# A HEALTHY PACE Lifestyle Magazine > Issue 1

# Exercise for Optimum Health

### Type Diabetes Are YOU at risk?

Preventing Weight Gain

Back Pain And how to fix it!

Real Life Story Cancer and Exercise

HIIT The latest fad but is it right for you?



HEALTH



WELLBEING

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### Ryan Poole MD OF PACE

Welcome to the first edition of A Healthy PACE! Within these pages you can expect to be educated, inspired and sometimes amused – basically what happens when you work with one of our fantastic Exercise Physiologists!

Since 1998 PACE has been helping people make better choices toward creating a healthier lifestyle. Our team provide services through our private clinics, community groups, workplaces, schools or sporting clubs to name a few. We're here to help!

Accredited Exercise Physiologist (AEP) is a somewhat young profession - and we are regularly explaining what an Accredited EP actually does. You can find out a lot about AEP's at our associations webpage - essa.org.au. Accredited Exercise Physiologists (AEP's) hold a four-year university degree and are allied health professionals who specialise in the delivery of exercise for the prevention and management of chronic diseases and injuries. AEP's provide support for clients with conditions such as cardiovascular disease, diabetes, osteoporosis, mental health problems, cancer, arthritis, pulmonary disease and more.

A lot of people who come through our doors simply want to maintain a healthy lifestyle – and we love their preventative approach! On the other hand an AEP can help you with the following:

- Persistent pain
- Diabetes management & prevention
- Cardiac rehabilitation
- Weight loss / management and waist girth reduction
- Body composition changes (increased muscle, decreased fat)
- Osteoporosis
- Falls prevention / balance
- Arthritis
- COPD
- Injury rehabilitation
- Improve posture and spinal health
- Improve recovery following cancer treatment
- Pre-habilitation before surgery (knee and hip replacements)
- Plus many other health related goals!

To sum it all up AEP's are allied health professionals, providing exercise and lifestyle therapies for the prevention and management of chronic disease, injury and disability. We're here to help!

Due to the health benefits obtained from AEP services most private health funds now offer rebates for EP. Alongside Medicare, WorkSafe, Department of Veterans Affairs and TAC – Exercise Physiology services are more available to more people than ever before. And don't forget you can also attend without a referral and join in one of our very affordable group exercise options!

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

Yours in Health

Ryan Poole



Here we briefly discuss what is a very common presentation amongst those who present to our clinics with non-specific low back pain.

## Janda's Lower Crossed Syndrome

The crossed pattern of muscular integration is relevant across all joints in the body. When muscles become tight their opposing group generally becomes weak or inhibited. The classic example is the psoas muscle group (hip flexors) developing tightness and the gluteals (buttocks) becoming weak or inhibited.

This presentation also leads to weakness in the deep abdominal muscles and a corresponding tightness through the lower back muscles.

### What can I do about it?

The best thing you can do is visit one of our clinics to get an accurate evaluation of your posture and muscular system. If you can't make it in then these two basic exercises may be helpful for you. Remember to avoid any pain when doing exercise!

# EXERCISE

CHuman Kinetics 2010 Fig 1

**PSOAS STRETCH:** 1. Kneel with a tall posture like in the picture.

2. Square the hips to the front, and

tuck the tail bone under.

- 3. Stay tall and keep the pelvis square and tucked.
- 4. Feel stretch at top of kneeling thigh.
- 5. Hold for 30 secs repeat twice.





#### **GLUTE BRIDGE:**

1. Lie on the floor with knees bent and feet hip width apart.

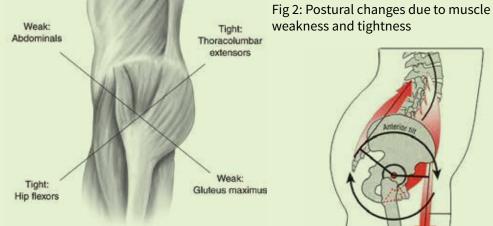
2. Activate your deep abdominals and

squeeze your buttocks.

- 3. Use buttocks to lift hips off the floor - hold for 3 secs.
- 4. Keeping abdominals and buttocks on, slowly lower your self to the floor.
- 5. Relax and repeat.
- 6. Aim for 2-3 sets of 12-20 repetitions.

