

Guidelines for weight Management by Dr. Chris Spalding

You eat right - right? Foods rich in complex carbohydrates. But you still don't look the way you'd like. Most people are the same. We eat right, we exercise - but obesity has increased by 23% in the last 10 years. Something is wrong!

Today's diet rules say to eat more complex carbohydrates, less protein, and avoid fat at all costs. This does seem logical - if you don't eat fat you don't get fat. Unfortunately this logic is wrong!

In the blind rush to reduce excess body fat, fat phobia runs rampant. You avoid fat, reduce dietary protein because it contains fat and increase the amounts of carbohydrate because they are fat free. The result is a highly unbalanced diet which is, in fact, responsible for the dramatic increase in obesity, as well as the extreme difficulty in reducing body fat.

Why is excessive carbohydrate so bad? Because of the hormonal response created by the foods we eat. Any dietician or nutritionist can tell you with great accuracy the fat or calorie content of a meal - but what of the hormonal response to that meal? In fact, the foods you eat have certain hormonal consequences which dictate whether you burn excess body fat for energy or store even greater amounts of body fat. The macro-nutrient composition of foods (protein, fat and carbohydrate) determines this hormonal response, and long term weight control is impossible until you can control this response precisely.

Diets rich in carbohydrates cause an increase in the release of a hormone called insulin. Elevated insulin levels are responsible for increasing body fat, and make it difficult, if not impossible to reduce excess body fat, regardless of the duration or intensity of exercise. Increased insulin release also creates fatigue, constant hunger and cravings for more and more carbohydrates.

The brain requires blood glucose (ie. blood sugar) for its energy needs. Insulin inhibits the release of blood glucose, which means the brain sends out a signal to increase blood glucose levels. You find yourself eating more and more carbohydrates, and can quickly become a carbohydrate addict. Unfortunately the body has a limited capacity to store carbohydrate, but an unlimited capacity to convert excess carbohydrate to fat!

High levels of insulin also activate an enzyme called lipoprotein lipase. This enzyme is the "gate keeper" for the fat cells. In other words, excess calories are stored as fat with incredible ease due to excessive carbohydrate and high insulin levels. It also means that the body is totally unable to access stored fat for more energy as long as insulin levels remain high.

Recent studies have shown that some weight loss programmes increase the activity of lipoprotein lipase by ten times! As soon as you come off the programme, your fat cells will now act like "magnets" and there will be a very rapid accumulation of body fat again. This is called the "Yo-Yo" syndrome that every dieter has experienced. Will power is NOT the problem. Endocrinology (the science of hormones) is the answer.

Aerobic exercise is considered important for permanent weight control. Some think the real benefit of exercise is to burn calories - this does happen, but the actual benefit is that it helps to reduce insulin levels and raise metabolism. When insulin levels decrease you can burn your own body fat, a virtually unlimited source of energy.

In one recent study, even highly trained, already very fit athletes were able to lose 20% of their body fat and increase their endurance by 180% when using the correct dietary guidelines. The less fit, more overweight person will get even more dramatic results. It's simply good science. You CAN reprogramme your body to maximise the burning of body fat.

So, what's the secret? The answer is both simple and complicated. What is the macro-nutrient balance required for fat burning? If your meals had the correct composition, you would be in a position to burn stored body fat constantly throughout the day and permanent weight control would be a reality.

WHY CARBOHYDRATES ARE A PROBLEM.

Millions of people are on the "low fat, high carbohydrate and exercise 3 times a week" deal and still gaining body fat. So why is this?

No matter how much exercise you do - 2 hours a week or 2 hours a day - your diet is still the most important factor in determining what fuel you are using to power that exercise.

When you work out, are you burning body fat or not?

Today's low fat/high carbohydrate thinking is beginning to change. There is a tendency to think that if you don't eat fat you can't get fat. This is very wrong. Eating too many carbs - even fat free ones - can easily make you fat because AT LEAST 40% of the carbs you eat are stored as fat, due to the way carbs are broken down in your body.

