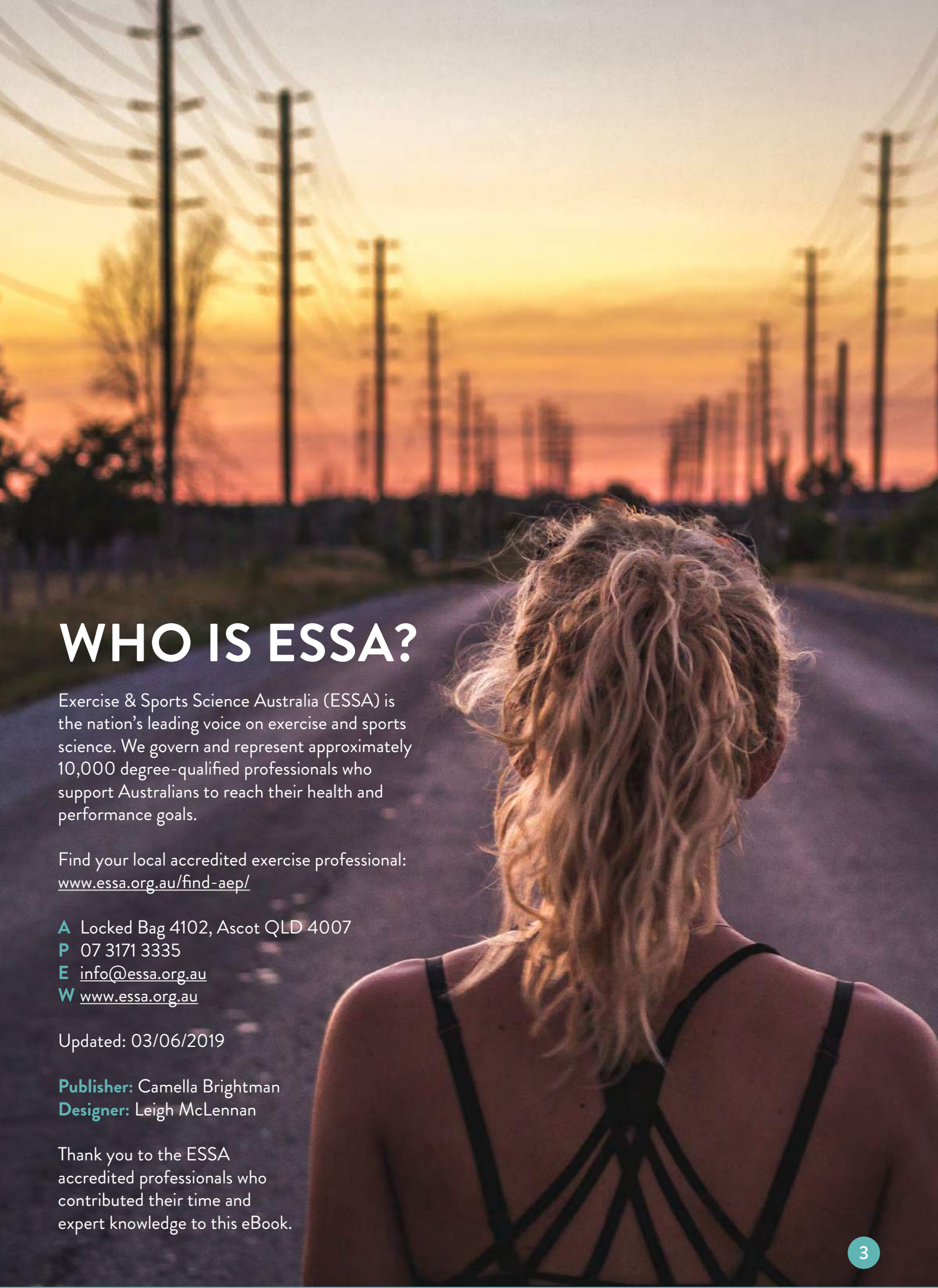
Exercising right through menopause can help with hot flushes, and reduce the risk of osteoporosis. Exercising right postnatally can help strengthen your pelvic floor and core and reduce your risk of incontinence or prolapse.

As fantastic as we know exercise can be for overall health indicators, barriers to women being active can be many and varied; from chronic pain, injury and incontinence, to childcare commitments, stigma and low self-esteem to exercise or participate in sport. With the assistance of an Accredited Exercise Physiologist (AEP) to help get women active, not only will her own health outcomes improve, but it will influence the health of the whole family.

Accredited Exercise Physiologists have so much to offer to the women's health scope of practice, helping women address the many barriers, whether mental, physical or societal, to being physically active. This eBook offers an insight to the many different health conditions that fall under the women's health umbrella that can be improved with the use of exercise as medicine, and the important role an Accredited Exercise Physiologist can play in helping women remain healthy and physically active.

So no matter your age, or prior experience, or injuries or abilities, add movement to your life ladies!

Esme Soan is an Accredited Exercise Physiologist at Pear Exercise Physiology: Pregnancy & Women's Health in Brisbane, and Women's Health Expert with ESSA. When not working as a clinician, she teaches multidisciplinary practice with The Women's Health Collective.



WHO IS ESSA?

Exercise & Sports Science Australia (ESSA) is the nation's leading voice on exercise and sports science. We govern and represent approximately 10,000 degree-qualified professionals who support Australians to reach their health and performance goals.

Find your local accredited exercise professional: www.essa.org.au/find-aep/

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Thank you to the ESSA accredited professionals who contributed their time and expert knowledge to this eBook.

CONTENTS

THE HEALTH OF AUSTRALIA'S WOMEN

As at June 2016, there were 12.1 million women living in Australia – making up 50.3% of the total population.

The Australian Institute of Health and Welfare (AIHW) offers a snapshot of their health:

3 IN 5 AUSTRALIAN WOMEN RATED THEIR OWN HEALTH AS EXCELLENT OR VERY GOOD.

In 2014–15, 58% of females (aged 15+) rated their health as excellent or very good.

1 IN 2 AUSTRALIAN WOMEN HAVE A CHRONIC DISEASE.

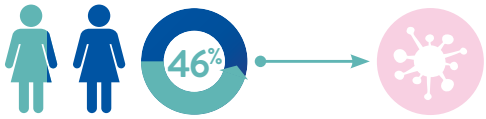
In 2014–15, 52% of women reported having one or more of 8 selected chronic diseases:

- arthritis
- asthma
- back problems
- cancer
- cardiovascular disease
- COPD
- diabetes
- mental health conditions

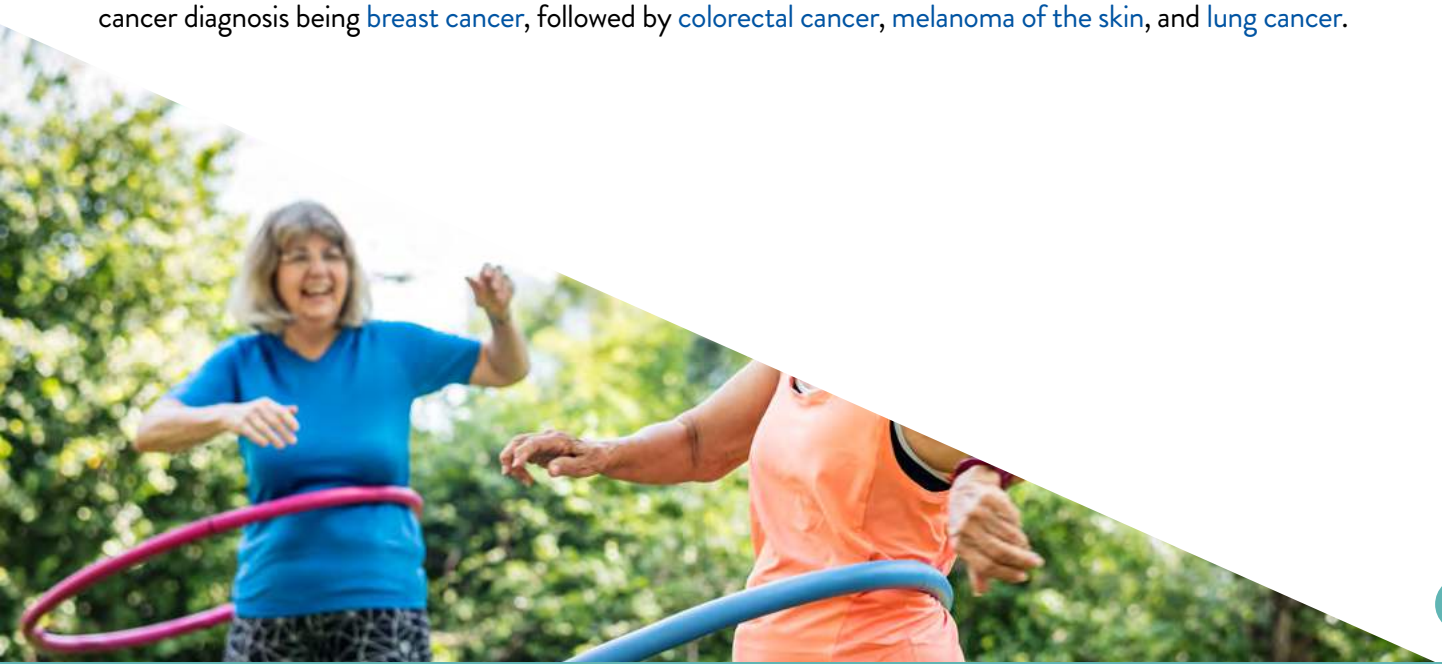
The prevalence of these chronic diseases varies with age:

- 87% of women aged 65 and over have a chronic disease, compared with 37% of females aged under 45.

IT IS ESTIMATED THAT WOMEN ACCOUNT FOR 46% OF ALL NEW CANCER CASES.



The risk for Australian women being diagnosed with cancer before their 85th birthday is 1 in 2, with the most common cancer diagnosis being breast cancer, followed by colorectal cancer, melanoma of the skin, and lung cancer.



NEARLY 1 IN 2 AUSTRALIAN WOMEN HAVE EXPERIENCED A MENTAL HEALTH PROBLEM.

Beyond Blue highlight that while good mental health is essential to the overall health of both men and women, women experience some mental health conditions at higher rates than men.

In fact, around 1 in 5 women in Australia will experience depression and 1 in 3 women will experience anxiety during their lifetime. Women also experience post-traumatic stress disorder (PTSD) and eating disorders at higher rates than men.

6 IN 10 AUSTRALIAN WOMEN ARE OVERWEIGHT OR OBESE.

Excess body weight, known as overweight and obesity, is a risk factor for many conditions, including cardiovascular disease, high blood pressure, type 2 diabetes, sleep apnoea and osteoarthritis.

In 2014–15, almost 6 in 10 women in Australia (56%) were overweight or obese.

WOMEN AND PREGNANCY

Women are giving birth later in life. The average age of all women who give birth continues to rise. It was 30 in 2016, compared with 29 in 2006.