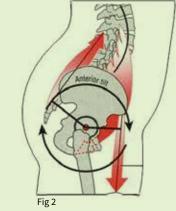


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weakness and tightness

Fig 1: Lower Crossed Syndrome





#### Vitamin C-rich Ratatouille

#### Ingredients:

1kg tomatoes seeded and diced (fresh are preferred as tinned are lower in vitamin C)

- 1 tb tomato paste
- 1 cup tomato puree
- 2 tb white vinegar
- 3 tb Olive Oil
- 2 fresh garlic cloves, crushed
- 1 onion
- 1 red capsicum
- 1 yellow capsicum
- 1 eggplant
- 1 zucchini
- 2 tb fresh thyme
- 10 x fresh basil leaves
- Black pepper

#### ---

#### Method:

 Heat 1 tb oil in pan and cook onion and garlic for 3 minutes and then add capsicum and cook for another 5 minutes.
 Remove from pan and set aside.

2. Heat remaining 2 tb oil and cook chopped eggplant for 3 minutes over medium heat, then add chopped zucchini and cook for an additional 3 minutes.

**3.** Add onion, garlic and capsicum mixture, followed by tomato paste and tomato puree and stir for 2 minutes.

**4.** Add fresh tomatoes, thyme, pepper, vinegar and reduce heat to low, then cover and simmer for 30 minutes, stirring occasionally.

**5.** Stir in fresh basil before serving with a lean source of protein such as steamed fish or poached chicken.

#### Low Fat, High Fibre, Cheesy Cauliflower and White Bean Soup

#### Ingredients:

1kg cauliflower (1 large head) 2 cloves garlic ½ onion 1 piece ginger (2cm x 2cm) ½ bunch celery (remove leaves) 1/2 litre chicken stock 1 x 425g tin cannellini beans 1 tb olive oil 100g low fat ricotta cheese Pepper to taste

#### Method:

1. Heat olive oil in a saucepan and cook garlic, onion and ginger. Add chopped cauliflower and celery and stir for 2 minutes, then add beans and stir for additional 2 minutes.

2. Increase heat to high and add stock and pepper to taste. Cover and bring to the boil. Boil for 8-10 minutes until all ingredients are soft.

3. Remove from heat, stand for 10 minutes and puree in batches. Lastly, return back to saucepan and stir in ricotta cheese until well blended, then serve immediately.



PPN Dietitian Services are available from Mornington, Rosebud, Sorrento, Frankston, Somerville and Malvern. Please see our website for a full list of locations.

PPN Diabetes Education services are only available at our main office located at:

15 Railway Grove Mornington

Phone: **03 59 741 011** Email: info@healthandnutrition.com.au Website:

healthandnutrition.com.au



# Who are PPN?

Peninsula Physical Health and Nutrition

At Peninsula Physical Health and Nutrition, our motto is "To Believe is to Succeed". We provide professional Dietitian and Diabetes Education services. Our nationally Accredited Practicing Dietitians (APD's) and Credentialed Diabetes Educators (CDE's) are highly experienced and will ensure to keep you motivated whilst providing individualized guidance and support as they lead you on the correct path to achieving your ultimate health and wellness goals. PPN Dietitians specialize in a variety of health conditions including Obesity and Weight reduction, Disordered Eating, Nutrition for Bariatric Surgery, Reducing Cholesterol and Blood Pressure, improving Cardiovascular, Renal and Pulmonary dietary management as well as Food Intolerances, Coeliac Disease and Irritable/Inflammatory Bowel conditions. We also specialize in Diabetes Management and diets for both Type 1 and Type 2 Diabetes. At PPN we understand that not everybody has the same health and fitness inspirations, therefore our dietary approach is individualized for all clients to ensure they can achieve their personal goals, no matter how big or small these might be.

"

### To Believe is to Succeed

PPN Dietitians and Diabetes Educators accept EPC (Enhanced Primary Care Plans) from Medicare plus are registered with Various Private Health Insurance companies for rebates on 'Extras' services where the patient is eligible. We are also registered for DVA (Department of Veterans Affairs), TAC and Workcover/safe referrals. Home visits may be arranged under special circumstances.

#### **REAL STORIES**

# "I know I need to keep moving forward"



#### Kerry, 50 Pace Mornington

Kerry is a 50 year old mother of 3 boys (plus one stepson!) who works as a teacher/assistant principle at a Melbourne Primary School. Early last year Kerry was completing a teaching exchange for 12 months in Vancouver, Canada when she was unexpectedly diagnosed

with right sided breast cancer. Images confirmed a lump located on her right breast and cancer also prevalent in 17/18 lymph nodes under her right arm.