Carbs, no matter where they come from - whole wheat bread, pasta, honey or chocolate chip ice cream - are all broken down to sugar (glucose) in the bloodstream. Sugar is sugar - the body doesn't know where it came from. So, after eating carbs - blood sugar increases. This causes your pancreas to release insulin. One of insulin's jobs is to control where sugar is stored. Some is used as energy, about 2000 calories at the most is stored in muscles (as glycogen) and the rest is stored as FAT.

Insulin also stops stored fat being used as energy (See: Food, Fat and Hormones) and the result is the continual laying down of consumed carbs as body fat.

The rising levels of insulin also cause blood sugar levels to fall - resulting in hunger (especially for more sugar) low energy levels, mood swings and feeling sleepy after meals.

This process can be stopped - and stored body fat can be accessed as a fuel source - by getting your diet organized.

It is quite possible to get as much as 80% or more of your energy from fat, producing both more energy and less fat stored.

All natural fats are good for you - such as the omega 3 and omega 6 fats found in many fresh foods - as long as you eat the right amount of them.

We should not indulge in the fat phobia which nearly everyone seems to have today. The only bad fats are the artificial ones - hydrogenated fats (like margarine) - or fried or overheated fats.

Dietary fat also boosts metabolism, which is one of the best ways to burn more stored body fat. (See: Exercise).

Protein is also very important, not so much for energy production (around 10%) but mainly for tissue repair. But if not enough fuel is available from fat or carbs then protein breakdown for energy will rapidly increase. This means, for the athletes, loss of hard-won muscles.

THE SOLUTION IS NOT DIFFICULT.

Stay away from refined sugar. No potatoes or bananas.

Organize your diet to be as close to 40% carbohydrates, 30% protein and 30% fat, as you possibly can. This is the best combination to ensure rapid fat-store breakdown as well as normalization of blood sugars.

This is not as hard as it may sound.

1. Get a copy of New Visions 'Diet and Exercise' brochure and follow the plan.
2. Food bars and shakes are available with this exact combination to make it easy for you. Try New Vision's 40-30-30 Bars and Shakes
3. Learn about Thermogenesis (See this website) and use a good quality thermogenic supplement.

Then enjoy the new you. More energy and the loss of that remaining excess body fat.

THERMOGENESIS.

Understanding what thermogenesis is, and how we can use it to our advantage, is an important step in successful long term weight control.

Simply, thermogenesis means the creation of heat. It is the way in which all mammals, including us, warm ourselves up to operating temperature.

This is done by burning body fat to create heat energy.

Obviously then, if we could somehow increase this process - we would be able to increase the amount of stored body fat we burned up.

To create an increase in this fat-burning process, many substances have been used over the years which are known to have a thermogenic effect. One of the best known is caffeine - others are the herb Ephedra, and even thyroid hormone has a thermogenic effect. (This is why people with low levels of thyroid hormone tend to gain weight and also get cold).

All these substances have a stimulating effect on fat cells - they cause fat cells to release fat into the bloodstream where it is burned to create heat energy.

One of the difficulties in using these substances as weight control aids is that they often tend to stimulate other tissues, not just fat. The heart may be stimulated, or the lungs or adrenal glands - causing heart palpitations or agitation. Most people are aware of the jittery feeling which is often felt after too many cups of coffee.

One herb which is an excellent thermogenic aid is called Citrus Aurantium. It is preferred over most of the others because it has a very specific effect on fat cells, without stimulating other tissues at all. In other words it will create the fat burning effect we are looking for, without any unpleasant side effects.

Other herbs can be added to the formula for a more enhanced effect.

An excellent product which contains all the necessary ingredients to activate high levels of thermogenesis in the body, is called PowerTrim

PowerTrim contains high levels of citrus aurantium and is manufactured and supplied out of Adelaide, Australia.

It is supplied with a 12 month, 100% unconditional guarantee of effectiveness. If you are not satisfied with your results your money will be refunded in full.

Information about this, and any other products mentioned in this website, including the guarantees, can be obtained from the numbers above.

People suffering from high blood pressure, or certain types of heart problems, should exercise caution when using this product. Medical advice should be sought.

ARE YOU OVERWEIGHT? OR MAYBE WORSE?

This is a question which bothers many people.

Do they have a problem at all? Is their health at risk? How much of a problem is it? What should I really weigh?

