



## Module 4 Summary:

### Understanding Effective Exercise

Checklist, before you move onto this module, have you:

- Read the module lesson from previous module?
- Watched the education video?
- Completed the exercise class at least 3 times last week?
- Had a 90% adherence rate to the new habit, adding a vegetable to each meal?

Completed the previous modules assignments:

- o Complete video: leg workout.
- o Review information sheet: Calorie counting antidote.
- o Review information sheet: Vegetable phytonutrient cheat sheet.
- o Weekly adherence sheet - week 3.

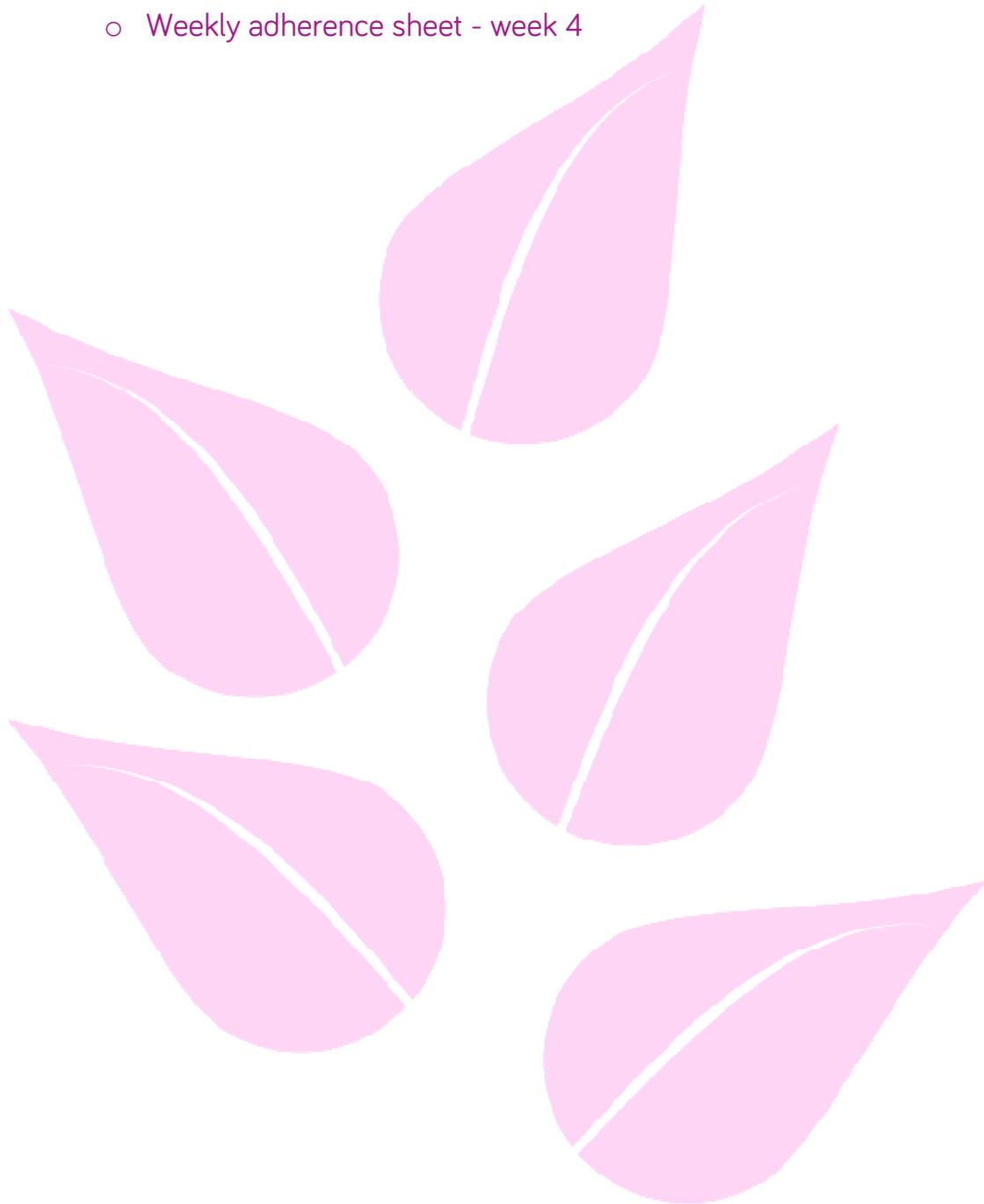
This week we are going to look at improving your exercise routines and understand there are three elements to exercise: strength, cardio vascular and flexibility. We need to work on all 3 elements not focus on one, to exercise effectively and safely. We will outline workout drinks, whether they are needed and how to make your own

