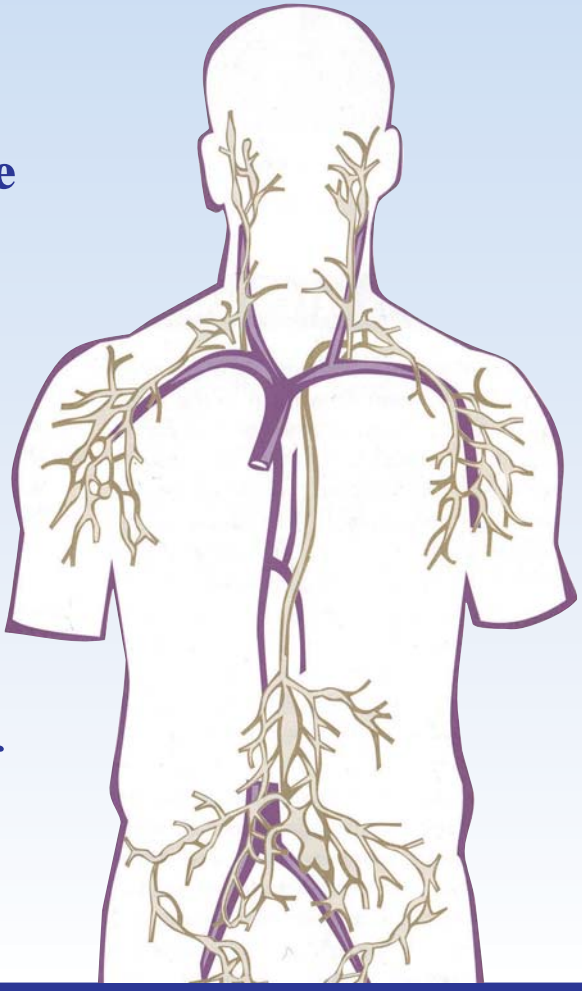
Diabetes

Improvement Program

Its Prevention & Reversal

A best-selling authors complete guide to using foods and supplements to slow and reverse the complications of Diabetes



Foreword

" Sugar is without question the number one murderer in the history of humanity" Sakurazawa, 1964 - A Japanese author of numerous health books

Diabetes is a chronic disorder of carbohydrate, fat and protein metabolism characterised by fasting elevations of blood sugar (glucose) levels, and a greatly increased risk of heart disease, stroke, kidney disease, and loss of nerve function. Diabetes can occur when the pancreas does not secrete enough insulin or if the cells of the body become resistant to insulin. Hence, the blood sugar cannot get into the cells, which then leads to serious complications.

The classic symptoms of diabetes are frequent urination, excessive thirst and excessive appetite. Because these symptoms are not very serious, many people who diabetes do not seek medical care.

Whilst you should always seek medical advice this book shares with you secrets of various foods that when added to your daily diet will help control blood glucose.

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WHAT IS DIABETES?

Diabetes mellitus is a condition in which the amount of glucose, or sugar, in the blood is too high because the body cannot use or store it properly.

There are two main types of diabetes. These are:
Type 1 diabetes, in which the body is unable to produce insulin, a hormone that enables the body to use glucose found in foods for energy. This type of diabetes usually, but not invariably, appears in childhood or young adulthood. This condition requires daily injections of insulin from the outset.

Type 2 diabetes develops when the body still produces insulin, but either there is not enough or it does not work properly (which is known as insulin resistance). This type of diabetes usually appears in people over the age of 40 who are often overweight although it often appears before the age of 40 in South Asian and African-Caribbean people and, increasingly, in young adults and children who are severely overweight. It is treated either by diet alone or by diet and tablets or, if and when the diabetes worsens, by diet, tablets and insulin injections.

Whilst this book focuses on type 2 diabetes, much of the general care and dietary advice applies to both types.

WHAT ARE THE SYMPTOMS OF DIABETES?

There may be a wide variety of symptoms. The most common are:
- increased thirst
- frequent passing of water
- tiredness
- irritability
- weight loss
- increased hunger
- frequent skin infections
- genital itching or frequent episodes of thrush
- wounds that won't heal
- blurred vision

Sometimes, especially in type 2 diabetes, there are no symptoms. This can be unfortunate as it can lead to someone having the condition for years without realising it.

WHO GETS DIABETES?

Anyone can get diabetes which affects just over 2 per cent of the adult population. Type 2 is by far the commoner: if you have a close relative with the condition you are more likely to Develop it. Another important risk factor for type 2 is obesity. Type 2 is more common as you grow older, especially over the age of 40, although it is a worrying fact that younger people, even children, are developing the condition, largely as a result of obesity. Other risk factors include physical inactivity, high cholesterol and high blood pressure.