The simplest way to work this out is known as calculating your Body Mass Index (BMI).

First - measure your height accurately (without shoes) in metres.

Then weigh yourself accurately (in kilograms). Your bathroom scales might not be good enough for this. Get your doctor to weigh you - or often there is an accurate pair of scales at the local pharmacy.

Get a calculator, and calculate your BMI by taking the SQUARE of your height in meters, and dividing it into your weight in kilograms.

If the answer you get is between 18 and 25 you are of normal weight.

If it is between 25 and 30, you are overweight.

If it is over 30 you are considered obese.

EXAMPLE.

Lets take some of 183 centimeters in height. (6 feet exactly in the old scale). This is 1.83 metres.

Lets say their weight is 101 kilograms.

Using the calculator - the square of their height is 1.83 multiplied by itself - ie. 1.83×1.83 . This figure is 3.35.

Divide this figure into 101 (their weight) and the answer is 30.15.

This would make this person just slightly into the obese range.

EXCEPTIONS.

This calculation is not accurate for everyone.

The BMI method assumes that if you are carrying any extra weight, then this weight is body fat. This is certainly a valid assumption for most people - but if you are a trained "strength/power" athlete then it may not be true for you.

People who work out with weights or train to increase muscle mass, may be heavier than recommended, but the extra weight may not be fat. If you fit into this category, then the conclusions drawn from a BMI calculation may not be accurate for you.

You should have a Body Fat Percentage calculation done (your local gymnasium can arrange this) - it takes specialized equipment and a trained operator.

For the vast majority of people a BMI calculation is the easiest and most accurate way of determining your current situation.

RECIPES.

Here are a couple of meals which have approximately the correct balance of carbohydrates, protein and fat (ie. 40%,30%,30%).

Once you get going on the programme, and develop a few recipes of your own, please send them to us (use the phone, fax or email for 'Megaburn' from the New Vision 'Diet and Exercise' brochure) and we'll put them on the website so that others can benefit.

Meal 1.

Tuna or salmon salad with mayonnaise on whole bread. Mixed salad of lettuce, capsicums and spring onions. Oil and vinegar dressing (from the Diet and Exercise brochure).

Meal 2.

Broiled fish. 1/2 cup brown rice. 1/2 cup mixed bean salad. 1/2 cup cooked mixed vegetables.

Many thanks to the people who have contributed the following recipes to us.

Try these:-

POTATO AND BACON SLICE.

500 grams peeled potatoes - thinly sliced.
150 grams leeks (approx. 1 large) - or brown onions (approx. 1 1/2 medium) - sliced.
100 grams lean bacon (approx. 2 rashers) - chopped.
1/2 cup grated tasty cheese.
1/2 cup evaporated milk.
freshly ground black pepper.

1. Alternate layers of potato, leek, bacon and cheese in a 1 litre microwave container.
 2. Sprinkle with the pepper and pour the milk over the mixture.
 3. Cover. Cook on high for 10 - 15 minutes. (Cooking time will vary depending on the power of your microwave).
- Serves 4.

INDIVIDUAL PIZZAS.

1 small pita bread.
1 tbs tomato paste.
1 small button mushroom - sliced.
1/4 rasher bacon - sliced.
6 strips capsicum.
1/2 ring pineapple - cut into pieces.
anchovies and olives (optional).
1/4 cup mozzarella cheese.

1. Spread tomato paste over pita bread.
2. Top with rest of ingredients.
3. Place in microwave container with a layer of paper towel on top.
4. Cook on high for 2 mins approx.

To cook 3 pizzas at once - stack apart in a suitable microwave container. Cook on high for 4 mins approx.

TOMATO, MUSHROOM AND SILVERBEET SALAD.

1 clove garlic, crushed.
1 tsp olive oil.
450 grams tomatoes (approx 5 medium) cut into small wedges.
150 grams mushrooms, halved.
60 grams silverbeet leaves (approx 2 large) well washed and stem removed, cut into wide ribbons. Spinach may be used instead.

1. Place garlic and oil in large microwave proof salad bowl.
 2. Cook on high for 1-2 minutes.
 3. Add all vegetables and toss.
- If a warm salad is preferred, the salad can be cooked again for a further 1-2 minutes.