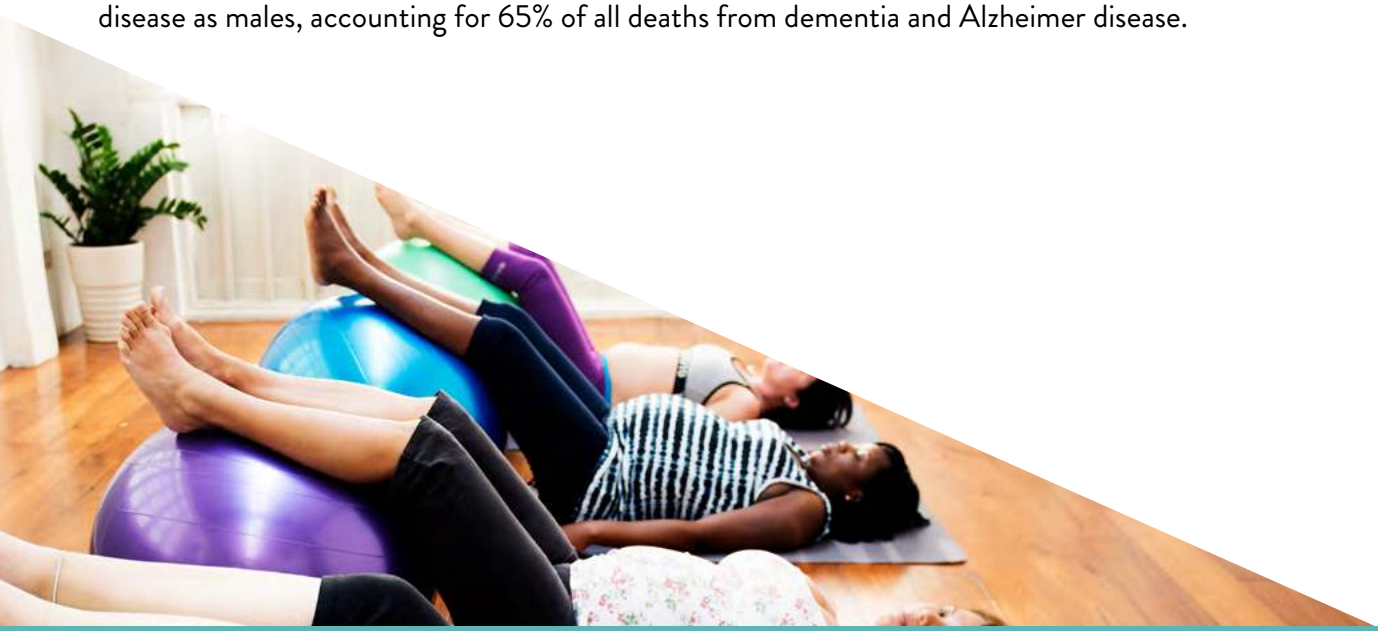
12% of women who gave birth in 2016 had gestational diabetes.

Almost 1 in 2 mothers were overweight or obese at their first antenatal visit. Obesity in pregnancy contributes to increased risks of illness and death for both mother and baby. Pregnant women who are obese have an increased risk of thromboembolism, gestational diabetes, pre-eclampsia, post-partum haemorrhage (bleeding), and wound infections.

BURDEN OF DISEASE

Women experience a greater proportion of the total disease burden from blood and metabolic disorders (59%), neurological conditions (58%) and musculoskeletal conditions (55%). Nearly half (44%) of the burden of disease in women is from cancer, musculoskeletal conditions, and cardiovascular disease.

The leading cause of death was coronary heart disease, followed by dementia and Alzheimer disease, and cerebrovascular disease. Females were almost twice as likely to die from dementia and Alzheimer disease as males, accounting for 65% of all deaths from dementia and Alzheimer disease.



WHY IS EXERCISE IMPORTANT FOR WOMEN?

The great news is, that although 56% of Australian men and women are not participating in sufficient physical activity, 1 in 2 Australian women aged 18–64 are getting enough exercise.

In 2014–15, 46% of women aged 18–64 exercised sufficiently (completing at least 150 minutes of physical activity over 5 or more sessions each week).

Exercise rates were highest among women aged 25–34 (51%) and lowest among women aged 55–64 (41%).

1 in 4 (23%) women aged 65 and over were sufficiently active (completing at least 30 minutes of exercise on most days each week).

PROTECT YOUR MENTAL HEALTH

The link between regular physical activity and positive mental health for women has been well documented. Exercise helps to both manage many mental health conditions, such as depression and anxiety, and has a positive effect on mood and overall mental health.

SUPPORT AGEING

As women age, exercise becomes even more crucial for maintaining health and movement. Half of all Australian women over 60 will suffer a fracture related to osteoporosis. Weight bearing exercise can help to improve bone health and reduce the risk of fractures.

PREVENT CHRONIC CONDITIONS

Half of Australian women are affected by at least one of eight major chronic diseases. Exercise can help to reduce the risk of developing a range of chronic conditions, including cardiovascular disease, breast cancer and diabetes.

Regular exercise not only improves your physical and mental health, but it reduces your risk of chronic disease and premature death. This means you'll be happier, healthier and around for longer to spend quality time with your loved ones.

HOW MUCH SHOULD YOU EXERCISE?

In line with Australian physical activity recommendations, it's recommended that women undertake 150 to 300 minutes (2 ½ to 5 hours) of moderate activity or 75 to 150 minutes (1 ¼ to 2 ½ hours) of vigorous intensity physical activity each week. This can include:

- biking
- walking
- swimming
- jogging

It's also recommended to fit in at least two strength sessions every week, and limit long periods of sitting.

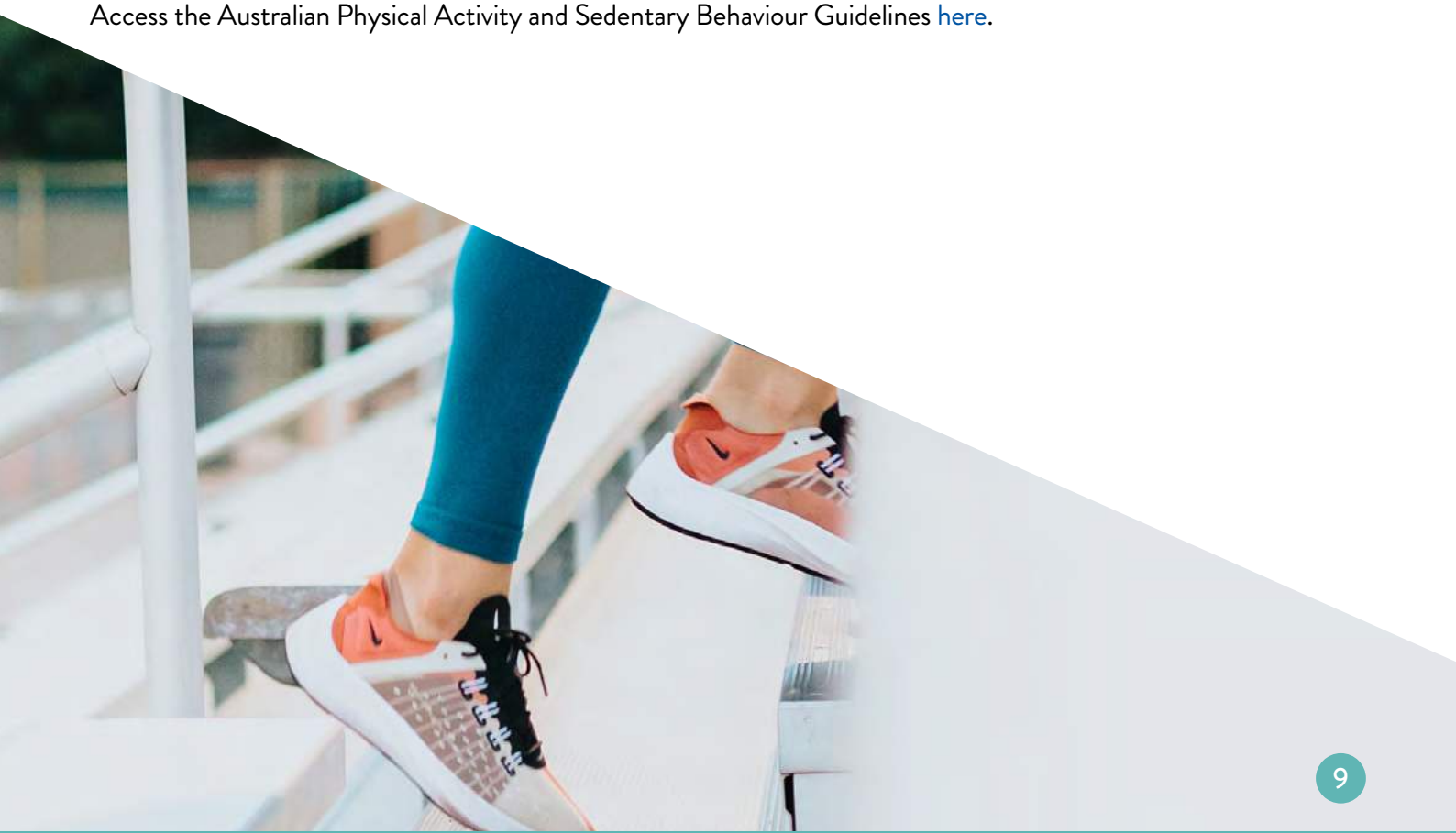
Understanding exercise intensity is important. A quick way to test your exercise intensity is using the talk test. When exercising can you:

- Talk comfortably and sing comfortably? You're probably exercising at a **light intensity**.
- Talk comfortably but not sing? This is likely to be **moderate intensity** exercise.
- Neither talk nor sing comfortably? You're working hard at a **vigorous/high intensity**.

Consistency is key – try to be physically active on most, if not ALL days.

For beginners: start with 10 minutes of light activity, slowly boosting exercise intensity as it becomes easier.

Access the Australian Physical Activity and Sedentary Behaviour Guidelines here.



WHO ARE THE EXERCISE PROFESSIONALS?

Accredited Exercise Physiologists (AEP) are qualified allied health professionals that hold a minimum of 4-years of university training. AEPs are equipped to design, deliver and evaluate safe and effective evidence-based exercise interventions to individuals at high risk of developing, or with existing, chronic and complex conditions and injuries, including any conditions for which there is evidence that exercise can improve the client's clinical status.

By speaking with an Accredited Exercise Physiologist who works and specialises in women's health, they can provide you with a program suitably tailored to your own level of fitness, and assist you with your health or any medical conditions or injuries you may have.

To get in contact with your local accredited exercise professional, visit the ESSA website: www.essa.org.au or speak with your GP for a referral to an Accredited Exercise Physiologist.

EXERCISING FOR SAFE WEIGHT LOSS

In 2011-12, over 2.3 million Australians aged 15 years and over reported to be on a diet to help lose weight or for another health reason. A majority of these Australians were women. Unfortunately, women are also more likely than men to have higher rates of body dissatisfaction, poor body image, engage in riskier health behaviours such as extreme dieting and purging, and report depression and anxiety associated with their weight.