Certain ethnic groups are more likely to have the condition: these include Asians, Native Americans, African Americans and Hispanic Americans. Also, women who develop diabetes during pregnancy are more likely to develop type 2 diabetes later in life.

TYPE 2 DIABETES IN CHILDREN AND TEENS

Until recently diabetes occurring in young adults and children was invariably type 1. But in recent years there has been an alarming increase in type 2 diabetes in young people. This is probably due to the increase in obesity in these age groups along with sedentary lifestyles and poor eating habits since most affected youngsters are overweight or obese.

HOW IS DIABETES DIAGNOSED?

These days, with governments now encouraging family doctors to practise preventive medicine, more and more cases of type 2 diabetes are being diagnosed as a result of routine screening using a blood test. Guidelines vary from country to country but generally all adults over the age of 40 or 45 should be tested for diabetes. If the test is normal the screening is repeated every two or three years.If any of the following risk factors are present screening should be carried out at an earlier age and more often:

- being overweight (BMI greater than 25)
- previous abnormal fasting glucose
- previous abnormal glucose tolerance
- having a parent or brother or sister with diabetes
- having had diabetes during pregnancy
- having given birth to a baby weighing more than 4 kg (9 lb)
- belonging to an ethnic group known to be at high risk e.g. Asian, Hispanic American, African American
- HDL cholesterol level equal to or less than 9 mmol/l (35 mg/dl)
- triglyceride level equal to or greater than 2.8 mmol/l (250 mg/dl)
- high blood pressure

WHAT IS IMPAIRED GLUCOSE TOLERANCE (OR 'PRE-DIABETES'?)

Impaired glucose tolerance, or IGT, is a condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes to be made. It is diagnosed initially by measuring an individual's fasting blood glucose. A normal value is less than 5.6 mmol/l (100mg/dl). 7.0mmol/l (125 mg/dl) or higher indicates diabetes. Levels in between point to impaired glucose tolerance. If the blood tests are borderline your doctor may order a more accurate investigation known as the oral glucose tolerance test (OGTT). In this test an individual fasts for 8 to12 hours, following which the blood glucose is measured before a drink of a glucose-containing solution and then again 2 hours after. Anormal result is when the blood glucose rises no higher than 7.8 mmol/l (140 mg/dl) 2 hours after the drink. If the 2-hour blood glucose rises to 11 mmol/l (200 mg/dl) or higher this indicates diabetes. A result between 7.8 mmol/l (140 mg/dl) and 11 mmol/l (200 mg/dl) indicates IGT.

Does IGT lead to diabetes?

Somewhere between 1 and 10 per cent of people with IGT will develop diabetes each year. The risk increases if you are overweight, physically inactive, have a strong family history of diabetes, or belong to an "at-risk" ethnic group.

Can you prevent IGT or pre-diabetes developing into diabetes?

Yes, you can do a lot significantly to reduce that risk by adopting a healthy diet, shedding excess weight and increasing your level of physical activity.

HOW IS DIABETES TREATED?

Type 1 diabetes is always treated with insulin. In type 2 diabetes, unless the diabetes is severely out of control, weight loss and changes in diet may be sufficient, at least initially. The blood glucose is closely monitored and if, despite the diet the diabetes is not controlled the next step is oral treatment in the form of tablets. There are various different types which may be used separately or in combination. If, in time, the diabetes fails to be controlled by a combination of diet and tablets, insulin injections may be needed. diabetes, or belong to an "at-risk" ethnic group.

DIABETES TABLETS

Oral antidiabetic drugs are usually prescribed only if you fail to respond to a combination of a suitable diet and increased physical activity after a period of, usually, 3 months. It is important to remember that tablets are as well as, not instead of diet and exercise. are used for the treatment of type 2 (non-insulin-dependent) diabetes mellitus. They should be prescribed only If the patient fails to respond adequately to at

least 3 months' restriction of energy and carbohydrate intake and an increase in physical activity. They should be used to augment the effect of diet and exercise, and not to replace them.

Antidiabetic tablets work by lowering the blood glucose – either by stimulating the pancreas to produce more insulin or by increasing the effectiveness with which the body uses the insulin it produces.