Upon diagnosis Kerry flew back home to Melbourne and consulted local doctors and surgeons who recommended surgery (lumpectomy and axillary clearance) along with 6 months of chemotherapy treatment and 6 weeks radiotherapy. Throughout this treatment plan Kerry reported that she experienced extreme fatigue, loss of muscle mass and tone, loss of weight and appetite as well as an inability to work for 13 months.

In November 2013, Kerry decided that something needed to be done in order to get back her cardiovascular fitness and strength she had lost after 6 months of chemotherapy. She subsequently booked in an initial consultation at PACE Health Management in Mornington with Exercise Physiologist Ben Southam. Kerry says that she had heard about the PACE

'Living after Cancer' program through family and friends and booked in her initial appointment after completing her rehabilitation with the breast care nurses.

When asked how she found her first session at Pace Kerry says "Great. Slow! I was pretty weak and tired easily from my treatment. I had just started radiation and the burns were just beginning on my chest. I felt proactive and in control for the first time in a while". After her



first session Kerry

felt "tired but not too much. I left with exercises to do at home – each designed to be completed when having good or bad days. Ben drew awesome pictures!"

"My overall goal was to get back to doing what I loved, running" so both Kerry and her Exercise Physiologist set out an appropriate action plan to enable Kerry to reach this goal. "I see Ben once a week (since November). Each week I tell him how I feel and he either pushes me hard or eases off if I'm tired. There is always an emphasis on pacing! I was obviously keen to start running so he built that into my program too. I would leave with a set of exercises to do every 2nd day. Eventually I did buddy sessions with are the best – it's more fun to train with someone else!". When reflecting on the progress she has made through the Living after Cancer program Kerry states that she feels "sooooo much stronger and fitter. I can feel and see the improvement in my body. I have had the occasional setback, but I would still try and complete something on those days, it makes me feel in control of my health, instead of relying on doctors alone. Furthermore my energy levels have improved too."

Kerry's biggest achievement since commencing the program has been reaching her initial goal of getting back to running. Nowadays Kerry is able to run up to 6km saying that "it's slow progress but it's happening!". A huge day for Kerry was running in the Mothers day classic (4km) with her sons around the Botanical Gardens in the city "Ben has encouraged me to have goals, like fun runs, to work towards."

When asked what advice Kerry would give to others in a similar situation she has some very simple suggestions. "Keep moving, even if you don't feel like it. Do whatever you are able to do. It gives you a level of fitness to build upon when you feel better. Get support from PACE and the program will be tailored to your needs and will keep challenging you to the next level."

Kerry's Exercise Physiologist spoke glowingly of Kerry's dedication. "Right from the beginning Kerry approached each and every session with dedication, motivation and a continual search for improvement. We have had days where Kerry has

> sprung into the clinic, and days where she has really struggled, though Kerry's mental application has never wavered. It is for this reason that she has been able to achieve such outstanding results. Witnessing people achieve what Kerry has been able to do, given the challenges she has faced, reminds me of why I love doing what I do."

It has now been 17 months since Kerry was first diagnosed with breast cancer. She is back working 3 days a week and has recently moved into the city. Although she admits that it can be hard to continue with a regular exercise program, Kerry knows that "I need to keep moving forward".



# CANCER RESEARCH – WHAT WE NOW KNOW!

#### **PREVENTION OR IMPROVEMENT**

- ▲ Muscle mass, strength, power
- ▲ Cardiorespiratory fitness
- ▲ Physical function
- Physical activity levels
- ▲ Range of motion
- ▲ Immune function
- Chemotherapy completion rates
- ▲ Body image, self esteem, mood

Table 1. Summary of potential benefits of exercise during and/ or following cancer treatment.



Regular exercise after cancer diagnosis will increase cancer survival rates by 50-60%, with the strongest effect seen for prostate, colorectal and breast cancers. [1] Cancer represents a major public health concern in Australia. Causes of cancer are multifactorial with lack of physical activity being considered one of the known risk factors, particularly for breast and colon cancers. Participating in exercise has also been associated with benefits during and following treatment for cancer, including improvements in psychosocial and physical outcomes, as well as better compliance with treatment regimens, reduced impact of disease symptoms and treatment related side effects, and survival benefits for particular cancers.

#### REDUCTIONS

- Number of symptoms and side effects reported (nausea, fatigue, pain)
- Intensity of symptoms reported
- Duration of hospitalization
- Psychological and emotional stress
- Depression and anxiety

Historically, clinicians have advised cancer patients to avoid activity; however, emerging research has challenged this recommendation. Whilst it is now clear that exercise plays a vital role in cancer prevention there is also a growing body of evidence that exercise may decrease certain malignancies and extend survival for others.