We have become a society obsessed with losing weight through extreme measures, fad diets and magic pills, which may be why a majority of weight loss efforts fail long term. Due to these extreme measures, exercise is not typically recommended, yet, exercise has been shown to play a crucial role not only with weight loss but for our overall physical and mental health. Regular physical activity is important for the prevention of chronic diseases, such as cancers and diabetes, and assists with the management of anxiety and depression. Let's take a closer look on how to make exercise and weight loss a positive experience.

Your mindset towards exercise or physical activity is a great determinant towards your success or failure with weight loss. If you consistently see exercise as difficult or as a punishment, then you're not likely to stick to a plan, and who would if you say you hated it. If you're a self-confessed non-exerciser, rather than feeling confined to traditional forms of exercise, such as walking/running, the gym or swimming, try other forms! Dancing, horse riding or stand up paddle boarding all require some sort of physical exertion and can be extremely fun. Go out and try something new, you may even make some great workout friends along the way, which will help your weight loss even further!

Other ways to improve your relationship towards exercise can be focusing on the positives you receive from it, such as increased moods, confidence, energy, and strength, as well as lowering your risk for chronic diseases. If you're still finding it difficult to stick to your new exercise plan, see my top 10 tips for some extra help.

TOP 10 TIPS

1. **Ask yourself why.** If you've ever tried to lose weight before there usually comes a moment in time when you ask yourself why you're doing this. So why is losing weight important to you? What will you be able to do once you lose weight? Is it to have more energy to play with your kids, buy an outfit in a particular shop, or climb stairs without getting puffed? Finding your why will enable you to stick to your plan when the going gets tough.

2. **Set small, incremental goals.** Sometimes we get overwhelmed by the weight we'd like to lose so it's always recommended to break down the goal into smaller amounts. Particularly as the recommended weight loss is 0.5-1kg maximum per week.

3. **Track your progress.** Weight loss progress can seem slow so it's recommended to take as many measurements as you can to help you stay on track. Many people tend to only use their weight on a scale but you should also take body measurements, photos and perform a fitness test.

4. **Keep a food and fitness diary.** Many weight loss studies have shown that when people track their food and physical activity throughout the day or week it resulted in higher and more sustainable weight loss. This was thought to be due to a greater awareness.

5. **Recruit friends and family.** Let's face it, exercise can be tough, but when you do it with other people it has been shown to increase adherence as no one wants to be the one that cancels.

6. **Use incentives.** Incentives are a great way to stay on track as you reach milestones. They can range from scheduling a massage, buying a new outfit, or even new exercise gear.

7. **Progress not perfection.** When you're first starting out, you can get caught up in trying to do everything perfectly, but sometimes this isn't sustainable. Instead, focus on positive changes you've made; did you cut out your soft drink habit or are you taking the stairs rather than the lift? All of these positive health behaviours will help you reach your goal.

8. **Plan for failure.** Let's face it, life happens, and when it does it's best to be prepared. Put out your clothes the night before, pack a healthy lunch, and schedule in your exercise time so you can plan out your week.

9. **Action, action, action!** Unless you actually move your body you won't receive the great rewards. Any type of physical activity will help get you to your goal. So if you didn't make it to the gym today, ask yourself what other activities you can do. Make sure you get up every 1-2 hours and walk around for 5 minutes, take the stairs, park further away, or set a goal of doing 100 squats off your chair throughout the day. Every bit counts!

10. **Seek out the professionals for help.** Speak to an exercise professional such as an Accredited Exercise Physiologist on how to kick start your exercise goals. Not only can they provide motivation but they are the experts of exercise and can tailor a plan specific to you making you more likely to stick to it.

Expert Contributor: *Phoebe Roberts, Accredited Exercise Physiologist*

EXERCISING FOR BREAST CANCER

The diagnosis of breast cancer brings challenges, lots of emotions, time off work, a new routine and a range of side effects. The last component of treatment that an individual is likely to consider is regular exercise, however exercise is an integral part of management of breast cancer during and after treatments have ended.

In 2018, COSA, the Clinical Oncology Society of Australia, called for exercise to be embedded as part of standard practice in cancer care and to be viewed as an adjunct therapy that helps counteract the adverse effects of cancer and its treatment. Best practice cancer care also included referral to an exercise professional with experience in cancer care, such as an Accredited Exercise Physiologist.

Regular physical activity will assist with:

- Maintenance of lean muscle mass
- Maintenance of Bone Mineral Density (BMD)
- Manage and reduce cancer-related fatigue
- Improved mood
- Maintaining aerobic conditioning
- Manage flexibility and mobility, especially after surgery and reconstructive surgeries
- Improve appetite and reduce nausea (a common side effect of chemotherapy)
- Enhanced outcomes during and post-treatment
- Reduction in overall side effects experienced
- Improved sense of being connected and social interaction

HOW MUCH EXERCISE?

The amount and duration of exercise will depend on the individual, their treatment and ability to engage in regular physical activity. Just remember, something is better than nothing.

Overall, the general guidelines for individuals with breast cancer are to engage in 30 minutes of exercise on most (5+) days per week. This can be accumulated in 10 minute blocks throughout the day. The intensity of the exercise is recommended to be moderate. This means a slight increase in breathing rate, heart rate and body temperature.

You will still be able to maintain a conversation with a friend though!

WHAT TYPE OF EXERCISE?

Firstly, find something that you enjoy. Use this time as your time away from all the medical appointments, scans, results and waiting rooms! Any type of exercise is better than none. So maybe try out a few different things and see what feels best for you. It might be a walk with a friend, a yoga or Pilates class, or a weekly session with an Accredited Exercise Physiologist.

WHAT SHOULD I BE CAREFUL OF?

Lymphedema is swelling of the arm or upper limb which can occur in women who have had lymph nodes removed or damaged during surgery. The good news is that exercise and regular movement can reduce your risk of developing lymphoedema as well as managing symptoms for those who do have lymphoedema.

Remember, gradual implementation of exercise is key and will assist in your recovery on many levels. Weight gain is very common after diagnosis which can be related to treatment options as well as lack of activity. Regular physical activity will not only help you to manage your weight but also improve your lean muscle mass so that you are able to maintain your strength and function.

MOTIVATION AND WHERE TO START?

- Remember, start small. **Set realistic goals for yourself.**
- It might help to have an exercise buddy or friend or family member who joins you or just checks in on how you are going.
- Set a reminder on your phone or place a reminder quote on your fridge.
- Keep a diary of how you are feeling. An exercise or mood diary can be satisfying to see you commitment but also provide you with insight on how physical activity is affecting other areas of your life and well-being.
- Research suitable groups and sessions in your local area and community.
- Visit the Breast Cancer Network Australia website for more information on staying fit.

WHAT MIGHT BE SOME OF THE BARRIERS AND WHAT SHOULD I DO ABOUT THEM?

Finances

It is important you find an exercise option that suits your budget. This will ensure a sustainable approach to physical activity as well as reduce any extra stress you may have relating to finances.

- Opt for the outdoors! It's free! Try going for a walk or jog in the local park or completing some body weight exercises in the garden.
- Research cost-effective programs in your local community. Most local councils offer walking groups, tai-chi or yoga programs which are either free or very low cost options.

You may be eligible for a rebate from your Private Health Insurance for any sessions provided by an Accredited Exercise Physiologist. This is something to be mindful of when researching suitable providers and locations.

Side Effects of Treatment

Fatigue and nausea are two big side effects experienced by those undergoing cancer treatment. Research shows that by even engaging in a small amount of structured physical activity, these side effects can be lessened and in some case even provide an energy boost. Try and choose a time to exercise which is most comfortable for you. For example, if you are often more fatigued or nauseated in the morning, opt for an afternoon exercise regime.

WHAT SORT OF PROGRAMS MIGHT SUIT ME?

Many Accredited Exercise Physiologists in the community may run or have access to targeted exercise groups for you to try. Some of these programs may also be low-cost options to make access easier for you and those in a similar position.

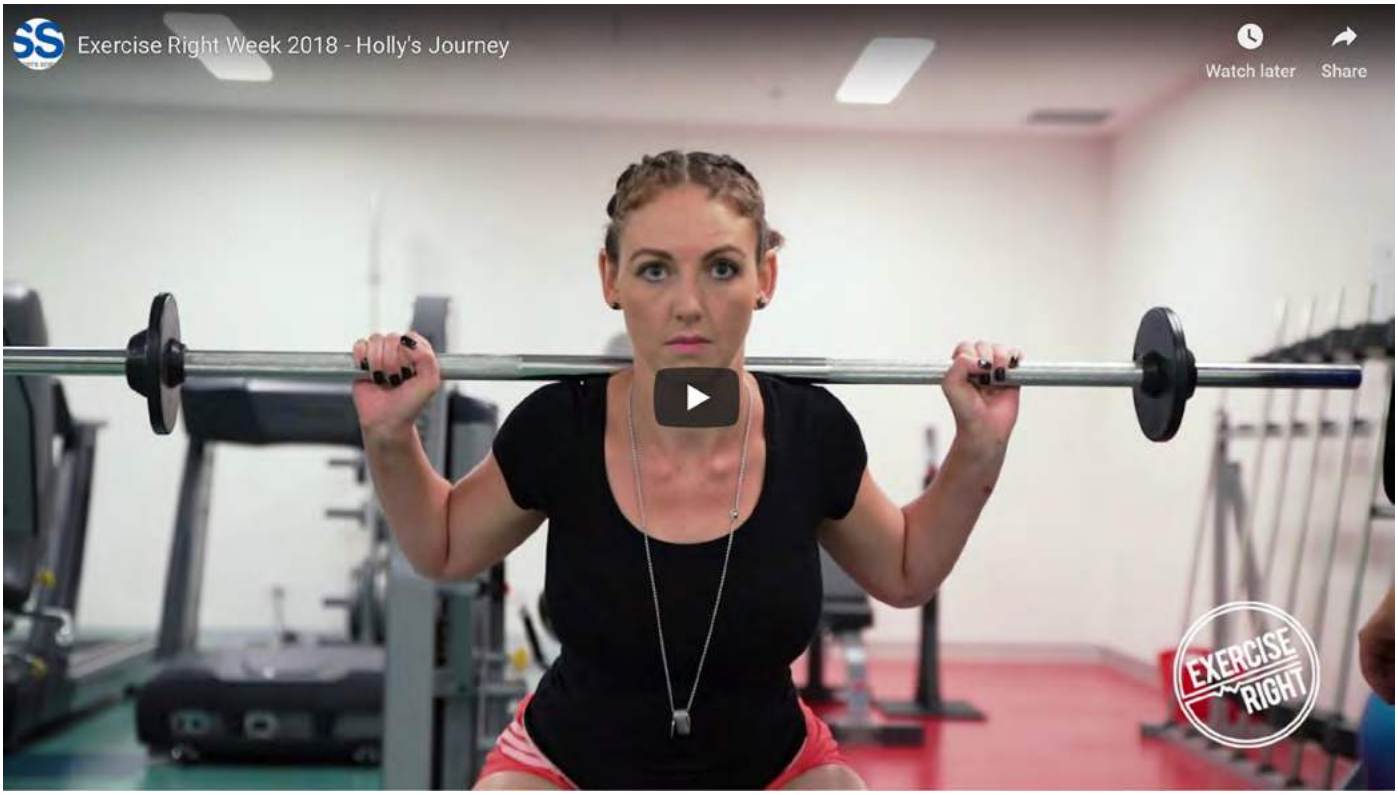
Expert Contributor: *Ismini Dandanis, Accredited Exercise Physiologist*

HOLLY'S EXERCISE JOURNEY WITH BREAST CANCER

At 31, Holly was diagnosed with breast cancer. Shortly after her diagnosis, she started chemotherapy treatment and underwent a double mastectomy.