The different types of antidiabetic tablets are:
Sulphonylureas
These include:
- chlorpropamide (daily dose 100 – 500 mg)
- glibenclamide (brand names: Daonil, Semi-daonil, Euglucon, Diabetamide, Gliken, daily dose 2.5 – 5 mg)
- gliclazide (Diamicron, Diaglyk, 40 – 320 mg)
- glimepiride (Amaryl, 1 – 6 mg)
- glipizide (Glibenese, Minodiab, 2.5 – 20 mg)
- gliquidone (Glurenorm, 15 – 180 mg)
- tolbutamide (500 – 2000 mg)

Sulphonylureas stimulate the pancreas to produce more insulin. They are usually prescribed for individuals who are not overweight or in whom metformin (another widely-used antidiabetic) cannot be used or tolerated. There are several different sulphonylureas. Chlorpropamide and glibenclamideare long-acting sulphonylureas and carry a greater risk of hypoglycaemia for which reason they are avoided in the elderly where shorter-acting alternatives, such as gliclazide or tolbutamide, are used instead. In fact chlorpropamide has so many side-effects that it is rarely used today.

Sulphonylureas can cause weight gain and are therefore used only if diabetic control is poor control despite adequate dieting. Metformin is the antidiabetic of choice in obese individuals. In the elderly and in those with liver or kidney problems there is a risk of hypolycaemia. In people with kidney problems tolbutamide, gliquidone or gliclazide are usually preferred.

Where possible sulphonylureas are not used in individuals with severe liver or kidney problems or in pregnant or breast-feeding women. Side-effects are not very common and are usually mild. They include nausea, vomiting, diarrhoea and constipation. Chlorpropamide, being long-acting, may cause the serious side-effect of hypoglycaemia. It may also cause facial flushing after drinking alcohol. Other uncommon side-effects of any sulphonylurea include disturbed liver function, allergic skin reactions and, rarely, blood disorders.

Biguanides
There is only biguanide currently available: metformin (Glucamet, Glucophage, 500 – 3000 mg daily). This antidiabetic increases the uptake of glucose by the body's tissues which of course lowers the amount of glucose in the blood. It is the first choice antidiabetic in individuals who are overweight and in those in whom a sulphonylurea has not proved sufficiently effective. Unlike sulphonylureas it does not cause hypoglycaemia and is less likely to lead to weight gain.

Gastro-intestinal side-effects, especially diarrhoea, are quite common when metformin is first used, and in some individuals may persist, especially at high doses. Metformin is not used in individuals with kidney problems because of the risk of a serious metabolic side-effect called lactic acidosis.

Other antidiabetic drugs
Acarbose (Glucobay, 50 – 600 mg daily) slows down the digestion and absorption from the bowel into the blood stream of starch and sucrose. Its commonest side-effect is flatulence, but an initial daily dose 50mg once daily reduces side effects.

Nateglinide (Starlix, 60 mg – 540 mg daily) and repaglinide (NovoNorm, 0.5 mg – 16 mg daily) increase insulin production very rapidly and for just a short time. For this reason they are taken shortly before each main meal. In the UK nateglinide is licensed only for use with metformin.

Pioglitazone (Actos, 15 – 30 mg daily)and rosiglitazone (Avandia, 4 – 8 mg daily), which belong to a group of antidiabetic drugs called thiazolidinediones, reduce insulin resistance which results in lower levels of blood glucose concentration.

INSULIN
If your type 2 diabetes is not adequately controlled by diet and oral antidiabetic drugs your doctor may recommend that insulin injections are added to or substituted for your tablets. Insulin may also be used temporarily if you have a temporary illness or if you are having a surgical operation. Pregnant women with type 2 diabetes are treated with insulin if diet alone fails.
When insulin is added to oral therapy, it is usually given at bedtime as isophane insulin, but when insulin replaces tablets it is usually given as twice-daily injections of a biphasic insulin or isophane insulin mixed with soluble insulin).

Two important potential complications of insulin are weight gain and hypoglycaemia. Fortunately, weight gain may be reduced if insulin is given in combination with metformin.

Insulin is usually given by subcutaneous (under the skin) injection. Many individuals find that insulin pens, which hold the insulin in a cartridge and which meter the dose, are the most convenient way to inject insulin. But the conventional syringe and needle is still preferred by many individuals and is necessary for those insulins which are not available in cartridge form.

SICK DAY RULES FOR DIABETICS ON ANTI-DIABETIC TABLETS

If your diabetes is controlled by diet and tablets it is important to know what to do if you become ill. This is a time when your diabetes control may be upset. The reason for this is that your body's natural response to illness is to make more glucose which will of course increase your blood glucose level rise, even if you are vomiting and not eating or drinking.