SPINACH PASTA SLICE.

2 cups pasta bows - cooked according to instructions.
50 grams brown onions (approx 1/2 medium), finely chopped.
1/2 tbs olive oil.
3 eggs.
3/4 cup milk, warm.
1/2 cup tasty cheese, grated.
1 tbs french mustard.
2 tsp mixed herbs.
1 tbs flour.
40 grams frozen spinach - defrosted and well drained.

1. In a large (2 litre) microwave container, cook the onion and oil on high until soft.
2. Combine eggs, milk, cheese, mustard, herbs and flour and mix thoroughly to combine.
3. Add mix from Step 2, spinach and pasta to the onions, stirring well.
4. Smooth the top to form an even layer and microwave on high for about 10 minutes.
5. Season to taste before serving.

CARBONADO OF BEEF.

2lbs (900 grams) round steak, sliced and pounded.
1 cup (250 ml) seasoned flour.
2 tbs (30 mls) vegetable oil.
1 onion, peeled and finely chopped.
2 garlic cloves, crushed and chopped.

2 tbsp (30 mls) wine vinegar.
1 cup (250 mls) beer.
1 1/2 cups (375 mls) commercial brown sauce, heated.
1/4 tsp (1 ml) nutmeg.
Salt and pepper.

1. Preheat oven to 350 deg.F. (180 deg.C.)
2. Dredge pounded meat slices with flour.
3. Heat oil in large frying pan. When hot, add meat and sear 2-3 mins each side. Season well.
4. Remove meat and transfer to oven-proof casserole: set dish aside.
5. Add onion and garlic to frying pan - cook 3 mins over medium heat.
6. Pour in vinegar and beer: cook 3-4 mins over high heat.
7. Stir in brown sauce and nutmeg: cook 1 min and correct seasoning.
8. Pour sauce over meat. Cover casserole and cook 1 1/4 hours in oven.

PASTA IN TOMATO SAUCE.

1 1/2 tbsp vegetable oil.
1/2 onion, chopped.
2 green onions, chopped.
1 tsp chopped parsley.
1 tsp chopped fresh oregano.
1 tsp chopped fresh thyme.
1 tsp chopped fresh basil.
3 garlic cloves, chopped.
2 cans (28oz, 796ml) tomatoes, drained and chopped.
5 1/2 oz (156ml) can tomato paste.
1/4 tsp sugar.
2 cups (500ml) tubular pasta.
4 cups (1 litre) hot water.
1 tsp white vinegar.

1. Place 1 tbsp (15mls) oil, both onions, parsley, herbs and garlic in casserole. Cover and microwave 3 mins on HIGH.
2. Mix in tomatoes, paste and sugar. Microwave 14 mins uncovered on HIGH - stirring occasionally.
3. Remove casserole, stir and set aside.
4. Place pasta, water, vinegar, dash salt and rest of oil in another casserole. Cover and microwave 5 mins on HIGH.
5. Stir pasta, cover and continue microwaving on MEDIUM for 12 mins, stirring frequently.
6. When cooked, drain well, rinse and spoon portions equally on 2 plates.
7. Reheat tomato sauce 1 min in microwave and serve over pasta.

EXERCISE.

There are, of course, many different types of exercise a person could do - which one you choose depends on your goals. Do you want to run a marathon or enter a body building contest?

It may sound like an incredibly obvious statement - but different kinds of exercise get different results. Yet most people still begin their exercise programme without really considering this. They may want to get a bit fitter - so they join a gym and lift some weights. Or they want to lose some weight so they join a tennis club, or maybe play a few rounds of golf. These are very poor choices for achieving those particular goals.

In this section we are going to concentrate on the kind of exercise which creates effective, rapid fat loss.

There are 4 things to consider.

1. How often should I do it?
2. How long should I do it for?
3. How fast should I go?
4. What exact type of exercise works best?

In order to create fat loss we need to get our bodies to do 2 things more efficiently - we have to help control our insulin levels, and we need to raise our metabolic rate (BMR) so that our internal functions are faster and we will therefore burn more fat.

The kind of exercise which does this is called AEROBIC (literally meaning 'with air'). This is a VERY specific and VERY precise type of exercise.