Holly shares her exercise journey with us and how sessions with her Accredited Exercise Physiologist made her feel 'amazing' and 'like her old self again', physically and mentally.

Holly encourages everyone going through cancer treatment to be physically active; "*to be in control of something is a positive part of recovery that anyone can do*."



EXERCISING WITH YOUR MENSTRUAL CYCLE

There are four stages of the menstrual cycle:

1: Menstruation – 2: Follicular – 3: Ovulation – 4: Luteal

The start of your cycle is menstruation and the first half of your cycle is called the follicular phase. This phase runs from approximately day 1 of menstruation to approximately day 14 which is then the ovulation phase. Your body is not a clock, so these days are an approximate and change month-to-month dependant on stress, sleep and caloric intake.

In the follicular phase, we can call it the 'low' hormone phase. This means a lower body temperature and lower levels of progesterone and estrogen before ovulation.

The ovulation phase is where your oestrogen peaks and a hormone called Follicle Stimulating Hormone (FSH) and an egg is released. This signals the beginning of the second half of your cycle called the luteal phase.

Oestrogen can affect your training as it increases your ligament laxity, meaning you can be at a higher risk of injury, especially subluxations and knee injuries. Once the egg has been released from the ovum, the corpus luteum, which is the 'shell' in which the egg matured in the ovary, starts releasing a hormone called Luteinising Hormone (LH).

Hormones such as LH, oestrogen and progesterone are high in this phase. Luteinising Hormone causes central nervous system fatigue and a higher body temperature, and progesterone is catabolic, meaning it can slow down recovery of muscles.

LADIES, HERE IS WHAT YOU NEED TO KNOW ABOUT TRAINING AND YOUR MENSTRUAL CYCLE:

» Our menstrual cycle has a huge influence on a females metabolic state and exercise results
- **The follicular phase** in our cycles is when women should focus on progress – this is characterised by a higher tolerance for pain and increased levels of endurance. During this time, our insulin sensitivity also increases hence allowing us to use more carbohydrates to fuel the session. This is the best time for HIIT training and sprinting.
- **The ovulation phase** in our cycles is when women are more prone to injury but you will also notice that strength levels will still be high.
- **The luteal phase** in our cycles is when the body will rely on more fat as a fuel source, meaning our body temperatures will be higher, and in addition to this, you may be retaining excess water due to PMS increases in the cortisol, thus increasing sodium levels and causing retention. During this phase, doing workouts that utilise fat as fuel is a better choice; this is also a good time for active recovery or de-loading in strength training.

If you are wanting to start a new exercise program, or have any concerns about exercising suitably for your menstrual cycle, contact your local Accredited Exercise Physiologist.

Expert Contributor: *Kitty Chao, Accredited Exercise Physiologist*

EXERCISE AND FEMALE SEXUAL DYSFUNCTION

WHAT IS FEMALE SEXUAL DYSFUNCTION?

Female sexual dysfunction (FSD) affects approximately 40% of women. It is defined by the various ways in which an individual is unable to participate in a sexual relationship as she would wish. FSD is a very complex and multi-faceted disorder due to a woman's perception on sex, comprising of anatomical, psychological, physiological, and social-interpersonal components.

There are multiple classifications of FSD: sexual desire disorder, sexual aversion disorder, sexual arousal disorder, sexual pain disorders, and female orgasmic disorders.

WHAT CAUSES FEMALE SEXUAL DYSFUNCTION?

There are a variety of physical and mental factors that can contribute to the onset of FSD.

PHYSICAL FACTORS:

- Vaginal atrophy
- Trauma
- Chronic conditions (eg. Endometriosis, Vulvodynia, pelvic pain)
- High-tone pelvic floor dysfunction
- Increasing age
- Pregnancy
- Cardiovascular disease
- Diabetes
- Cancer survivors

MENTAL FACTORS:

- Depression and use of anti-depressants
- Anxiety
- Guilt and/or shame
- Past sexual trauma or abuse
- Poor interpersonal relationship with partner
- Body image issues

EXERCISE CAN HELP TREAT FSD!

20 to 30 minutes of high intensity exercise approximately half an hour before sexual interaction has been shown to increase sexual arousal in FSD. This is attributed to the increase in sympathetic nervous system (SNS) activity. The SNS is our "fight or flight" response, increasing blood flow, dilating pupils, accelerating heart rate and increasing arterial blood pressure. This increase in SNS activity from exercise has the same effects seen during the later stages of female sexual arousal.

The pelvic floor muscles (PFM) also play a role in normal sexual function. They have the potential to increase lubrication, arousal, orgasm, and desire. If PFM are overactive, it can inhibit relaxation and sometimes cause contraction where relaxation is required, potentially causing painful intercourse. Alternatively, if PFM are underactive and cannot contract, incontinence and pelvic organ prolapse may result, both of which are contributing factors to FSD.

Regular exercise combined with PFM exercises have also been shown to assist in sexual satisfaction indirectly by preserving autonomic flexibility, benefiting cardiovascular health and mood.

When it comes to mental health, it has been well documented that exercise has a positive impact on depression, anxiety, and body image, all of which can increase sexual well-being.

Exercise causes a reduction in anxiety and increases blood flow and oxygen to the brain. This causes an elevated mood and decreases the negative thought patterns associated with FSD. Exercise also encourages feelings of self-efficacy and a shift from external to internal locus of control. This increases the feeling of having control over the issue.

Yoga, meditation and breathing exercises to help to relax the muscles and the mind are also beneficial.

WHAT NOW?

- Consult your GP or obstetrician-gynaecologist if you are experiencing pain, vaginal bleeding or have any other concerns.
- Consult an Accredited Exercise Physiologist to prescribe safe, effective, and individualised high intensity exercise, PFM exercise, and relaxation exercise.
- Exercise regularly to prevent comorbidities that may worsen FSD, assist in treating depression and anxiety, and preserve SNS flexibility.
- Seek help from a sex therapist/psychologist to assist in psychological factors.

If you want to use exercise to help manage FSD, talking to an Accredited Exercise Physiologist is a great place to start. To find one in your area, click here.

Expert Contributor: *Kiara Roscio, Accredited Exercise Physiologist*

EXERCISING FOR PCOS

Have you been gaining lots of weight, yet haven't changed your diet? Are your periods irregular or absent altogether? Is your skin breaking out like crazy? These are just a few signs that you may be suffering from Polycystic Ovarian Syndrome (PCOS), a hormonal condition that affects up to 18% of women. However, diet and exercise can be extremely helpful in treating the symptoms so you can lead a healthy, happy and fertile life.

HOW PCOS AFFECTS YOUR BODY

- **Excess testosterone** – we all produce some testosterone, but too much can prevent ovulation and change your menstrual cycle.
- **Insulin resistance** – your body has to produce much more insulin than normal to keep blood sugar levels stable. Excess insulin floating around also increases testosterone production and can lead to:
  - **Reduced fertility**
  - **Irregular or absent periods**
  - **Excess hair on your body and face** (hirsutism)
  - **Less hair on your head** (alopecia)
  - **Changes in your skin**, such as acne, or darkened skin patches
- You may also notice a **decline in mental health**, with symptoms such as low self-esteem, body image concerns, or depression and anxiety from all these physical changes that arise after diagnosis.

But there's good news! A lot of these signs and symptoms can be improved with a few tweaks to your lifestyle, particularly with exercise. Here are the best types of exercise to do and how they can help.

1. CARDIO

Good for reducing insulin resistance, boosting fertility, stabilising mood

Moderate exercise like brisk walking, jogging, cycling, or swimming are all great activities that can help with PCOS. This type of exercise increases your body's sensitivity to insulin, which reduces your risk of cardiovascular disease and type 2 diabetes. Doing 30 minutes or more a day can also help with weight management, symptoms of depression and anxiety, as well as improving frequency of menstrual cycles and ovulation. And if you're about to start IVF, regular light exercise can boost your reproductive success.

2. STRENGTH TRAINING

Good for reducing insulin resistance, increasing metabolic rate, improving body composition (more muscle and less fat tissue)

Bodyweight exercises like squats, push-ups, or tricep dips improve the function of insulin in your body, but can also boost your metabolism by building more muscle mass. Don't worry though; you won't bulk up unless you're taking steroids! More muscle simply means burning more calories while exercising, but also throughout the day, even at rest. Combining resistance moves with cardio exercise is the best way to ensure you're building a lean body, achieving a healthy BMI, and reducing your risk of chronic diseases like type 2 diabetes.

3. INTERVAL TRAINING

Good for increasing cardiovascular fitness, decreasing waist circumference, and achieving a healthy BMI

Intervals involve swapping between short bouts of high intensity work and lower intensity recovery. It's a time efficient way of boosting your cardiovascular fitness, with extra benefits for PCOS. Going hard on the spin bike burns bucket-loads of calories, and reduces abdominal fat more effectively than say, a brisk walk. This can help you achieve a 5-10% weight loss, which studies show can decrease PCOS symptoms by reducing excess testosterone and improving insulin resistance.

4. CORE STRENGTH

Good for general well-being and injury prevention, preparing your body for pregnancy

Being above your ideal weight can cause lower back pain and poor posture, so including core training in your program is essential. These muscles support the spine and learning how to switch them on ensures you don't injure yourself during exercise. Also if you're trying to conceive, start training your pelvic floor muscles! These muscles are also part of your core and help prevent incontinence, boost sexual health, and improve pelvic stability to help support a healthy pregnancy.

The most effective exercise is the one you can keep up with, so choose something you enjoy! Seeking help from an Accredited Exercise Physiologist is a great way to guarantee you're exercising right for your condition. They can provide a tailored exercise program as well as lifestyle advice and support to help you reach your health and well-being goals.

Expert Contributor: *Sarah King, Accredited Exercise Physiologist*

Access the **International evidence-based guideline for the assessment and management of polycystic ovary syndrome 2018** here.

EXERCISING FOR ENDOMETRIOSIS

Endometriosis, also known as 'endo', is a chronic health condition affecting one in ten women worldwide, yet unfortunately there is little information available around how exercise can help manage and improve the painful symptoms associated with an endo diagnosis.

Exercise may be the last thing you feel like doing, and there are some inappropriate exercises that may worsen your current symptoms, but returning to exercise post-diagnosis can be important for both your physical and mental health!

WHAT IS ENDOMETRIOSIS?

Endometriosis is a gynaecological condition where endometrial-like tissue grows outside the uterine cavity. We say endometrial-like, as this tissue is not identical to the cells found within the uterine cavity, however it has a lot of similar properties.