Exercise is particularly important for preventing and managing other chronic diseases such as type 2 diabetes, stroke and cardiovascular disease. These conditions are increasingly recognized as side effects of cancer therapy, as is depression. Studies into men with prostate cancer found increased rates of depression, loss of muscle and bone mass, increased body fat, largely caused by reduced physical activity, poor nutrition and depression post treatment. Irrefutable evidence from large prospective studies shows that regular exercise after cancer diagnosis will increase cancer survival rates by 50-60%, with the strongest effect seen for prostate, colorectal and breast cancers.

The general exercise prescription for people undertaking or having completed cancer treatment is of low to moderate intensity, regular frequency (3-5 times/week) for at least 20 minutes per session, involving aerobic, resistance or mixed exercise types.

Lymphoedema requires specific mention as this side effect is experienced by approximately 30% of breast cancer patients and is the most feared in the treatment. Many guidelines to physical activity recommend avoidance of the treated side of the body which can create confusion amongst patients towards the safety of regular exercise. Several studies have shown that regular aerobic and resistance exercise is both safe and beneficial. That is, exercise does not cause or worsen lymphedema, and some evidence suggests exercise may play a role in its prevention through treatment.

Exercise Physiologists can influence public health through the prescription of exercise for the prevention of cancer, supporting the medical management of cancer, as well as optimizing recovery following cancer diagnosis. There are well-defined physical and psychological problems associated with cancer and its treatment that respond well to appropriate exercise. Therefore, exercise prescription should be seen as vital adjuvant therapy aimed at maintaining or improving structure and function, alleviating symptoms, and assisting recovery of survivors or slowing decline of palliative patients. The goal of exercise prescription should always be to enhance the quality of life of the patient.

#### PACE Living with Cancer Program (LWCP)

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

CALL CLOSEST CLINIC TODAY FOR MORE INFORMATION ON THE LWCP OR TO BOOK A PRESENTATION.



Over the next 3 years it is expected that 1.2 million Victorians will be diagnosed with type 2 diabetes, a condition that currently affects 1 in 4 Australian adults (diagnosed or at high risk). These numbers represent 275 Australians' being diagnosed with type 2 diabetes every day, making diabetes our fastest growing chronic disease.

Being diagnosed with type 2 diabetes increases your risk of having a heart attack or stroke 2-4 fold. It also increases the risk of kidney disease, blindness and nerve damage. If diabetes if managed well and blood glucose levels remain in a controlled range then we significantly decrease the risk of the above. This is the goal of managing diabetes with medication, nutrition and exercise.

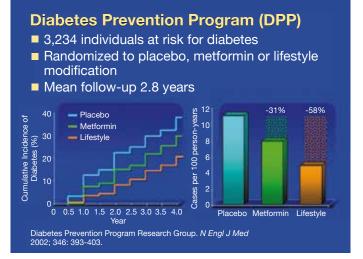
Type 2 diabetes is a condition affecting the body's ability to uptake glucose from the blood stream into the cells due to poor insulin sensitivity at the cellular level. This insulin resistance is multi-factorial, although the strongest risk factors for diabetes are documented as;

- · Physical inactivity (lack of movement)
- Increased waist girth (greater than 94cm men, 80cm women)
- Obesity
- High blood pressure
- Family history of diabetes
- Heart disease / stroke
- Poor nutritional habits
- Age
- Past findings of high blood glucose levels in blood tests (including pregnancy)

#### So is type 2 diabetes preventable?

The short answer is yes! As mentioned above there are many things that increase our risk of developing diabetes, with the main issue being insulin resistance at a cellular level. To prevent/delay the onset of, or better manage blood glucose levels if already diagnosed, there are a few simple things that we can incorporate into our daily life to improve our body's sensitivity to insulin, and therefore our ability to uptake blood glucose into the cell (muscle, liver, brain, etc).

Believe it or not, the most effective thing you can do to prevent diabetes is physical movement. In 2002 a Finnish research study looked at how effectively diabetes can be prevented. With 3 groups of people at high risk they compared no action vs. medication vs. lifestyle change. The medication group showed a 31% risk reduction compared to no action, the big winner though was the lifestyle group, which reduced the onset of diabetes by 58%! That is to say they prevented almost twice as many people being diagnosed with diabetes by prescribing physical activity instead of medication.