In order to burn fat as the fuel to power the exercise process, plenty of oxygen needs to be available in the bloodstream. If oxygen begins to run out, then fat can't be burned easily and we begin to burn sugar instead - this would be ANAEROBIC (without air) exercise and is totally useless for us to achieve our 'fat loss' goals.

So, the first rule is this:- NEVER exercise at a pace at which you begin to become breathless.

As you become fitter there is a tendency to want to speed up a bit. DON'T.

Stay at a pace where you could have a comfortable conversation with someone. You may even find this a bit tedious after a while. But if you speed up and get out of breath you will be burning sugar not fat, and this will not help you lose fat at all.

Next - studies have shown that in order to raise our metabolic rates (BMR) - which will create more fat burned - exercise needs to last at least 12 to 15 minutes. This must be constant exercise. Time spent wandering around a tennis court looking for a lost ball doesn't count. It must be 15 minutes of constant, continuous effort. 30 minutes is better still, but we'll work up to that.

Don't forget you will be taking it fairly easy during this time. We are NOT talking about a half hour of red faced panting, sweating and suffering.

Studies have shown that if you exercise at the correct pace, your BMR goes up about 25% for a full 12 hours, even after the exercise has stopped.

It even stays about 10% higher for as long as 48 hours - before dropping again to the level it was before you exercised.

This means that if you were to exercise every 2 days you will keep your BMR raised about 15% over its normal level.

This translates to 15% more calories burned 24 hours a day, 7 days a week, 52 weeks a year. Not just while you are exercising but every second of your life. No matter what you're doing, sleeping, watching TV - you will have created a body which simply works more efficiently and burns more fat ALL THE TIME.

So, the next 2 rules are:- Do something every 2nd day. And each session must last at least 15 minutes (30 is better) not including warm up and cool down time.

One session for 2 hours at the weekend is NOT the same as 3 or 4 shorter sessions spaced out through the week.

Finally - what type of exercise works most effectively for fat loss?

To understand this part is very simple.

The fuel burned during exercise (fat) is burned in the muscle fibres. The muscle fibres are like the little "engines" where the fuel is burned.

So the answer is easy - the more fuel (fat) we want to burn - the more muscle fibres we should use while exercising.

To do this we make sure we are using the largest muscles in the body when we choose which exercise to do.

The largest muscles are :- the buttock muscles, front and back of the upper leg, and the calf.

These muscles together create the action of swinging the hip joint back and forth, bending and straightening the knee, and flexing the ankle.

(Now you know why cyclists are so fit and lean - Miguel Indurain, multiple winner of the Tour de France was reported to have a resting pulse of 28 beats per min.)

Cycling is great - so is running, walking (lift the knee up high), stair stepper machines are terrific - you get the picture.

You can also see why swimming is maybe not the first choice - sure it works, but a lot more hours have to be put in because the muscles used are generally a lot smaller.

So now we have the formula for exercise for fast fat loss.

1. Keep it slow - you should be able to talk comfortably during the workout.

2. At least 12 to 15 minutes continuous - not counting warm up and cool down. As you get fitter, increase the DURATION (to 30 minutes) not the PACE.

3. Do something every 2nd day.

4. Choose an exercise where you are using the large leg and hip muscles - and if the arms and upper body are involved as well, then that is better still.

Perhaps now it may be clearer why previous exercise attempts may not have been as successful as you may have wished.

Do it this way and you will definitely succeed at losing fat.

Finally, I would like to complete this website with 2 articles of a more complex, technical nature.

The first is specifically about insulin, and its role in food metabolism - and how its varying levels can affect health.

The second article is about cholesterol.

Details of the scientific reference material to support the statements made in these 2 articles - plus further reading material on the subject - can be obtained from the 'Megaburn' order line numbers in the Diet and Exercise brochure.

INSULIN.

The role of insulin in the body is to get cells to take up glucose from the blood. If, for some reason, this is not happening, the person is said to have Insulin Resistance (IR).

IR appears to be a common and important biochemical feature of a number of abnormalities in body metabolism which are associated with the risk of cardiovascular disease.