Endometriosis is fuelled by the hormone oestrogen, however we are still learning and discovering exactly what causes this tissue growth. This tissue can attach itself anywhere within the pelvic and abdominal cavity, with reports of endometriosis even found on the diaphragm (though this is very rare)! Unfortunately, the human body is not equipped to remove these tissue growths, and they continue to act as endometrial-like cells, and with every menstrual cycle, scar tissue and adhesions can form through the release of oestrogen. This can cause a wide range of symptoms, including inflammation, bloating, and pelvic pain and cramping. Currently, the gold standard diagnosis for endometriosis is a laparoscopy or key-hole surgery, and as a result, starting exercise following this surgery can be a daunting prospect.

BEST EXERCISES TO START WITH POST-ENDO DIAGNOSIS:

Regular physical exercise can have protective effects against diseases like endometriosis that involve inflammatory processes since it causes an increase of the anti-inflammatory and antioxidant markers within the body, and also acts by reducing oestrogen levels, making it a great idea to incorporate exercise into your recovery and disease management.

The pain and discomfort associated with endometriosis can cause a guarding mechanism within the body – where the body braces to protect itself from pain. This bracing can affect the pelvic floor, abdominal wall and hip flexors – the anterior side of the body.

So firstly, when resuming exercise, it is important to first focus on the lengthening and strengthening of these muscle groups. You can't strengthen a tight muscle! Exercises based around the principles of Pilates and yoga can be fantastic to help these muscles release or stretches such as seated glute stretch, seated hip flexor stretch and a wall side bend stretch can really help to release those muscle groups.

WHAT NEXT

It is great to then progress to reconnect with your core and the muscles around the pelvis – the pelvic floor and glutes! Gentle progression into resistance-based exercises to start activating the glutes include exercises such as:

- Clams or side lying leg raises
- Sit to stands
- Glute bridging with theraband

These muscles help to support the lumbo-pelvic region of the body, so gradually adding in strengthening exercises can help manage your symptoms by balancing out that bracing and tightness through your anterior core muscles.

Going for a gentle walk for 30 to 60 minutes can always be a fantastic way to get back into the routine of regular exercise, and is a great addition to the above exercises.

SOME EXERCISES TO AVOID FOLLOWING AN ENDO DIAGNOSIS:

- Sit-ups and crunches
- High-impact exercises e.g. running/burpees

That's not to say you can never return to high-impact exercise, however your body will require some rest and recovery to allow itself to heal while reducing these guarding postures!

It is always best to start slowly when experiencing pain or discomfort, or after surgery. It is always best to seek the guidance of an Accredited Exercise Physiologist to help return you to the exercise that you love to do – and help you to manage your symptoms moving forward!

Expert Contributor: *Brittany Cogger, Accredited Exercise Physiologist*

EXERCISING DURING PREGNANCY

What an exciting (not to mention worrying, stressful, anxious and busy) time if you are expecting. A common concern of expectant mothers is – is it safe to exercise throughout my pregnancy?

It is always recommended to speak with your doctor or obstetrician before commencing a new exercise regime or continuing with exercise throughout your pregnancy. Once given the all clear, your next best point of call is an Accredited Exercise Physiologist. All Accredited Exercise Physiologists are trained to be able to prescribe safe and suitable exercise throughout your entire pregnancy. An Accredited Exercise Physiologist is your best resource to advise you on what to do and what not to do with your exercise regime whilst you are expecting.

WHY SHOULD YOU EXERCISE DURING PREGNANCY

Exercise may be the last thing you are feeling like doing whilst battling nausea and fatigue, amongst a host of other symptoms, however it is one of the best things that you can do for the health of you and your baby. Exercise is a great way to prevent gestational diabetes and excessive weight gain; improve your energy and mood; keep your body strong (in preparation for lifting your new baby!); help you sleep well; and prepare you for labour.

Exercise is also a great way to prevent and treat back and postural pain associated with changes in body shape that occur with pregnancy. Back pain is common and can be related to the changes in centre of gravity which occur as baby moves forward, causing an increased arch (also known as lordosis) in the lower back. Postural or thoracic pain can also be experienced as the breasts increase in size and consequently cause the shoulders and mid back area to slump forward.

WHAT TYPES OF EXERCISE SHOULD YOU DO WHILE PREGNANT

'Pregnancy Pilates' is one of the best forms of exercise to tackle both back and postural pain, as well as strengthen the core and pelvic floor, stretch tight muscles and assist to relieve generalised muscular aches.

Other safe options for physical activity include walking, stationary cycling and aquatic/water exercise. If given the all clear by your doctor, these gentle forms of exercise can often be continued throughout the entire pregnancy.

Not all types of exercise are safe throughout pregnancy, so again, it is always recommended to seek the advice of an Accredited Exercise Physiologists to avoid doing more harm than good. A small example of exercises to avoid include sit-ups or crunches, contact sports, activities which increase your risk of having a fall, ballistic exercises (i.e. bouncing or jumping), and exercises lying on your back.

HOW MUCH IS ENOUGH

The current recommendation is that pregnant women aim to meet the prescribed physical activity levels of the Australian Physical Activity Guidelines, which is 150 minutes of moderate intensity or 75 minutes of vigorous intensity exercise a week, or a combination of both, using the 'talk test' (page 10) as an intensity guide. It is important to consider your activity level before you were pregnant and progress your exercise slowly under the guidance of an Accredited Exercise Physiologists. Always listen to your body, as you know it best; being aware of any adverse symptoms including dizziness, bleeding or leaking of amniotic fluid, decreased foetal movement, headaches, unusual swelling, nausea or vomiting. Ensure to seek immediate medical attention if you do experience any of the above mentioned.

Expert Contributor: *Jadi Lacco, Accredited Exercise Physiologist*

Access the **Clinical Practice Guidelines for Pregnancy Care** here.

Access the **Sports Medicine Australia (SMA) Exercise in Pregnancy and the Postpartum Period Position Statement** here.

EXERCISING FOR GESTATIONAL DIABETES

As our lifestyles change and women have children at a later age, the prevalence of gestational diabetes has risen. Currently 68 Australian women are diagnosed every day.

There are many treatment options available including dietary changes implemented by an Accredited Dietitian and regular exercise prescribed by an Accredited Exercise Physiologist. Regular exercise can help manage blood sugar (known medically as 'blood glucose') levels, and improve the health and well-being of both mum and bubs.

Never fear, this exercise doesn't have to be hours in a gym, it can be as gentle as a daily walk!

WHAT IS GESTATIONAL DIABETES?

Gestational diabetes is typically tested for at 24 – 28 weeks gestation. For the test, the mother usually has blood samples taken before and after a sugary drink being consumed. Gestational diabetes is diagnosed when the mothers blood sugar levels are too high before the sugary drink is consumed (fasted blood sugar level >5.1mmol) or too high two hours after the drink has been consumed (blood sugar level >8.5mmol).

Try to imagine insulin is a key, floating through the blood stream, unlocking doors to allow blood sugar to enter the cells. During pregnancy, the placenta releases hormones which reduce the mother's sensitivity to insulin, so the key no longer goes in to the door as easily as it did before.

This means her pancreas must release more insulin to allow blood sugar to enter the cells around her body. Gestational diabetes occurs when the mother's pancreas is unable to release enough insulin (keys) to get all the blood sugar in to her cells (through the door), which increases the amount of blood sugar floating around. If not properly controlled, this additional blood sugar will instead go to baby resulting in a heavier birth weight and placing stress on the baby's developing pancreas.

HOW DOES EXERCISE HELP MANAGE GESTATIONAL DIABETES?

Exercise helps manage gestational diabetes by increasing the number of doors available for the insulin keys to fit in. This subsequently increases the amount of blood sugar which can be burned by cells.

Exercise also helps reduce blood sugar levels through the additional energy expended during the exercise and in the hours after exercise which further assists in reducing blood sugar levels.

WHAT IS THE BEST TYPE OF EXERCISE?

The ideal exercise program is something you can complete most days of the week. An Accredited Exercise Physiologist can create an individualised exercise program, including a mix of both aerobic exercise and strength training.

Options include walking, swimming, light weights training, body weight exercises, and Pilates. Daily pelvic floor strengthening exercises are also an important inclusion for all pregnant women.

For optimal results, you should aim to complete aerobic exercise for at least 30 minutes, 5 days per week, and 8 – 12 different strength exercises, 3 days per week. These strength exercises should target major muscles all over the body.

THINGS TO CONSIDER

- Always check with your obstetrician or midwife prior to beginning a new exercise program.
- Always seek guidance from an Accredited Exercise Physiologist for exercise prescription.
- Speak to your obstetrician, midwife or diabetes educator for guidance on exercise timing if you are taking insulin medications.

Expert Contributor: *Bryannah Downward, Accredited Exercise Physiologist*

EXERCISING SAFELY POSTPARTUM

What to do and when to start exercise following childbirth can be confusing for a new mum. However, it is an important topic to address as exercise postpartum can have a multitude of benefits for both physical and mental well-being including helping to prevent postnatal depression, relieve stress and increase energy.

Getting the right advice and following evidence based professional guidelines for postpartum exercise can help you to experience the multitude of benefits of exercise whilst staying safe. Your local Accredited Exercise Physiologist will be your best resource for guidance and expertise regarding safe exercise if you have recently given birth, whether it be a natural birth or caesarean delivery. Your Accredited Exercise Physiologist may ask for a clearance from your obstetrician or doctor before recommending exercise, depending on the type of delivery and if there were any complications.

WHEN IS IT SAFE TO START EXERCISING AGAIN?

This will be different for each new mum, dependent on the type of delivery she endured and any complications that may have arisen. For a healthy pregnancy followed by a normal vaginal delivery, The American Congress of Obstetricians and Gynecologists indicates that it is safe to commence gentle exercise (for example a slow short walk) 2-3 days after giving birth, if feeling up to it. For anyone with complications throughout the pregnancy or delivery, or if undergone a caesarean delivery, speak to your obstetrician or health professional and get the all clear first.

HOW MUCH EXERCISE SHOULD I BE AIMING FOR?

It is important to be patient when returning to exercise postpartum, as too much too soon can do more harm than good. Try not to overdo an exercise program in the early days and resist the temptation to jump straight back into a pre-pregnancy regime. The American Congress of Obstetricians and Gynecologists recommendation for postpartum exercise is to start with 20-30 minutes of gentle physical activity per day, remembering that this can be broken up into small 10 minute bouts.

WHAT TYPES OF EXERCISE ARE SAFE?

Shortly after a natural birth, your midwife may prescribe a small range of pelvic floor and gentle abdominal exercises to start to re-activate and strengthen the core. Again it is important to acknowledge that every delivery is different and to be guided by a health professional with regards to the type of exercises that are safe for you.

The safest type of aerobic exercise to start with is walking, which has the added bonus of being an outdoor activity for the often housebound new mum, as well as being an activity that can be done with baby. Start with slow, short and gentle walks which can be progressed by increasing speed, duration and adding small hills as you feel that you can. It is generally not recommended to introduce jogging until at least 12 weeks and, even at this stage, only after a clearance from a health professional. Introducing high impact activities (including jogging and aerobics) too early postpartum can overload already unstable joints and the pelvic floor, increasing the risk of sustaining an injury or a pelvic organ prolapse.