Then we will move on to our habit of eating more of our starchy carbohydrates after exercise. So eating less bread, pasta and cereal until we have exercised and gaining our carbohydrates from vegetables before we exercise.

We look at GI of carbohydrates to help understand which carbohydrates are more nutrient based.

Homework assignments this week are:

- Complete video: Back exercise
- Review Info graph: Urine colour chart & after workout meal
- Weekly adherence sheet - week 4



# *Module 4 : Understanding Effective Exercise*

**Habit 4:** Eat majority of other carbohydrates after exercise

**Exercise of the week:** Back health

Before we tackle our nutritional habit this week, let's talk exercise, my favourite subject.

It is very important for everyone – children and adults (younger and older) – to be active. Activity has a strong influence on good health and well-being. It is beneficial to get into the habit of doing some regular and enjoyable physical activity.

As you age your metabolism begins to slow which makes burning fat and losing weight harder. The hormones responsible for all of your youth-like qualities such as healthy skin tone, strong lean muscle, robust energy and sex drive, start declining more each year.

Without exercise your bones become weaker and more brittle by robbing your body of vital minerals that are essential for strong bones.

It's not just your physical qualities that get negatively affected by ageing...your brain suffers as well. Your memory, your ability to solve problems, and your decision making skills all start to decline and worsen each year.

On the positive side, exercise is the answer (well I would say that ;-)

## Exercising helps to:

- ✓ Re-ignite your metabolism, reprogramming your body so you can readily start burning fat right away.
- ✓ Stimulate your endocrine system, creating a resurgence of youth enhancing hormones so can get infinitely more energy—and gain lean and strong muscle
- ✓ Increase bone density.
- ✓ Live longer and more healthily.
- ✓ Keeps your bones, muscles and joints healthy.
- ✓ Promotes good co-ordination, muscle strength, flexibility, core stability and a sense of feeling great.
- ✓ Decrease the risk of coronary heart disease, stroke and diabetes, and the associated risk factors such as hypertension.
- ✓ Boost your brain power, enhancing memory and improving your cognitive function making you as sharp as a tack.
- ✓ You'll reduce body's ageing process. So, your biological age will age slower than your chronological age—making you look and feel younger each year that passes.

## So let's get exercising....

The only certain method for losing weight is to take in less energy than you expend - so let's get walking. You have started to clock your steps over the last few weeks and all I have requested is that you note the number of steps. There are no judgements, just observation.

How many steps have you taken each day, can you see a pattern? Are you remarkably similar each day?

Can you get your 'steps' record to hand? Have you thought about increasing the number of steps over the last few weeks?

Please tell me you have been recording them. The excuse that the 'dog ate it' or 'it went in the washing machine' won't work, we are too long in the tooth for that. I spent a VAST amount of money, researching and purchasing the highest tech 'pedometer' so don't tell me the battery is flat - cos the pedometer came with a spare battery.

If the pedometer doesn't suit you for whatever reason, invest in yourself, buy one that does suit you. Or use an app on your smart phone. Find something that works for you and wear it everywhere, every day. Remember new habits take at least two weeks to cement, so we need to start bedding in this walking habit. Start parking further and walking to work, walk the dog, walk the children. Maybe you could also consider investing in buying a dog, or borrowing a kid!

Walking is great for you, saves you money, always keen to do that. Think of all those car journeys, petrol money you can save. Plus, it gets you out and about. I have a lovely group of walkers who come en masse to my Pilates class.

Join a walking group, there are loads on line. My mum is in a group in Edinburgh, there is a group in my village they are ubiquitous. Doesn't fit your lifestyle? Make one up, find some mates or find a mum and baby walking group, go out at lunchtime - walking meeting?