- Continue to take your tablets.
- Test your urine or blood at least four times a day.
- Drink at least 2 litres (5 pints) of water and other sugar-free liquids each day.
- Try to stick to your normal diet. If you cannot to do this, replace your meals with fluids such as soup, fresh fruit juice, milk or Lucozade. Below are more suggestions on this. Drink a small amount every hour. For example:
- Fruit Juice (unsweetened), 1 small glass (100 ml, 4 oz)
- Milk, 1 cup (200 ml, 8 oz)
- Lemonade(fizzy/sweetened), 1 glass (150 ml, 6 oz)
- Coca-Cola (not ‘light’ or diet), 1 glass (150 ml, 6 oz)
- Lucozade, _ small glass (50 ml, 2_ oz)
- Yoghurt(plain), 1 small carton (120 g, 4 oz)
- Yoghurt(fruit), _ small carton (60 g, 2 oz)
- Ice cream, 1 scoop
- Jelly (ordinary, not ‘light’), 2 tablespoons (30 ml, 1 oz)

If you have severe diarrhoea or you are vomiting so much that you are unable to keep anything down talk to your doctor or diabetic nurse as you may need to be hospitalised.

WHAT OTHER PROBLEMS CAN DIABETES CAUSE?

Poorly controlled diabetes can lead to many long-term problems. These include:
- heart attacks
- strokes
- high blood pressure
- blindness

• kidney failure
• limb amputations caused by blood vessel disease and nerve damage
• male impotence
• increased risk of birth defects in babies born to women with diabetes

Heart attacks, strokes and high blood pressure
Heart disease is the leading cause of diabetes-related deaths, and people with diabetes are two to four times more likely to develop coronary heart disease and stroke than people without diabetes. Linked to both coronary heart disease and strokes is high blood pressure, and nearly two-thirds of people with diabetes have high blood pressure.

Blindness
Diabetic retinopathy is a leading clause of partial sightedness and blindness.

Kidney failure
Diabetes is the most common cause of end-stage renal, or kidney, disease (ESRD). This results in severe kidney failure that requires dialysis or kidney transplantation. These are all very serious complications of diabetes.

The risk of any of them developing is massively reduced by keep your blood glucose levels as close to normal as you can, which we call tight control. The other important preventive action, which your doctor will monitor, is to keep your blood pressure as low as possible.

CAN DIABETES BE PREVENTED?

You can do a lot to reduce the risk of developing type 2 diabetes. In particular you can:

• Avoid being overweight. If you are already overweight try to get down to a normal weight (BMI of 25 or less).
• Eat a healthy diet with plenty of fresh fruit and vegetables. Avoid excess fat and high GIfoods (see later for more on diet).
• Take a reasonable amount of exercise each day. In the UK government guidelines are for everyone to walk 10,000 paces each day – the equivalent of about 2 miles.
• Have your blood pressure checked regularly.
• Ask your doctor to do a blood test to screen you for diabetes if you are over the age of 40 (younger if you have any of the risk factors described in How is Diabetes diagnosed?).If the test is normal the screening should be repeated every two or three years.

HOW DO I PREVENT COMPLICATIONS FROM DIABETES?

Complications from diabetes are not inevitable. Research has shown that it is possible to reduce the risk of complications by almost 50 per cent by keeping your blood glucose as close as possible to normal. Good blood glucose control can also help to slow complications that are already present.

The most accurate test of good blood glucose control is the haemoglobin A1c, or HbA1c, test. The test, which your doctor is likely to arrange every 3 to 6 months, shows how well your blood glucose has been controlled over the previous 2 months. Ideally your HbA1c should be 7.0 or less. Results around 8.0 or higher point to poor diabetes control and the need to reassess your treatment.

Remember that the HbA1c is a test of average blood glucose. You can get a good result even if your blood glucose levels swing from high to low. So it is important also to monitor your blood glucose levels at home. You should aim for around 7.8 mmol/l (140 mg/dl) or less before eating and 10 mmol/l (180 mg/dl) or less two hours after eating. Occasional high readings are okay but if your readings remain high for three days or more you should consult your doctor or diabetic nurse.

HYPOGLYCAEMIA

Every individual using insulin should be aware of the possibility of hypoglycaemia (very low blood glucose level) and how best to try to avoid it. Loss of warning of hypoglycaemia is a serious problem for insulin-treated individuals, especially for drivers and those in certain occupations. Good control of diabetes reduces the risk of hypoglycaemia, whilst frequent hypoglycaemic episodes reduce the warning symptoms experienced by the patient. Incidentally, if you are taking beta-blockers (for blood pressure, for example) you need to be aware that these can blunt hypoglycaemic awareness and also delay recovery.

This important aspect of insulin treatment requires careful adjustment by your doctor or diabetic nurse of the type of insulin as well as the dose and frequency of injections together with careful thought about the timing and quantity of meals and snacks.