The new mum will often be subjected to a lot of incidental strengthening exercises in the early days postpartum including lifting, carrying and bouncing the baby, which is a safe and gentle re-introduction to strength based exercises. Following a caesarean delivery, this is the limit to strength based exercises for the first 6 weeks. You can generally start to slowly increase your strength regime if cleared by your obstetrician after 6 weeks.

IS THERE ANYTHING ELSE THAT I NEED TO CONSIDER BEFORE STARTING EXERCISE?

Yes – be prepared! Invest in a supportive bra; keep well hydrated (this is particularly important for the breastfeeding mum); and if breastfeeding, feed your baby or express prior to your exercise to avoid any discomfort in the breasts.

MOTIVATION

If you are struggling to find the drive and energy to get moving again, you are not alone. You could try joining a class, for example a mums and bubs Pilates or yoga; or rally other new mums to form a regular walking group. The social interaction, support and motivation that can come from group exercise can also be a great for your mental health.

TAKE HOME TIPS

- Always get a clearance from a health professional before recommencing exercise
- Start small and increase the exercise regime slowly. Be patient and mindful of what your body has endured and avoid being impatient to return to your pre-pregnancy regime too quickly
- Break your exercise into small bouts throughout the day
- Avoid high impact exercise for at least the first 12 weeks
- Listen to your body
- Join a class

And, most importantly, sleep when the baby sleeps!

Expert Contributor: *Jadi Lacco, Accredited Exercise Physiologist*

EXERCISE TO BATTLE POSTNATAL DEPRESSION

According to Perinatal Anxiety & Depression Australia (PANDA), postnatal depression is effecting more than 1 in 7 new mums each year in Australia, and it's important to understand the difference between 'feeling a bit down' and having a mental health condition.

Postnatal depression is different from the 'baby blues', which many women experience in the early days after giving birth associated with hormonal cascades. Some signs of PND are consistent low mood, anxiety, feelings of guilt, shame, worthlessness, or hopelessness. PND is depression occurring in the months following childbirth. The onset of PND tends to be gradual and may persist for many months and even years.

Some parents feel ashamed if they are not coping and so may try to hide their struggles. However, PND is a serious condition and if left untreated, it may develop into chronic depression or recur when another baby is born. For a better over look at postnatal depression and its symptoms and signs, please visit Beyond Blue.

If you are a new parent worried about your emotional and mental wellbeing it's important to seek support from a trusted health professional. Your GP should be able to help you understand what is happening and direct you to the best treatment options. These might include counselling, methods of self-care, medication or direction to appropriate information and resources.

It's also important for a GP to rule out any other physical conditions that we know can contribute to feelings of depression, anxiety, low energy or lack of motivation. If these are identified and treated the feelings that are worrying you may stop.

We know depression can impact on your ability to complete your everyday tasks and activities, let alone the additional demands of caring for a newborn. It can be hard to manage alone, so it's important to be aware of the signs of postnatal depression, and to seek help from family, friends and professionals.

Exercising before and during pregnancy is healthy for both you and baby, however evidence shows that continuing to exercise postpartum is a vital tool in enhancing mental and physical health and an effective treatment in reducing the symptoms and severity of postnatal depression.

Exercise is a form of medicine, and we know it can help improve your mood, as well as assist with your sleep quality and energy levels, as well as your physical recovery from pregnancy and delivery.

IMPORTANT THINGS TO NOTE:

- If you are concerned about postnatal depression seek advice from your GP as soon as you can.
- Make sure you get clearance from your doctor at a postpartum check-up prior to seeing an accredited exercise professional such as an Accredited Exercise Physiologist or Accredited Exercise Scientist.
- Not all exercises are suitable for postpartum women, so it's important to seek professional advice early to ensure you receive expert care from an exercise professional.
- Seek help from mental health charities like PANDA, Beyond Blue, or Lifeline. All of these organisations are well placed to help you with postnatal depression & perinatal mental health.

Expert Contributor: *Esme Soan, Accredited Exercise Physiologist*

Access the **Joint Position Statement with DAA, APS and ESSA on Addressing the Physical Health of People with Mental Illness** here.

EXERCISING WITH PROLAPSE

Many women may feel lost when it comes to moving well, or returning to exercise after diagnosis of Pelvic Organ Prolapse (POP), but there are many ways to help return to movement that you enjoy whilst protecting your pelvic floor.

Whether you are a candidate for surgery, or conservative management, exercise has an important role in strengthening your pelvic floor muscles and the musculature surrounding the pelvis.

WHAT IS PROLAPSE?

POP is the displacement of a pelvic organ (bladder, bowel or uterus) onto the vaginal wall. All of the pelvic organs are supported by a complex of muscles, ligaments, and fascia that attach to the bony anatomy of the pelvis. When these are weakened, those organs can descend.

Depending on which organs are involved, POP can be diagnosed as 'anterior wall' (involving the bladder), posterior wall (involving the bowel), uterine or vaginal vault.

Almost one in five Australian women will be affected by prolapse during their lifetime, and it is important to remember that prolapse is common and manageable.

WHAT CAN CAUSE POP?

- Vaginal delivery with interventions like forceps or vacuum, or a long second stage of labour (push phase)
- Being overweight
- Constipation
- Persistent heavy lifting with bad technique
- Excessive coughing – causing repetitive straining
- Changes in hormonal levels with menopause or surgery like hysterectomy

WHAT ARE POP SYMPTOMS?

Prolapse can have a variety of symptoms, including:

- Pressure, pain, or fullness in pelvis, or a visible lump around the pelvis
- Feeling a downward dragging or like a tampon falling out
- Urinary incontinence
- Difficulty going to the toilet
- Lower back, pelvic or abdominal pain
- Lack of sexual sensation or painful intercourse

Women can be hesitant to openly discuss these symptoms, but prolapse is very important to identify, and modifying exercises is necessary for exercise to be performed safely.

If you think you may have prolapse, first seek guidance from your GP or Women's Health Exercise Physiologist.

WHY IS EXERCISE IMPORTANT?

Exercise is important for your general health and fitness, and especially important for maintaining bone mineral density and mobility moving towards menopause.

Specific exercises for prolapse, including pelvic floor exercises, can help improve and manage prolapse symptoms and support your body, however certain exercises are contraindicated for prolapse – and can make things worse.

Therefore, it's important to seek help from a professional, such as an Accredited Exercise Physiologist, to ensure you are exercising safely.

PELVIC FLOOR EXERCISES:

- Improve bladder and bowel control
- Reduce the risk of prolapse
- Improve recovery from childbirth, gynaecological surgery and prolapse
- Increase sexual sensation and orgasmic potential increase social confidence and quality of life

Pelvic floor exercises have their place to help improve motor control, strength and endurance of your pelvic floor, however a program of these exercises alone is not enough!

EXERCISE CONSIDERATIONS:

- Lighten your weights or resistance so that you don't feel pressure down on your pelvic floor as you move.
- Avoid holding your breath by exhaling with effort.
- Maintain good posture.
- Avoid all abdominal exercises like sit ups and crunches – and instead chose abdominal exercises that resistance lateral and frontal flexion like side planks.
- Keep your legs closer together during exercise, no wide legged squats or squat jumps.
- Lift your pelvic floor before you move and relax afterwards. Notice how many reps that you can do before your pelvic floor muscles tire.
- You may need to add some rests, or reduce the number of reps that you do in a row, while your pelvic floor muscle fitness improves.

WANT TO LEARN MORE?

The Continence Foundation of Australia has developed a free, safe Pelvic Floor First exercise app to both help prevent incontinence and enable people experiencing problems to continue to exercise without further straining their pelvic floor. Further resources can be found here.

An Accredited Exercise Physiologist can help create an individualised exercise program for you that is pelvic floor safe and may help elevate your prolapse symptoms, allowing you to transition back to moving without fear, return to sport and support you to reach your personal fitness goals.

Expert Contributor: *Esme Soan, Accredited Exercise Physiologist*

EXERCISING FOR MENOPAUSE

As we progress through the lifespan, our body is challenged in different ways. Menopause is no different. With changing body composition, energy levels, hormone balance and more, it is a period of adjustment and refocusing on lifestyle choices and behaviour changes.

Menopause refers to the end of menstruation and is said to have occurred when a woman has not had a period for 12 months. Australian women typically experience menopause between ages 50-55 years, although this can occur in younger women secondary to surgery, chemotherapy or radiation.

A significant change that occurs in menopause is weight gain, especially around the waist, which is not only uncomfortable but also a significant risk factor for other health conditions. A woman's risk for numerous medical conditions, including breast cancer, type 2 diabetes, and heart disease, rises during and after menopause.

Being physically active and maintaining a healthy weight can help offset these risks.

EXERCISE BENEFITS WOMEN DURING MENOPAUSE IN SEVERAL WAYS INCLUDING:

- Improve sleep and reduction in disturbances experienced
- Improved mood
- Improved weight control
- Increased/maintained bone density and strength
- Reduced incidence of chronic disease (i.e. type 2 diabetes and heart disease)
- Improved quality of life
- Enhanced mental health
- Reduced stress
- Improved balance and falls prevention

WHAT TYPE OF EXERCISE IS IMPORTANT?

A variety of aerobic, strength, balance and flexibility exercises should be prescribed to build your exercise tolerance, improve muscle and bone strength and increase your stability.

Aerobic activity that makes use of your large muscle groups while keeping up your heart rate is recommended – walking, jogging, biking, and swimming all count.

Also consider the intensity of the exercise – it is different for everyone. Ideally a moderate intensity exercise program will provide you with the above mentioned benefits of regular physical activity.

During menopause, the hormonal changes (particularly oestrogen) means that the risk of developing osteoporosis, or brittle bones, is significantly greater. This is where strength-based training is particularly beneficial to continue to load your muscles, bones and joints in a safe way to build strength and prevent or slow the progression disease.

Also consider your preferences for exercise and your physical symptoms of this life stage. You might feel more comfortable exercising outside in the fresh air or with layers of clothing you can peel off as your body temperature increases (or the hot flush comes!).

If you are experiencing hot flushes, it is recommended to exercise in a relaxed environment that has a focus on deep relaxed breathing such as yoga, Tai chi or low impact classes that focus on slow controlled breathing with the movement.

Keep yourself hydrated by aiming for 30ml of water per kilogram of body weight each day. This might seem like a lot if you aren't used to drinking a lot of water, so build it up gradually.

SO, WHERE DO YOU START?

Talk to an exercise professional. An Accredited Exercise Physiologist will ensure the most suitable program to suit your needs and abilities. They will adopt a holistic approach to your health and well-being goals and work with you to track your progress and adjust your exercise regime to reflect your progress.

Ideally, aim for 30 minutes of activity 5 days per week. That is, a total of 150 minutes per week to meet the National Physical Activity Guidelines for Australian Adults. Start small and build up from there. Your body will thank you for it!

Expert Contributor: *Ismini Dandanis, Accredited Exercise Physiologist*

EXERCISING AFTER A HYSTERECTOMY

Unfortunately, many women are left in the dark about how to safely return to exercise after a hysterectomy.

There are some inappropriate abdominal exercises after hysterectomy that can increase the risk of injury to the pelvic floor (e.g. pelvic organ prolapse or hernia), but we know how important exercise is – both for physical and mental health!