Think of movement as an opportunity, not an inconvenience

### So how much exercise is enough?

The current guidelines for diabetes prevention/management are centered around completing both aerobic exercise and resistance training as listed below.

Most people enjoy walking as regular exercise, however few Australian adults engage in regular resistance training. The

downside of not completing regular exercise for our muscles is that we rapidly lose muscle mass as we age (up to 1kg a year), which is why we see a sharp increase in diabetes prevalence in people over the age of 50.



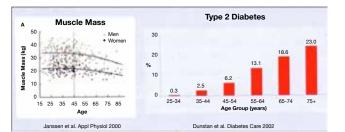
If you can complete the guidelines to the right, you reduce your risk of chronic disease by 50%. Keeping in mind that the cardiovascular exercise can be broken up into 10 minute bouts through out the day, and still show benefits to heart health, blood pressure, cholesterol levels, insulin sensitivity (and therefore blood glucose levels), mood, reduction of pain levels in arthritis and chronic pain plus many more.

Our greatest improvements in insulin sensitivity and improved ability to manage blood glucose levels comes from completing a combination of

both aerobic and resistance based exercises. Improvements in insulin sensitivity following exercise can last for 24-72 hours,

Rest no more than two consecutive days without physical activity depending on the duration and intensity of the exercise. For this reason, it is important to not rest for longer than 2 days, that is, to complete exercise on a little and often basis.

If you are worried you may be at risk of type 2 diabetes, please complete the risk test, and contact us for more information on how to prevent type 2 diabetes.



## What type is best?

#### **CARDIOVASCULAR EXERCISE (PLANNED EXERCISE)**

#### **Moderate Intensity**

80 minutes

At least 5 days per week

Intensity: Able to talk but not

Rating of Perceived Exertion: '13' Somewhat Hard

Weight loss – need to do at least 60 min a day

#### **Vigorous Intensity**

If able, perform vigorous intensity exercise for greater health benefits

30 minutes

4 days per week

Intensity: "huff and puff"- difficult to talk

Rating of Perceived Exertion: '15-19' Very Hard to Very Very Hard

#### STRENGTH TRAINING (PLANNED EXERCISE)

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8-10 major muscle groups

2-3 sets, 8-12 repetitions

2-3 days per week

Work to muscle fatigue

### Are YOU at Risk?

You could be closer to developing type 2 diabetes, cardiovascualr disease or stroke than you think...



#### If you have/or have had;

- > Family history of diabetes, cardiovascular disease, or stroke
- Waist circumference greater than 80cm in women and 94cm in men
- > Gestational diabetes mellitus
- > High cholesterol levels, blood pressure, or blood sugars
- > Chronic kidney disease

Then you could be at an increased risk of developing type 2 diabetes, cardiovascular disease, or stroke.

Check your risk assessment. If you score above 12 call us on 9770 6770 to see if you are eligible for our next course.

### PACE Exercise Physiology is offering:

### 5 FREE PREVENTION SESSIONS

with expert exercise physiologists and dietitians for the prevention of type 2 diabetes, cardiovascular disease and stroke.

Limited spaces available.

Book now before the program fills up!

www.pacehm.com.au PH: 9770 6770 The Australian Type 2 Diabetes Risk Assessment Tool (AUSDRISK)

#### 1. Your age group

Under 35 years	0 points
35 – 44 years	2 points
45 – 54 years	4 points
55 – 64 years	6 points
65 years or over	8 points

#### 2. Your gender

Female	0 points
Male	3 points

#### 3. Your ethnicity/country of birth:

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

	No Yes		0 points 2 points
3b.	Where were you born? Australia		0 points
	Asia (including the Indian sub-continent), Middle East, North Africa, Southern Europe		2 points
	Other		0 points
4.	Have either of your parents, or any of or sisters been diagnosed with diabet (type 1 or type 2)?		brothers
	No Yes		0 points 3 points
5.	Have you ever been found to have hig (sugar) (for example, in a health exam during an illness, during pregnancy)?		
	No Yes		0 points 6 points
6.	Are you currently taking medication for blood pressure?	or higl	٦
	No Yes		0 points 2 points

7. Do you currently smoke cigarettes or any other tobacco products on a daily basis?
 No
 O points

Yes

	2 points

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

8. How often do you eat vegetables or fruit?

Every day	0 points
Not every day	1 point

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

Yes	0 points
Νο	2 points

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

#### Waist measurement (cm)

For those of Asian or Aboriginal or Torres Strait Islander descent:			
Men Less than 90 cm	Women Less than 80 cm		0 points
90 – 100 cm More than 100 cm	80 – 90 cm More than 90 cm		4 points 7 points
For all others:			
Men	Women		
Less than 102 cm	Less than 88 cm		0 points
102 – 110 cm	88 – 100 cm		4 points
More than 110 cm	More than 100 cm		7 points

#### Add up your points

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

□ 5 or less: Low risk

Approximately one person in every 100 will develop diabetes.