Driving

In most countries drivers on medication for diabetes are required to notify the regulatory authorities. In the UK, for example, all drivers on medication for diabetes, whether insulin or tablets, are obliged to notify the Driver and Vehicle Licensing Agency as are drivers of Group 2 vehicles (heavy goods vehicles or public service

vehicles) whose diabetes is controlled by diet alone. You are not allowed to drive if your hypoglycaemic awareness is impaired.

Diabetics treated with insulin, as well as those on oral antidiabetic drugs who are at particular risk of hypoglycaemia, should check their blood glucose level before driving and every 2 hours on long journeys. Diabetics treated with insulin should make sure that they carry sugar and they should not drive if they are late for a meal.

What should I do if hypoglycaemia occurs or if warning signs develop whilst driving? You should:

- stop the vehicle (in a safe place)
- switch off the ignition;
- eat or drink sugar-containing food or drink
- wait until you have fully recovered before continuing your journey. Remember that this may take at least 15 minutes, and, ideally, you should first checking your blood glucose level.

PREVENTING HEART DISEASE, STROKE, POOR CIRCULATION

The commonest and most important long term complications of diabetes are those arising in the heart and blood vessels resulting in heart disease, stroke and poor circulation.

There are two reasons for this. First, people with diabetes tend to have high fat levels in their blood, often caused by high blood glucose levels. The fats clog up and narrow the arteries, a condition called atherosclerosis. Second, high blood glucose levels damage arteries by making their walls thicker and less elastic so that less blood can pass through. If the artery affected supplies blood to your heart this can lead to angina or a heart attack; if the artery is to your brain a stroke can result; and a blocked artery in your legs can cause pain or, if much worse, may result in the need for amputation.

So how can you reduce the risk? There are several ways:

If you smoke, stop smoking. Like diabetes, nicotine narrows your arteries. Stopping smoking is the single most important thing you can do.

Lose weight if you are overweight. Being overweight tends to increase your blood glucose, blood fats and blood pressure.

Take regular exercise. Exercise is good for your heart and helps keep your blood glucose and blood fat levels normal. And, of course, exercise helps you to control your

weight. But do take advice from your doctor or nurse about how much and what kind of exercise is advisable for you.

Make sure your blood pressure stays normal. High blood pressure increases the risk of stroke. Make sure your blood pressure is checked every 3 to 6 months. Aim for 130/80 or less. To achieve this you may need to lose weight, take more exercise, cut down on your salt intake, and take blood pressure lowering medication. Remember, good blood pressure control is as important as good blood glucose control.

Keep your blood glucose levels tightly controlled. Monitor your blood glucose levels. Aim for around 7.8 mmol/l (140 mg/dl) or less before eating and 10 mmol/l (180 mg/dl) or less two hours after eating. Occasional high readings are okay but if your readings remain high for three days or more you should consult your doctor or diabetic nurse. Remember too that your HbA1c test is important. Ideally this should be 7.0 or less.

Keep your cholesterol and triglycerides (blood fats) in the normal range. High blood fat levels – cholesterol and triglycerides - increase your risk of heart disease. There is more detailed information on cholesterol later in this book. But, for now, the important point is to aim for an HDL (the 'good' cholesterol) of at least 1.2 mmol/l (45 mg/dl) and an LDL (the 'bad' cholesterol) of less than 2.6 mmol/l (100 mg/dl). Aim, too, for a triglycerides level of less than 1.7 mmol/l (150 mg/dl). To achieve these levels you will need to follow a healthy diet (low fat, high fibre, the right kind of carbohydrates), take more exercise and stop smoking. These days many doctors also prescribe cholesterol-lowering statin drugs. Attend for regular follow-up at your doctor's diabetic clinic so that you have all your tests (blood tests, blood pressure, etc) done regularly.

NEUROPATHY

What is neuropathy?

Neuropathy is damage to the nerves that pass from the brain and spinal cord to our skin, muscles and other parts of the body. Diabetes is a common cause. Chemical changes in the nerves are due to high blood glucose levels over a period of time. In addition high blood glucose levels may damage the blood vessels through which oxygen is supplied to the nerves.

There are different types of neuropathy. The commonest is sensory. This causes numbness and tingling ('pins and needles') in the feet and legs – occasionally in the hands and arms. Sometimes there are shooting or burning pains in the legs, especially in bed. But often there are no symptoms, and the condition is discovered only by

the doctor testing the skin of the feet and finding lack of sensation. The complication of lack of sensation is the development of foot ulcers. This is why good foot care is so important in diabetes.