There are some exercises however, that are better than others for recovering and returning to exercise after hysterectomy, and it is always best to seek the advice of an Accredited Exercise Physiologist to help rehabilitate and return to the activity you love to do – and protect your pelvic floor for the future.

WHAT IS A HYSTERECTOMY?

A hysterectomy is an operation to remove the uterus – and depending on the type of hysterectomy being performed, accompanying organs such as the fallopian tubes, ovaries and cervix are often removed at the same time.

Most hysterectomies are performed to treat conditions such as fibroids (growths that form inside the uterus), endometriosis, adenomyosis, pelvic organ prolapse and cancer.

Hysterectomy is one of the most common types of elective surgeries for Australian women, but although this surgery is common, it is important to remember that it is a major abdominal surgery that requires a period of rehabilitation afterwards!

BEST EXERCISES TO START WITH AFTER A HYSTERECTOMY:

First time back at the gym after surgery? Or looking to get started again at home?

The best exercise to start with is walking. Walking is fantastic functional exercise, and hill walking is a great way to challenge your cardiovascular fitness without risking injury to your pelvic floor.

It is also great to start to reconnect with your pelvic floor and core by performing some pelvic floor exercises (aka kegels) and core breathing. At times, these exercises can be difficult to do, but an Accredited Exercise Physiologist can help you!

PELVIC FLOOR ELEVATORS

- Start by lying on your back, with knees bent and feet flat. Take a gentle inhale breath for 3-4 seconds, breathing into your ribcage and tummy, and gently exhale through pursed lips for 5 seconds.
- Think of your pelvic floor like an elevator, with closing doors and a G floor, and 1st floor.
- Start your pelvic floor contraction by 'closing the elevator doors' (squeeze around anus and urethra like you are trying to stop the flow of urine)
- Then, feel a gentle lift of the pelvic floor elevator up to the 1st floor.

Always remember to relax your pelvic floor again, by letting it descend back to G floor, and allowing the doors to open. This should not be forceful – but just a relaxation.

Finally, some gentle stretches and mobility work will help get your body ready to move again. Some of our favourites are a seated glute stretch, seated hip flexor stretch and a wall side bend stretch.

SOME EXERCISES TO AVOID AFTER HYSTERECTOMY ARE:

- High impact exercises e.g. running/jumping/burpees
- Abdominal exercises e.g. sit ups/crunches/planks
- Heavily loaded resistance exercises e.g. anything that makes you hold your breath or grunt to lift

Immediately after surgery (within first 6 weeks post-surgery) you may be advised to avoid lifting anything heavier than 4kg, and avoid prolonged standing.

This is not to say you can never perform these types of exercises again, but that your body will require some recovery, rehabilitation and regain strength in your pelvic floor and core before you can return to this kind of high impact or heavy loaded work.

Finally, it is always best to start slowly when returning to the gym after major surgery, and if your exercise or activity goal is to return to high impact work like running or sport, seek the help of a professional like an Accredited Exercise Physiologist to help get you there safely and successfully!

Expert Contributor: *Esme Soan, Accredited Exercise Physiologist*

EXERCISING TO BUILD STRENGTH AND PREVENT FALLS

As women age, exercise may become daunting, especially post-joint replacement or after years of sedentary behaviour. Sometimes people may not know the safest way to start with a routine, they may be weary of their balance deteriorating, or they may be living with chronic pain.

Balance exercises are paramount for all individuals but become increasingly important to reduce the risk of falls in the elderly. Falls may include slips, trips and near misses. They can happen to anyone, but if falls do occur, injuries are more significant the older we get.

COMMON INJURIES INCLUDE:

- Hip and wrist fractures
- Hip and shoulder dislocations
- Head injuries and abrasions
- Bruising and sprains
- Fear of falling that can result in loss of confidence and restriction of activities

Remember: falls are preventable.

With all this in mind, surely each of us knows either a family member, neighbour or friend that may benefit from some balance and leg strengthening. Perhaps it's even yourself. Please spare some time in your busy lives to try and practice these exercises together.

HOME EXERCISES

Some simple exercises can be practiced at home to reduce the risk of falls. They can be practiced sporadically throughout the day and you can build up your capacity slowly.

Some pointers:

- Move slowly.
- Stop if you feel faint or experience sharp pains.
- Hold on to a strong support such as the kitchen table/sturdy chair against a wall.
- Stand tall and breathe deeply to improve your posture.

1. Heel to toe balance

As well as improving overall balance, this exercise will help you keep your balance if you should have to walk through a narrow space.

Level 1: Feet together

Level 2: Step forward

Level 3: Heel to toe standing

Choose a level appropriate for you.

HINT: You should feel a tiny bit wobbly, but not so wobbly you feel you will fall. By feeling wobbly you will help train leg strength and balance.

Practice: 4 x 10 seconds – alternating between left and right foot in front.

You may find that it is a lot easier to balance one leg than the other. This is okay, just persevere with both legs, so that you do not favour one side too heavily when walking and stepping.

Remember to hold on – this is not cheating! Maintain a tall stance and as you improve try to hold on with just fingertips held lightly on support.

2. Sideways walking

This exercise will help improve hip stability, and help you keep your balance if you need to take a sideways step to avoid oncoming traffic or in the instance of recovering from a bump from side on (relying on your new-found leg strength!).

Practice: 2 x 10 steps – either on the spot or up and back the length of the kitchen bench or wall.

Steps don't need to be excessively large, small is fine too.

Remember to hold on, maintain a tall stance and as you improve try to hold on with just fingertips.

3. Marching on the spot

This exercise will help with foot clearance over steps, help with getting in and out of a car or bus and help you feel stronger and less fatigued in climbing up the dreaded stairs.

Practice: 2 x 5-10 steps – alternate between lifting the left and right legs.

Feel free to hold on to two strong supports, one in each hand.

Stand tall. Keep the body straight (avoid leaning to one side).

Don't worry if the knee doesn't lift to knee height, lift as high as you feel comfortable with – it will improve over time!

Exercises to improve balance are best practiced **daily**. Try to complete the above exercises as often as possible for the best outcomes. Perhaps take 5 minutes to try after breakfast is cleared from the bench, see how you go.

Please see an exercise professional, such as an Accredited Exercise Physiologist, if you have any concerns before commencing a balance program or for further advice.

Expert Contributor: *Alex Hardy, Accredited Exercise Physiologist*

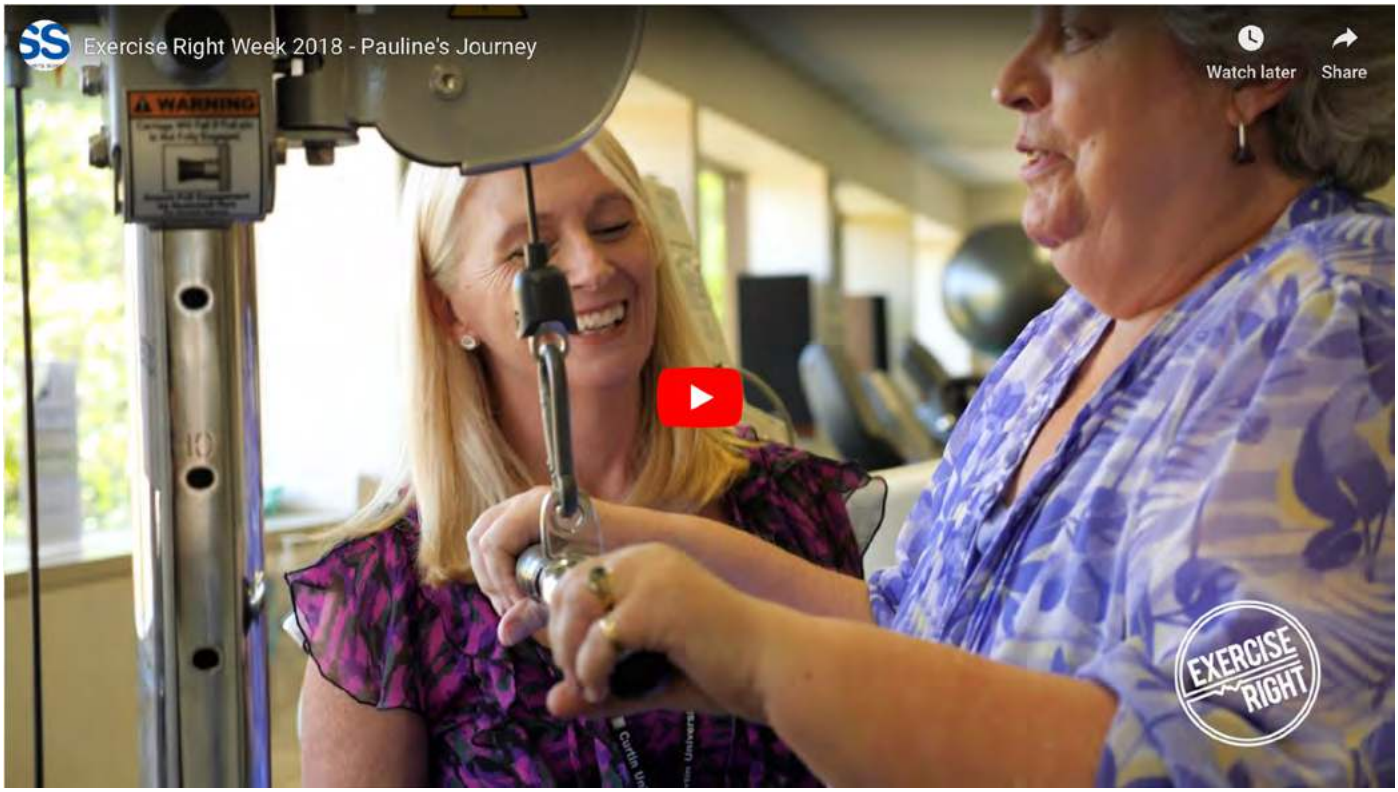
Access the **Exercise & Sports Science Australia (ESSA) Position Statement on Exercise Prescription for the Prevention and Management of Osteoporosis** here.

Access the **Exercise & Sports Science Australia (ESSA) Position Statement on Exercise and Falls Prevention in Older People** here.

PAULINE'S EXERCISE JOURNEY TO BUILD STRENGTH AND PREVENT FALLS

Pauline felt like she was losing her ability to enjoy life. Her general health and well-being was declining and she felt her quality of life was slipping away. Pauline relied on walking aids, struggled to walk more than very short distances, and was unable to walk up and down stairs.

Pauline proudly says that before she commenced her program with her Accredited Exercise Physiologist she was just 'surviving' – whereas now she is 'thriving' and is now able to fully participate in life.



THINGS TO REMEMBER

Aerobic activities and strength training are both important for women and their health.

Aerobic activity, aka any continuous exercise that makes your breathing increase, makes use of your large muscle groups while keeping up your heart rate. Walking, jogging, biking, and swimming all count and mixing your exercise up throughout the week will help to improve your motivation.