6-11: Intermediate risk

For scores of 6-8, approximately one person in every 50 will develop diabetes. For scores of 9-11, approximately one person in every 30 will develop diabetes.

□ 12 or more: High risk

For scores of 12-15, approximately one person in every 14 will develop diabetes. For scores of 16-19, approximately one person in every 7 will develop diabetes. For scores of 20 and above, approximately one person in every 3 will develop diabetes.

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

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

## Preventing Weight Gain

By Kate Save

Does winter get you down and encourage you to eat comfort foods as well as wear big baggy clothes to hide in? Well its time you learnt how to avoid gaining the winter coat by selecting less calorie-dense winter foods and ensuring you are burning those extra calories off.

Did you realize that to gain 6kg over winter you would only need to consume an extra 250 calories per day - that's the calorie difference between one serve of lasagna for dinner compared to a minestrone soup?

So how can you avoid this...

Start to be aware of your winter food choices and ensure to choose the lower-calorie options at main meals more regularly and only snack on fruit, diet yoghurt, healthy homemade soups and air-popped corn.

Finally, be active everyday and if you are going to have a bucket of hot chips, or a meat pie, ensure to compensate with exercise and burn it off!

#### A SIMPLE WAY HOW TO LEARN TO MAKE LOWER **CALORIE CHOICES**

High Calorie Winter Option	Lower Calorie Winter Alternative
Bucket Hot Chips (369 calories)	2x Steamed Dim Sims (190 calories)
Hot Chocolate Takeaway	Jarrah Instant Chocolatte
Full-cream milk (247 calories)	(49 calories)
2 x Slices Aussie Pizza (322	Subway Roast Chicken Salad
calories)	Box (126 calories)
Noodle-Box Laksa Soup (1127	La Zuppa Pumpkin Soup
calories)	(130 calories)
Take-away Lasagna (427	Chunky Minestrone Soup
calories)	(168 calories)
Meat Pie (401 calories)	2 x Chicken Rice Paper Rolls (220 calories)
Quiche – Vegetarian (452	Vegetable Burger (159
calories)	calories)
1/2 serve of Thai Beef Curry and Rice (652 calories)	Thai Beef Salad (260 calories)
Nachoes (1210 calories)	½ jar Chunky Salsa and 15 x Sakatas (165 calories)

Use the WHAT IT TAKES TO BURN IT OFF theory of compensation and learn what it takes to burn it off;

Exercise (60 min duration)	<b>Calories Burnt</b>
Walking (6km/hr)	302 calories
Jogging (10km/hr)	739 calories
Swimming (general)	403 calories
Golf carrying clubs	370 calories
Gardening	302 calories
House cleaning general	235 calories
Tennis	470 calories
Basketball	538 calories
Bicycling (25km/hr)	672 calories

### Why Women Have MORE Weight Issues than Men By Kate Save

Have you ever wondered why a lot of men seem to be able to eat anything they want and they don't gain weight but if you even look at those foods you gain weight? Well, unfortunately God did not create us all equal here.

#### Physiological reasons for increased weight gain in women compared to men include:

- + Women's metabolism is about 15% slower than men's metabolism
- + Women have approximately 40-50% less upper body muscle mass than men which means they burn less calories
- + Women's bodies are better at lipogenesis (fat creation and storage) and men's bodies are better at lipolysis (fat breakdown)
- + Women must carry a minimum of 13% body fat for essential functioning and reproduction whereas men only need a minimum of 3% body fat although (note that 20-25% body fat in women and 10-15% in men is recommended for health)
- + Women's heart and lung capacities 1/3 smaller than men's meaning that when doing exercise, men will find it easier with increased oxygen levels and circulation

#### Some other psycho-social reasons include:

- Females are more likely to eat for emotional reasons than men due to hormonal influences
- + Females have more food temptations than men as they are more likely to be surrounded by food due to their familial responsibilities for food purchasing and preparation
- + Females are less likely to work in laborious positions in the work-force than men and therefore burn less calories in everyday life

#### So what can we do about this extra body fat then?

The first change you should make is to become physically active either by doing more incidental activity or more exercise. Did you know that following a high intensity exercise bout, the rate of metabolism is elevated for up to 38 hours after you finish? This effect is called 'EPOC -Excess Post-Exercise Oxygen Consumption', also known as the 'afterburn'. With regular aerobic exercise, this postexercise energy expenditure will positively contribute to weight loss goals.