Motor neuropathy, which is less common, may cause muscle weakness, especially in the legs. It may also alter the shape of feet which makes wearing shoes difficult. Both problems can lead to problems with walking.

Autonomic neuropathy is the condition in which nerves to internal organs are affected.Examples are:
- Heart and blood vessels, causing palpitations or dizziness
- Sweat glands, causing dry skin, especially of the feet
- Stomach, causing nausea or vomiting
- Intestine, causing diarrhoea or constipation
- Bladder, causing difficulty in passing urine
- Penis, cause erection difficulties

What should I do to avoid developing neuropathy?
The essential point is to keep your blood glucose levels under tight control. And if you already have neuropathy, tight control will stop the neuropathy from becoming worse.

How do I prevent a foot ulcer?
See a chiropodist or podiatrist regularly
Follow the foot care advice your doctor or diabetic nurse gives you

Is there any treatment for painful neuropathy?
There are several medications which your doctor can prescribe. These include:
- paracetamol
- non-steroidal anti-inflammatory drugs such as ibuprofen
- tricyclic antidepressants, amitriptyline and nortriptyline. An alternative antidepressant which can be effective for the treatment of neuropathic pain is gabapentin
- carbamazepine and phenytoin may be useful for shooting or stabbing pain, but side effects are common
- capsaicin cream 0.075% may be useful for painful diabetic neuropathy, but it produces a severe burning sensation when first used
- opioid analgesics, such as dextropropoxyphene, methadone, oxycodone and tramadol, may be used when other treatments have failed
- tetracycline or codeine phosphate may be helpful in autonomic neuropathy causing diarrhoea

• metoclopramide or domperidone may be helpful for in autonomic neuropathy causing nausea (which is due to the stomach emptying too slowly, a condiktion known aS gastroparesis

If none of these are effective more help may be available at a specialised Diabetic clinic or Pain clinic where other treatments, such as acupuncture, may be available.

WILL DIABETES GO AWAY?

No. Diabetes, whether type 1 or type 2, will not go away. What treatment can achieve is to keep blood glucose levels within the normal range. But the underlying problem – the body's inability to produce enough insulin or the body's tissues being resistant to insulin, or both – remains.

For example, if at the time of diagnosis of type 2 diabetes you are overweight, subsequent weight loss through diet and exercise will help lower your blood glucose levels to normal. But if you were to re-gain that lost weight because you started to slip on your diet and exercise your previous high blood glucose levels would return. And, even if you were to stick to your diet and exercise program and maintain a healthy weight, in time your diabetes will progress to the point where you will need medication (tablets and possibly insulin).

So what is the point of diet and exercise and weight control? The answer is that, although you cannot halt the progression of the disease, you can slow it down and you can significantly reduce the risk of diabetes complications.

DIABETES MYTHS

As with so many medical conditions there are several myths surrounding diabetes, especially type 2.

Type 2 diabetes is mild diabetes

Not true. Diabetes, whether type 1 or type 2, is a serious condition which, if not properly controlled, can lead to serious complications.

Diabetes causes blindness

Whilst it is true that diabetes is an important cause of blindness because of diabetic retinopathy there is much that you can do significantly to reduce the risk. Tight blood glucose control together with avoiding being overweight, taking adequate exercise and avoiding smoking all help to reduce the risk.

Diabetes runs in families

True, type 2 diabetes does run in families. Although you cannot change your genes you can still do a lot to reduce the risk of developing diabetes even if the disease is in your family. In particular, you can avoid being overweight, adopt a healthy diet, and take a reasonable amount of exercise.

Eating too much sugar causes diabetes

Not true. The causes of diabetes are genetic and to do with lifestyle. The only link between eating sugar and diabetes is that sugar is, of course, calorific, and consuming too many calories from whatever sources of food can contribute to excess weight – a major cause of type 2 diabetes.

Diabetics should not play sport

In the UK there have been several famous sportsmen with diabetes. Two striking examples are Sir Steve Redgrave, the five times Olympic gold medal rower, and Gary Mabbutt, who was captain of Tottenham Hotspurs. In fact, sport is an excellent way of improving diabetic control and reducing the risk of diabetic complications, especially coronary heart disease. Of course, if you use insulin, it is important to avoid 'hypos' (low blood glucose levels) whilst doing strenuous exercise. You should always carry a sugary snack in case your blood glucose level falls, and you may need to reduce your insulin dose prior to exercise. Obviously you should discuss this with your doctor or diabetic nurse.