Instead of meeting up with pals for a coffee and cake, I promise you will get to the heart of the matter much more quickly if you chat and walk. Psychologists, counsellors always put their chairs on an angle so there is no direct eye gaze, it helps people to open up. So walking side by side, and then chatting through

troublesome teenager or annoying work colleague problems, might help to bring a more clarity and a positive outcome.

### Let's get specific...

What does a 'sedentary lifestyle' actual mean? Well obviously that doesn't apply to us, because we walk every weekend, totter to the shops, play with kids. ERMmmm think again, ideally we need to work up to 5 hours of exercise a week, stretched across 3 different exercise types. 5 hours 5 hours 5 hours!!

That is not what the NHS advise, that is way too much. I just wanted to sow the seed. Here are the NHS guidelines:

#### **NHS Guidelines for adults aged 19-64:**

To stay healthy, adults aged 19-64 should try to be active daily and should do at least 150 minutes/2.5 hours of moderate aerobic activity such as cycling or fast walking every week, and strength exercises on two or more days a week that work all the major muscles (legs, hips, back, abdomen, chest, shoulders and arms).

These guidelines are the minimum to keep us healthy, but we need to stretch ourselves a little further if we want to raise our metabolism and lose weight.

So I am going to suggest that you consider walking every day PLUS try to include three exercises routines a week. It would be advantageous to try three different exercise workouts per week - one flexibility class, weights class and a sweaty class or really fast walk of about 1/2 hour. So fast that you are breathing quite hard.

## Exercise platforms essential to injury prevention and weight loss

The three exercise platforms that you need to alternate to get the best from your exercise program.

- ✓ Weights - weight bearing or resistance training e.g. Body Pump or weights in class
- ✓ Cardiovascular exercise - getting out of breath! e.g. walking very fast so out of breathe.
- ✓ Flexibility & Stretching - e.g. Yoga or Pilates

Combining and alternating these types of exercise will help increase your muscle mass, which will in turn increase your metabolism and burn fat more.

Most people tend to specialise, you see a beautiful yoga body, but they don't get any cardio vascular work. You see a very fast runner yet they can't touch their toes. Please don't go for one type of exercise, you need all three for fitness.

### Exercise for busy lives

We are going to work towards short and targeted exercises. You will have noticed over the last four weeks we have introduced short, exercise videos.

I want you to keep working on these videos, work on one a week and make sure you know what you are doing and then progress to the next module.

## Workout drink - MAKE YOUR OWN!

If you are aiming to work out hard and fast you may need to replace lost minerals, electrolytes. If you work out makes you sweat a lot, then consider adding:

Viridian Sports Electrolyte Fix to your water bottle - half a teaspoon in a litre of water.

Plus, if you are having difficulty recovering from your workout, then add your protein drink. I haven't recommended one here, but please visit your local health food store, they will supply you with plenty of information. Please don't be put off by the Hench looking, bulky bloke on the front of the products. I know they can look very intimidating and off putting. They do serve a purpose and you will find that vegans, vegetarians and normal ladies also use protein powders to supplement their diets, and help recovery after exercise.

Look for a product that has:

- ✓ few ingredients
- ✓ no aspartame
- ✓ little or no carbohydrates (unless you are exercising over a two hour period)

## Nutritional work: Carbohydrates in our diet.

In the last module we looked at the food pyramid where over 50% of calories came from carbohydrates like bread and pasta, had progressed. The general recommendation is that we have now begun to reduce our carbs to a quarter of the plate.

However, we still have conflicting messages - recently dietary plans, like Atkins then 'Paleo' diets, are quite extreme and ask us to reduce carbs even further, to eat very little or zero carbohydrates. Whilst others consider that carbohydrates are good and fats are bad.

Let's look to the middle ground and whilst considering that carbohydrates give you energy, especially for runners and athletes. So the more active you are the more carbs you need to fuel and recover from that activity. However, we don't need that much if we have a sedentary lifestyle.

For great nutrition, the specific amount of carbohydrates (carbs) depends on your body size, type and how much you exercise.