Last but not least, you must change your diet to assist with increasing metabolism. One of the most important things you can do for this is to eat regularly. Dieting and skipping meals, especially breakfast, tells your body it's in a famine.

#### Skipping meals results in a metabolic disaster which unfolds like this;

- + Your hunger cells then turn on and your satiety (fullness) cells off.
- + So if you are overweight, even though you have plenty of fat stores, the brain behaves like you were starving.
- + A consequence of this is the loss of conscious signals that tell you when you are full and when you are hungry.
- + A common sign of this is that most overweight people don't feel hungry when they get up in the morning resulting in skipping breakfast.
- + The brain interprets this as more starvation signals and further shuts down the metabolism.
- + The number one risk factor for obesity is skipping breakfast.

If you want help changing your diet contact us at PPN to get your metabolism working for you!

### How does Exercise assist with Osteoarthritis?

The main goal of exercise therapy for people with osteoarthritis (OA) is reduction of pain, improvement in overall physical function and to enable optimal participation in all activities of daily living. Research has shown that exercise therapy can improve the physiological impairments associated with OA such as muscle strength, joint range of movement, proprioception, balance, falls risk, weight management and cardiovascular fitness. There are many different exercise modalities that can help reduce OA symptoms, these are outlined below:

#### **Resistance based**

**training** – It is suggested that an individualised strengthening program should be the cornerstone of OA management. Research has shown that by strengthening the important muscles around an osteoarthritic joint will reduce the amount of load travelling through an osteoarthritic joint. The effect of this is pain reduction, improvement in physical function and muscular strength.

#### **Cardiovascular exercise** – By completing regular

cardiovascular exercise, benefits include; weight management, improved respiratory function, improved blood circulation and joint range of motion. With regards to OA sufferers, these benefits will assist with pain levels, reducing joint tenderness and improving functional status. High impact activities such as running should be avoided.

#### Hydrotherapy - Water

buoyancy helps to minimise the load on the joint and hence can assist with reducing pain when completing exercise. However relative research suggests small to moderate effects on improvement of function and states that hydrotherapy should be used as a starting point before progressing to more land-based exercises. Patients who are overweight or experience high levels of pain are recommended to complete hydrotherapy.

**Flexibility** – A structured stretching program has shown improvements in joint range of movements and activities of daily living.

It is important for individuals suffering from osteoarthritis to actively seek advice on what type of exercise therapy will help manage their presenting symptoms best. Each exercise program should be tailored by a suitable health professional and needs to be individualised and patient centered in order to bring about optimal outcomes. Factors such as age, mobility, co-morbidities, preference and disease progression need to be considered when prescribing an exercise program.

### FAST FACTS >

You body become 10-15% less energy efficient with poor posture

Exercise therapy for 8 weeks improves cardiovascular fitness in OA sufferers by 13.1%



### High Intensity Interval Training (HIIT) is the latest fitness trend, but is it right for you?

HIIT involves alternating periods of high intensity exercise with periods of rest designed to get your heart rate racing and muscles fatiguing. One of the great things about this type of training is its flexibility; you can apply the principles to any type of exercise. Whether you prefer running, cycling, swimming, jumping, weight training, rowing, whatever your exercise of choice is you can manipulate it to fit the principles of HIIT.

HIIT started as a time efficient means of exercising to fit the busy schedule of the everyday person and is now one of the most popular methods of exercise. Why? It has been shown to elicit similar results to exercise bouts that are twice the duration making it the perfect solution for that age-old dilemma 'I can't find the time for exercise'.

Another great benefit of HIIT is that it raises our metabolism (how much energy the body is using) both during and after the session. Studies have shown metabolism remains elevated above normal resting levels for up to 24 hours after the exercise has been completed meaning we are burning more calories than we otherwise would be. This is a great asset for anyone looking to lose weight as it starts to shift the calorie deficit in our favour!

However, HIIT isn't for everybody....