Diabetes stops you having certain jobs

In many countries it is true that diabetics who need insulin are not allowed to do certain jobs. In the UK these include:

- any job that needs a heavy goods vehicle or passenger carrying licence
- being a train driver
- being a cab or taxi driver
- any job with the Post Office that involves driving
- being an airline pilot
- being a member of the cabin crew (applies to most airlines)
- being in the armed forces
- working offshore (including any job with most cruise liners)

You are not allowed to drive if you have diabetes

Although in some countries, such as the UK, diabetics who need insulin are not allowed to drive certain types of vehicle (for example, buses and LGVs), it is no more dangerous for a diabetic with good control of his or her disease to drive than it is for a non-diabetic.

People with diabetes should eat special diabetic foods
Not true. All a diabetic needs is a healthy balanced diet which focuses on plenty of fresh fruit and vegetables, low glycaemic index foods, low fat foods and low salt. Diabetic foods still increase blood glucose levels and are often more expensive than normal foods.

SEXUAL DYSFUNCTION AND DIABETES

Diabetes may affect sexual functioning in one of several different ways.

Women
Two problems may occur in diabetic women. First, the menstrual cycle may affect blood glucose levels. Some women, for example, find that their blood glucose levels are higher than normal during the few days before a period. This may be corrected by adjusting the diet or taking more exercise. A women who requires insulin may need to increase her dose.

Second, some women are troubled with a dry vagina that can cause vaginal irritation or infection or trouble with sexual response because of nerve damage. There are also prescribed drugs that may affect sexual response.

Any of these problems should be discussed with a women's doctor or diabetic nurse.

Men
The important problem that may affect diabetic men is impotence or, to use its more 'politically correct' term, erectile dysfunction. This is the condition of repeatedly being unable to produce or sustain an erection sufficient to perform sexual intercourse. Erectile dysfunction, or ED, is common in non-diabetic men over the age of 50. In diabetes ED often affects men considerably younger and probably affects about 2 in 5 diabetic men.

What causes ED?
Sometimes the problem is psychological, sometimes physical, sometimes a combination of the two. There are several physical causes:
- Diabetes-related nerve damage, causing a reduction in blood flow to the penis
- Diabetes-related blood vessel damage, which also results in reduced blood to the penis
- Smoking
- Excessive alcohol consumption
- Prescribed drugs for diabetes
- Prescribed drugs for high blood pressure

This is a problem that an individual needs to discuss with their doctor because the condition can often be treated successfully.

Treatment of ED

There are several different treatments:

- A change of medication currently being prescribed for a co-existing condition such as high blood pressure is sometimes all that is necessary.
- Vacuum therapy: a rigid tube is placed over the penis and a pump is used to empty the air out of the tube. This results in blood being drawn into the penis. A ring is placed on the base of the penis to maintain the erection during intercourse.
- Self-administered injections just before sexual intercourse into the penis or applications into the urethra (the opening at the end of the penis) will increase the flow of blood to the penis.
- Drugs taken by mouth are the most popular treatments. The drugs belong to a group called Phosphodiesterase type-5 inhibitors. Currently there are three: sildenafil (brand name, Viagra), tadalafil (Cialis) and vardenafil (Levitra). These drugs are very safe but should not be used in men on prescription nitrate drugs for the heart or in men with abnormally low blood pressure, recent stroke, unstable angina, and coronary thrombosis.

MANAGING DIABETES / LIFESTYLE / DAILY LIVING
WHAT SHOULD I EAT (EATING WELL)

Let's start by dispelling one myth. There is no such thing as a diabetic diet. Instead there is a healthy diet. And this is a diet that is good for everyone, whether they have diabetes or not.

We'll look at what constitutes a healthy diet in detail in later sections. But for now, the key points are:

- Eat regularly. Have at least 3 meals a day. If you can, have several snacks through out the day. BUT – an important 'but'! – you must at the same time reduce the amount of food that you eat at your main meals so that your total intake of food over a 24 hour period is sensible. Frequent eating, sometimes known as 'graze eating' (because that's what cows and sheep do!) is the healthiest way to eat because it avoids sudden surges in blood glucose levels – those peaks and troughs. But whether you graze eat or eat the traditional 3 main meals a day it is important to eat the right kinds of foods.
- Eat less sugar. This is not because sugar causes diabetes, which it does not, but because sugar and foods containing sugar cause sudden highs in blood glucose levels which, as you will find out in subsequent sections, result in excess insulin production. Replace sugar and foods containing sugar with low sugar and sugar free