IR is followed by chronic raised levels of insulin in the blood (hyperinsulinemia) which induces changes in fat metabolism, glucose tolerance and blood pressure. Lots of evidence is now accumulating to indicate that hyperinsulinemia and hyperglycemia (raised blood sugar levels) - even in the absence of any symptoms - are closely associated with, possibly even the cause of, high blood pressure (hypertension), coronary artery disease (CAD) and Non-Insulin-Dependant-Diabetes-Mellitus (NIDDM - a form of diabetes not requiring insulin therapy).

It has been recognised that a syndrome can exist in people who are free from recognised disease, consisting of IR, glucose intolerance, hyperinsulinemia, hypertension, significant tendency to overweight, increased VLDL triglyceride (the "bad" fats) and decreased HDL cholesterol (the "good" fats). The New England Journal of Medicine has called this syndrome a 'secret killer'.

In order to maintain adequate glucose levels in this situation, the pancreas secretes more and more insulin to try and get more glucose in the cells. This leads to chronic hyperinsulinemia and NIDDM will only be prevented as long as the pancreas can keep this up.

Researchers have demonstrated clearly that this syndrome can be induced by a DIETARY EXCESS OF ANY CARBOHYDRATE which leads to a rapid rise in blood sugar levels.

It is not an uncommon state. Many biochemical changes occur in the body as a result of this excess insulin.

INSULIN AND FATS.

Insulin has been shown in many studies to be linked to serum lipids and lipoproteins.

One such study showed that triglycerides, LDL and total cholesterol were significantly higher, and HDL was significantly lower in subjects with high insulin levels, compared to normal controls. Raised insulin levels and raised blood fat levels are very common findings in NIDDM, obesity, inactivity and overeating. High blood levels of triglycerides are secondary to the high insulin levels.

Insulin also seems to contribute to local deposition of cholesterol and to stimulate development of cholesterol plaques.

INSULIN AND BLOOD PRESSURE.

High insulin levels and IR are again well documented in cases of raised blood pressure. Hypertension is certainly well known to be linked to several coronary risk factors including elevations in insulin, cholesterol, triglycerides and lower HDL levels.

Many studies have shown that hyperinsulinemics as a group have higher blood pressure than normal. It has been suggested by some that IR is a fundamental mechanism in the onset of high blood pressure.

One researcher has stated that a "very substantial proportion of 'essential hypertension' is simply a symptomatic variant of our old nemesis - refined carbohydrate disease."

Several researchers have shown that the morbidity or mortality from Coronary Artery Disease does not change when high blood pressure is reduced with drugs -

presumably because all the other factors remain unchanged by the medication.

INSULIN AS AN INDEPENDANT RISK FACTOR.

Several studies have shown hyperinsulinemia to be a risk factor for vascular disease - regardless of cholesterol, glucose, blood pressure or other factors. Elevated insulin levels are common in subjects with coronary, cerebral or peripheral vascular disease and may have a direct effect on the formation of atheroma (clumps which block up the arteries).

Hyperinsulinemia affects the lining of the blood vessels, stimulates the uptake of fats by cells and stimulates the smooth muscle cells, which form most of the plaques in atherosclerosis (hardening of the arteries).

Raised glucose levels, even if only mild, appear to be a significant cardiovascular risk factor.

In a study of over 18,000 people, heart disease mortality and morbidity increased abruptly and dramatically in those whose blood sugar levels exceeded 95mg/dl, 2 hours after ingesting 50 grams of glucose.

This is a very surprising result as 95mg/dl is a level FAR below that considered significant with respect to diabetes or faulty glucose metabolism.

Possibly the raised glucose levels are contributing to the continued output of insulin from the pancreas, thereby bringing into play all the other factors previously discussed.

CONCLUSION.

The syndrome described here helps us to understand the relationship between excess consumption of carbohydrates, insulin resistance, hyperinsulinemia, glucose intolerance, overweight or obesity, hypertension, and lipid and lipoprotein abnormalities and their relevance to cardiovascular risk.

There seems little doubt that IR and hyperinsulinemia, through a range of mechanisms, are meaningful contributors to cardiovascular disease.

Fortunately this problem is readily amenable to nutritional changes - in fact, it cannot be satisfactorily dealt with pharmacologically.