Strength training will help to build bone and muscle strength, burn body fat, and rev up your metabolism. There are many different ways we can perform strength exercise. For example, holding onto weights (e.g. dumbbells), pushing or pulling loads (e.g. resistance bands, machines) or exercises as simple as moving your own body weight (e.g. squats, lunges). New to strength training? Start off with light weights and try to increase the weights you're using over the following couple of weeks.

It's always recommended that you speak to and gain advice from an Accredited Exercise Physiologist before commencing any new exercise programs to ensure it is safe for you and your health.

TIPS FOR STAYING ON TRACK

Grab a friend – Exercising with your partner, friends or family increases the likelihood that you'll stick to your routine. Grab a buddy and get moving! Being held accountable for exercising with someone, and supporting each other's goals, is proven to increase the amount of exercise undertaken.

Making time – One of the most common reasons for not exercising is lack of time. Sure, you're busy, but it's all about planning and prioritising. Your health is what's most important. Even if it's a 10-20 minute walk in your lunch break each day – something is better than nothing.

Have fun – Exercise isn't supposed to be a chore. Hate running? Don't do it! Find something you enjoy and do that. Sometimes it can take time to find an exercise we enjoy, and that's okay. There's a variety of exercises available, and seeking advice from an Accredited Exercise Physiologist can help too.

Every bit counts – Don't forget to make the most of incidental exercise. Take the stairs. Park your car further away from work. Opt for standing instead of sitting. It all adds up and every little bit counts.

For more exercise recommendations and motivation, you can find further information on the Exercise Right website, an ESSA initiative providing the public with information on how to exercise right for your health: www.exerciseright.com.au

WHAT DO OUR PROFESSIONALS HAVE TO SAY?

THE EXPERTS OF THE WOMEN'S HEALTH SPECIAL INTEREST GROUP SHARE THEIR REASONS FOR EXERCISING

I partake in recreational Olympic weightlifting. It's one way to break the stigma of women and lifting weights, and it's also my 'me' time to block out work and life and 'play' for an hour.

Kitty Chao, AEP

I exercise because I know how good it is for my growing baby! As well as making me feel better too. It immediately reduces my overall fatigue, soreness and discomfort I am feeling as my body changes. Living in the NT there is no swimming as the water is full of crocs, so my go to exercise is using my exercise bike in front of the aircon and fan, and daily Pilates and an hour walk when it finally cools down!

Alexandra Bruggisser, AEP

I exercise to help manage fatigue and to give me energy. I'm now conscious of maintaining bone health in preparation for getting older, whilst also maintaining the strength, endurance and enthusiasm for combining the day-to-day running of my business with a balanced home life. In summer I love to swim – it's like meditation; my thinking time to be present with myself. The same with walking around the river. I am also working on strength at the gym and challenging myself to be stronger. I want to be a role model for my niece, my nephew, and hopefully one day, my own kids.

Rebecca Hallam, AEP

As the mum of a toddler, I have recently developed a strong passion for women's health, particularly in regards to supporting women to maintain or rebuild activity levels with children, and also to model an active and healthy life for our children. Our family enjoys 'adventures' together, including surfing and bushwalking, and my daughter and I do yoga together and lots of walks and time on the trampoline. I also try to do exercise with her while she is at the park (I climb the equipment and play as well). With limited exercise time it's all about having fun together. I rarely make time for my own 'workout' time in the way that I did pre-baby, although I imagine that will change as she gets older.

Sonja Tayler, AEP

I exercise to keep my mind clear and improve my sleep at night. I also exercise to relieve stress and have some focused 'me' time. I love that exercise makes me feel better about myself and gives a sense of accomplishment, in addition to helping maintain a healthy physique. Personally, I enjoy exercising with others and finding ways to exercise outdoors. I find exercising with friends also improves my motivation to exercise and stick to something. I love the beach so a run along the foreshore with a friend is always fun, as are outdoor Pilates and yoga sessions.

Bryannah Downward, AEP

I own a Pilates studio that is basically populated by women; teenagers, women in their 20s through to their 70s. Each group has their different goals and restrictions based on their age and special population, from pre- and postnatal, who experience everything from pelvic pain, to low back pain, to rectus diastasis. Pilates is hands down my go to exercise for all of the above populations.

Trissi Pearce, AEP

I am currently exercising to help manage joint issues that are common during pregnancy. If I don't keep up with it, pelvic pain increases and movements become more difficult. My go to exercise in final trimester is my exercise mat and resistance band in front of the TV when the kids are in bed.

Jessica Bricklebank, AEP

I try to move as much as possible with my kids in our daily lives to make it normal. They can join me in backyard strength circuits, we walk to school (rain or shine), and we spend as much time as possible in nature. When I can get away, I prefer kite surfing or hiking as these are good for my body, mind and soul. I find strength work very valuable at this stage of my life. I also love trying out new forms of exercise and am currently learning from some students of Ido Portal – very cool stuff, but very challenging for me!

Stacey Pine, AEP

I build exercise into my every day in some shape or form. I do it because it makes me feel great and I want to role model it for my daughter, plus I live in Brisbane where the climate is fantastic! I start every morning with a walk with my daughter outside, exploring our suburb, or by beautiful locations in our city. I swim, run, cycle, strength train and do yoga. We have a home gym where my 2-year-old watches (and copies) my strength sessions. I also always try to walk or cycle to things instead of going in the car if possible.

Meg Achilles, AEP

At 25 and a mum of a little 2-year-old boy, exercise is my 'me' time that allows me to have the energy to keep up with being a mum and running a business. My go to exercise is circuit or HIIT training, especially in group settings, as I love how it motivates me. I also ensure I'm keeping my pelvic floor muscles strong and train them daily for at least 5-10 minutews, as I struggled with urge/stress incontinence postpartum. I've also just taken up sprinting again with the hope of making a return to competition. Exercise is my medicine and without it I would be stressed out, lethargic and cranky.

Emma Cormack, AEP

FURTHER RESOURCES & SERVICES

AUSTRALIAN RESOURCES

Jean Hailes Foundation

Jean Hailes Foundation is a national not-for-profit organisation dedicated to improving the knowledge of women's health throughout the various stages of their lives, providing a trusted world-class health service for women. ESSA highly recommends utilising the Jean Hailes Foundation website as it offers a variety of factsheets, resources, health professional tools and more on all things women's health.

www.jeanhailes.org.au

Health Direct

The Australian online Health Direct provides easy-to-read information on a range of women's health conditions and experiences from cervical screening tests and domestic violence, to incontinence and ovarian cysts. The search function also assists to find a health service throughout Australia.

www.healthdirect.gov.au/womens-health

Multicultural Centre for Women's Health

Multicultural Centre for Women's Health is a community-based organisation led by and for women from migrant and refugee backgrounds to increase migrant women's opportunities for health and well-being through health education, research, advocacy and capacity building.

www.mcwh.com.au

INTERNATIONAL RESOURCES

World Health Organization

Their website hosts a range of general factsheets, technical information, statistics and more to provide further assistance.

https://www.who.int/topics/womens_health/en/

HealthyWomen

HealthyWomen is a leading independent, not-for-profit health information source for women. They provide objective, research-based health information reviewed by medical experts to ensure its accuracy.

www.healthywomen.org

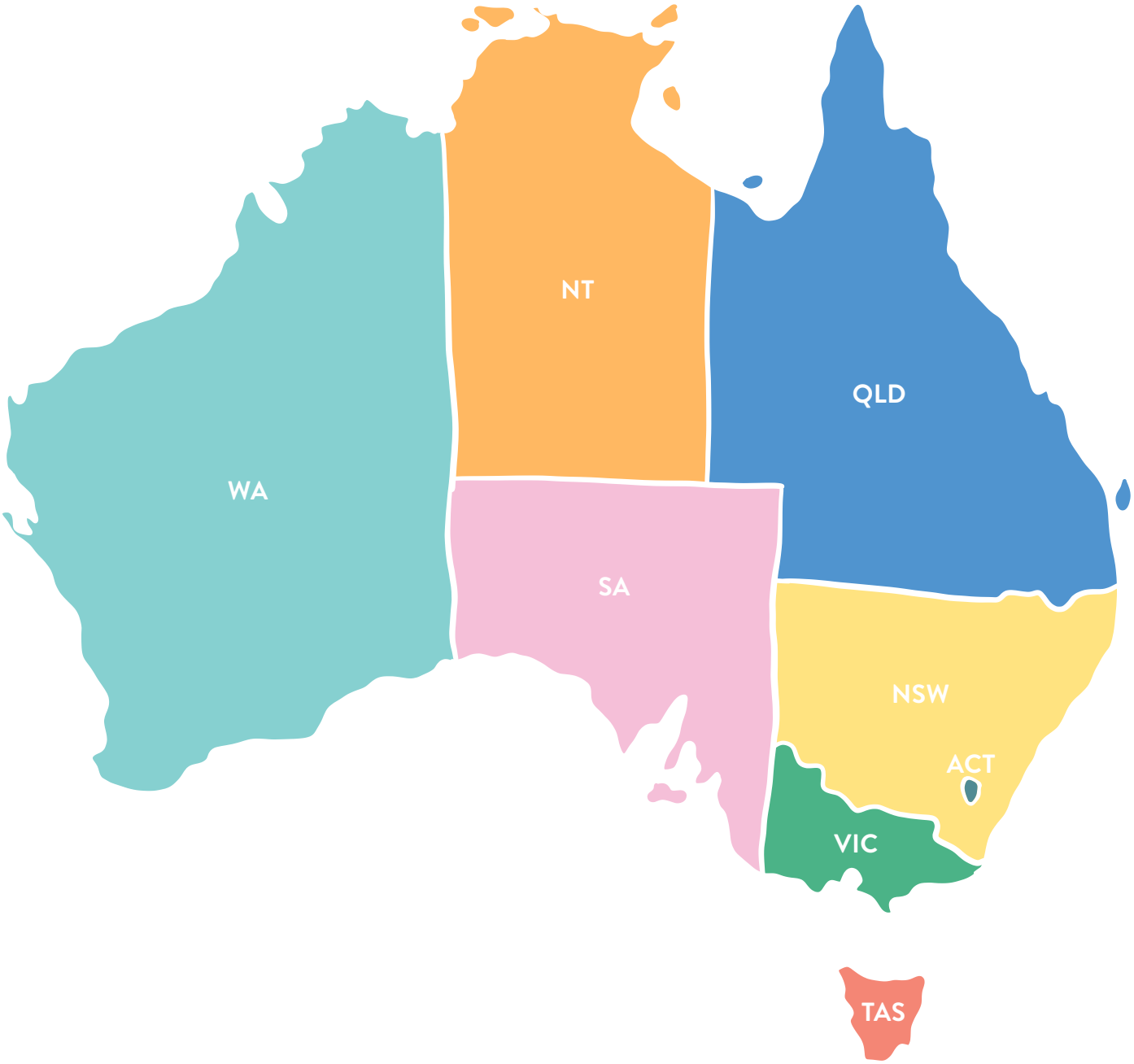
The Office on Women's Health

The Office on Women's Health was established in 1991 within the U.S. Department of Health and Human Services. The online website provides a wide range of factsheets and infographics on a variety of women's health topics.

www.womenshealth.gov/

STATE SERVICES

Click a state for further women's health-related information and resources in your region.

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