High intensity exercise places an extreme amount of stress on the body; it is only suitable for those individuals who already have a moderate level of conditioning or fitness. We suggest training with a qualified professional to get a safe level of conditioning and ensuring you have clearance from a medical practitioner before attempting any type of high intensity training. For those just starting on their new journey towards a healthier life it's important to enlist some help along the way, someone who can point you in the right direction and even guide you step by step.

### ARE **YOU** READY FOR SUMMER?

By Ryan Poole

Summer is just around the corner – here we have a great full body circuit routine that will keep you motivated, strong, fit and focused for the summer ahead!

If you are new to strength training then I recommend you have a read through some of our other articles on physical preparation for injury prevention and performance, including important topics such as core stability, posture and myofascial release. These can be found at pacehm.com.au in the media link.

Remember to pay close attention to your form and aim for three sessions per week.

Each exercise should be done for three sets of between 12 and 20 reps. Go through the list – rest for one to two minutes – then repeat the list two more times. Make sure your body is warm prior to starting, and it's a good idea to 'roll or release' the areas shown in a previous issue.

#### **SQUAT CHOP**

- We like to use balance boards for this one but it can be done from the floor.
- Squat with form and take the weight to your opposite shin.
- As you stand 'chop' the weight with a straight arm across your body and above your head.

#### **RENEGADE ROWS**

- Start in a push-up position.
- Row a dumbbell up to your chest.
- Try not to rotate your torso.

#### HAMSTRING PULL-INS

- Start with feet on ball.
- Lift hips off floor with glutes.
- Use glutes and hamstrings to pull the ball into you.

#### BIKE

- 30 seconds hard, 30 seconds slow. Repeat five times.
- Can also alternate with skipping, running, rowing etc.

#### HANGING LEG RAISE

- Hang from beam or chin-up bar.
- Use core to curl your knees to chest.
- Return legs three-quarters of the way down. Repeat.

#### **SIDE BRIDGE OPENS**

- Can be done with a thera-band or dumbbell.
- Start in side-bridge on an elbow.
- Use a straight arm and take the band or dumbbell across your body – follow hand with your eyes.

#### **BENCH JUMPS**

- 30 seconds jumping, 30 seconds rest. Repeat three times.
- Start facing a medium height step or bench.
- Jump up on it with two feet and then down off it with two feet.
- Switch stance and repeat quickly.

#### **CLIMBER TO SCORPION**

- Start in push-up position.
- Bring one knee to opposite shoulder and extend leg out – don't touch floor.
- Then take leg back and reach heel up to ceiling like a scorpions tail.
- Swap legs and repeat.

#### FINALLY

Slowly cool down and stretch your chest, thighs, calves and hamstrings.



A HEALTHY PACE



















For more information contact us at **info@pacehm.com.au** or ask us questions on our Facebook page – get to that at:

www.pacehm.com.au

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Ryan Poole - Exercise Physiologist and Level 2 Strength & Conditioning Coach. PACE Health Management



### Workplace health

Did you know it has been estimated that the healthiest Australian employees are three times more productive at work than their colleagues,<sup>[1]</sup> and the increase in preventable disease and workplace injury resulting from unhealthy living is a major cause of workplace absence or disruption?<sup>[2]</sup>

Not only does improving the health of your employees improve your businesses performance it also has the added benefit of reducing absenteeism, improving morale and decreasing the frequency and costs of workers compensation. Not to mention the physical and mental health improvements obtained by the employees themselves – including a greater capacity to enjoy life both in and outside the workplace!

One of our recent programs at South East Water has gained great traction within the workplace and another program at Mackay Consolidated Industries delivered fantastic results with 90% of the 180 participants making lifestyle changes that they are confident of sustaining!



#### "

The LIFE program has taught me more about long term health benefits rather than just quick weight loss. This has resulted in having more energy and an increase awareness of the healthy behaviours necessary to achieve and maintain lifestyle changes.

South East Water employee



"

I wanted to thank you and your team for the incredible amount of work you put into running our Health and Wellbeing program, Sept 2013-Feb 2014.

I appreciated your input, advice and experience in developing the program, and your flexibility in delivering to a team of over 180 people, across morning and afternoon shifts.

The professionalism and passion shown by yourself and the presenters was exceptional, and I hope to be able to work with PACE again in the future.

Jacqui Morel OHS & Return to Work Coordinator



[1] & [2]: Medibank Private (2005) The Health of Australia's Workforce

CALL CLOSEST CLINIC TODAY FOR MORE INFORMATION ABOUT OUR WORKPLACE HEALTH OR INJURY PREVENTION PROGRAMS.

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