However, that is fine tuning for later on, so for the moment and for weight loss lets' start with getting most of your carbohydrates from vegetables at each meal and saving most of your starchy carbohydrates after exercise.

### What are starchy carbs....

Carbohydrates are made up of three components: fibre, starch, and sugar. Fibre and starch are complex carbs, while sugar is a simple carb. Depending on how much of each of these is found in a food determines its nutrient quality. Starchy foods (complex carbs) include potatoes, legumes (lentils, split peas, kidney beans and chickpeas) beans, rice, oats, quinoa, grains, and breads.

Simple carbohydrates are sugars like honey, table sugar and, of course, more nutrient-rich fruit and dried fruit. These do not need to be broken down further, so the body can use them for quick boosts of energy.

### How carbs work in the body...

Carbohydrates are broken down by the digestive system into simple sugars.

The more fibre in the food and the longer it takes the body to breakdown, we feel fuller for longer. Plus the body can take its time to sort out what it needs and remove what it doesn't – helping our bowel movement. Incidentally whilst talking 'poo', be aware that you will start to go more frequently, ideally after each meal, as your metabolism works better. You will be obtaining more nutrients from your food and it is healthier clean out for your body. If you are at all concerned please discuss with me on FB group or personally.

These sugars are then carried in the bloodstream and delivered to cells in your body with the help of a hormone called insulin. In the cells, these sugars provide energy to your body.

Inside your muscles carbohydrates are stored as glycogen, and this is what gets used to provide energy during intense cardio and resistance or weight training. When it becomes depleted after the session, your body is exhausted, and at this point it is screaming out for sugar, as this is the quickest way of replenishing your muscles' carbohydrate stores.

This process of increasing your sugar then triggers an increase in insulin which drives protein to your muscle cells. So carbohydrates at this time are important – the carbohydrate gets digested and, quick as a bullet, used for refuelling. So startchy carbohydrates after exercise – helps with exercise recovery and fat burning in the longer term.

When you eat simple carbohydrates however, while you're at complete rest, they get turned into triglycerides, which are stored in your fat cells for use as energy later. Too much of them and you may release too much insulin into your bloodstream.

The increase in insulin, then tricks your brain into thinking you need more sugar, which can then trigger sugar cravings - see the cycle? I am sure many of you have experienced this. Doing this over a longer period of time and it can lead to overproduction of insulin, the potential for your pancreas to become insulin resistant, and eventually diabetes.

So, to conclude, carbohydrates have an important use, and should not be seen as the bad guys, as lots of diets out there do, calling them 'sins' or whatever. Their effect is totally dependent on our activity levels. For example, if you're trying to lose fat, eating two bananas while lying in bed would be silly, but eating the same two bananas immediately after a heavy weight-lifting session – superb!

So reduce your simple carbohydrates, even starchy ones when you are inactive, when sitting on the sofa watching TV or working at your desk.

**When you do enjoy your carbohydrates**

**consider having the best quality,**

**why not you have earned them....**

Whole grains starchy carbohydrates - are healthier because of their higher nutritional content, levels of fibre, minerals and vitamins. Whole grain bread from a baker's mmmmmmm, you can almost smell that, plus there are less additives and sugars. Try brown rice, you will be surprised, I prefer it to white rice

Try adding your legumes like lentils, split peas, kidney beans and chickpeas to your casserole, chilli, stew or curry dishes in place of meat, which will cut the saturated fat and the price of the meal.

Stay away from high-fat starches and fried foods like chips and fries, breads and pizzas.

But if I can convince you to increase anything it is Quinoa - superfood, superfast, super versatile, use it instead of bread for lunch.

### **After exercise...**

The majority of your starchy carbs should come from whole, minimally processed, carbohydrate sources and it is okay to have some carb free meals, such as salad and steak, especially if you haven't exercised that day.

Ensure that you have most of your daily carbs after exercise - if you want your slice of bread, get up and get going, earn it. Get your metabolism revved up and then eat your starchy carbs.

Let's plan - go for a good walk or complete the exercise download and then have your potatoes or bread.

Consider reducing the carbs that you eat in the morning i.e. sugary cereals- try a few proteins based breakfasts consider including eggs. We are not saying 'low carbs', we are discussing timing your carbs. You are more than welcome to eat them with your meals but just think about EARNING THEM!

Earn your sandwich after your lunchtime walk. Try your exercise download before your evening meal. If you don't want to exercise, fine, eat less carbs with that meal. So you always win, you are complying with the rule.

## Glycaemic index of carbs....

GI stands for glycaemic index. It is a system for measuring the speed at which the body breaks down carbohydrate foods into glucose (sugar), the body's source of energy. Foods are ranked from 1-100. Glucose (the simplest form of sugar – look out for it on food labels) has the maximum score of 100 and all other carbohydrates are measured against this

Energy & Carbs, glucose comes from all your carbohydrates not just sugary carbs, the higher the sugar the more the body panics and shifts the sugar to fat storage. Like you, your gorgeous, clever body can make glucose much more efficiently if it is able to do it in its own time, slowly. You will have more energy if the body can process gently - rushing sugar down = panic stations!

**BEWARE: white bread scores 100, the same as pure sugar!**

In fact, any processed food has a high sugar or GI because the processing is basically carrying out some of the digestion outside of the body, before you even eat the food.

High GI carbohydrates, such as white bread or cornflakes, are digested rapidly by the body, causing an immediate and sharp rise in blood sugar levels. Low GI carbohydrates on the other hand, such as oats or granary bread, take longer to digest and therefore release their sugar slowly and gradually into the bloodstream.

Insulin is a hormone secreted by the pancreas, which regulates blood sugar levels, and controlling insulin levels is key to the GI diet. Insulin's job is to reduce blood sugar levels by removing any excess glucose from the blood and storing it as fat. It also acts as a guardian of fat stores, encouraging the body to maintain its precious fat stores!

Eating high-GI carbohydrates and the resultant increase in blood sugar, causes large amounts of insulin to be secreted. Eating mostly low-GI foods will result in less insulin production and therefore less fat storage.

High insulin levels in the body create a biochemical environment that encourages fat storage.

Blood sugar and insulin levels also affect appetite and energy levels. When levels are balanced we feel full for longer and our mood and energy levels are more consistent. However, the highs and lows of blood sugar and insulin produced by eating high-GI carbohydrates lead to increased appetite, sugar cravings and fluctuations in mood and energy levels. The GI diet therefore is based on eating mostly low-GI carbohydrates and avoiding high-GI ones.

#### For example, a typical GI Menu

- ✓ Breakfast: Scrambled eggs on rye toast
- ✓ Snack: An apple and 7 almonds
- ✓ Lunch: Wholemeal pitta bread filled with salmon and watercress, natural yoghurt with berries.
- ✓ Snack: An oatcake with hummus
- ✓ Dinner: Grilled salmon, brown rice, mixed vegetables.
- ✓ Snack: A glass of warm almond milk

Although GI only applies to carbohydrates, it is also influenced by protein and fat, both of which slow down carbohydrate digestion, reducing the overall GI of a meal.

### In summary:

The habit for this week, for weight loss have a smaller amount of carbs at each meal, in the form of starchy vegetables at meal times before exercise but save most of your starchy carbs after exercise.

### If you want to eat bread, pasta and rice:

- ✓ Focus on more unprocessed varieties
- ✓ Save most of them until after exercise

Begin to look at your food differently - earn your carbs. Consider if you are having an exercise 'rest' day then it is okay to have a meal without any carbohydrates.

This is going to be hard for some to take on board, that is why I am introducing it as an educational process, think of it as a continuum, or a work in progress.

Food Timing, Simple sugars and highly processed starches - minimise intake

Whole foods minimally processed carbohydrates - eat soon within 1-2 hours after exercise

Fruits & Vegetables - eaten with each meal (with emphasis on vegetables)

## Assignments

1. Complete video: Back exercise
2. Info graph: Urine colour chart
3. Weekly adherence sheet - Week 4

**Links:** Viridian Sports Electrolyte Fix 100ml - [www.viridian-nutrition.com](http://www.viridian-nutrition.com)