foods instead. More on this later.
- Cut down on fat and fried foods. Eat less butter, margarine, oil, lard, dripping, cheese and fatty meats. Choose low fat dairy products, e.g. skimmed or semi-skimmed milk, low fat spreads or cheeses. Avoid saturated fats; choose instead monounsaturated and omega-3 fats found in avocados, nuts, fish, and olive and canola oils. More on this later.
- Eat plenty of fruit and vegetables (without added fat or sauces) – at least 5 servings a day. This give you fibre and important antioxidants. Especially good are beans and legumes. Avoid canned fruits with added sweeteners or syrups. More on this later.
- Eat whole grains, such as brown rice, slow-cooking oatmeal, and whole-wheat bread.
- Focus on fish, poultry, and lean cuts of meat. Make sure you use low-fat cooking methods such as baking, roasting, or grilling.
- Eat less salt. Salt is known to increase blood pressure.
- Drink alcohol in moderation only.

One final point. Avoid so-called diabetic foods. There is no need for them, besides which they tend to be expensive and often have a laxative effect.

Let's now look in more detail at a healthy diet.

SMART CARBS, UNSMART CARBS

"All carbs are good." "All carbs are bad."

Which is right? Your answer will depend on whom you believe. If you are used to low fat diets, you may believe that it is only fats in your diet that matter and that the carbohydrates – or "carbs" – are completely unimportant. Watch your fat intake and the carbs will take care of themselves.

But if you are a fan of high protein low carbohydrate diets, such as Atkins, the message you may have received loud and clear is that, providing you virtually eliminate all carbohydrates, the fats are completely unimportant. Eat as much artery-clogging fat as you like - you will control your weight and your diabetes.

So where does the truth lie? The answer is with neither. Time for a short lesson in nutrition and biology.
Our bodies need three sources of fuel: fats, carbs and proteins. Carbs are the fuels the body prefers as a source of glucose energy. Protein is converted to glucose if carbs aren't available. What about fat? This is the emergency fuel which is stored in case we starve. When food enters the stomach special chemicals called enzymes break it

down so that the fats, carbs and proteins are absorbed into the bloodstream as small molecules. In the case of carbs these molecules are glucose.

Let's look at what happens to carbs, or glucose, next. They meet a hormone – insulin. The job of insulin, which is secreted by the pancreas gland, is to push glucose into our cells where it is converted to energy or stored as a larger chemical called glycogen. But that is not all that insulin does. One of its other important actions is to store fat. So when we eat carbs the resultant glucose causes the release of insulin. The more glucose in our blood the more insulin we produce. And the more insulin we produce the more fat gets stored in our bodies – in other words, the fatter we get. And if we keep pushing insulin too much eventually insulin can't do its job of converting glucose to energy properly so that we have to produce more of it to do the job. This is called glucose intolerance. Our cells become resistant to insulin which is why we then need higher and higher levels. The result? High levels of insulin put down more and more fat in our bodies, so we put on weight. Eventually insulin resistance reaches a level when we become diabetic. That is what a particular kind of diabetes, know as type 2 diabetes, is – insulin resistance. Or, if doesn't result in diabetes, it can cause a condition known as the Metabolic Syndrome or Syndrome X. This is a group of clinical features that includes high blood pressure, abdominal obesity (too much fat around the waist – the most dangerous place to store fat in terms of heart disease), glucose intolerance, and abnormal levels of blood fats (high triglycerides and low HDL or "good" cholesterol).

Now up to this point fans of low carb diets have got it right. But from this point on they are completely wrong. You see, every carb is digested and absorbed at a different rate with different effects on blood levels of glucose. For example, white bread causes a rapid rise in blood glucose, whilst an apple causes a much lower rise. And of course the quicker the rise and the higher the level of blood glucose the more insulin is produced. And the more rapid and higher the rise the more rapid the subsequent fall in blood glucose.

Most of us have experienced the feeling of fullness immediately after eating a Chinese meal followed by hunger only two hours later. Why is this? Simply, the carbs in a Chinese meal, especially the white rice, cause rapid high levels of blood sugar, which satisfies hunger, followed by rapid falls, which makes us feel hungry again.

But look at what happens when we eat a meal that starts off perhaps with a small portion of pasta cooked al dente, followed by a main course of your favourite meat or fish with new potatoes and lots of green vegetables, followed by fruit salad (and, go on, have some custard too, if you like!). The amount of carbs may be the same, perhaps even higher, than in the Chinese meal. But the resulting blood glucose levels are

much lower. Why? Because these kinds of carbs or digested and absorbed much more slowly. So we feel satisfied and we don't feel ravenous again two hours later. Just as important, our insulin levels haven't been pushed sky high.

So all carbs are different. Some cause rapid rises in blood glucose, others only gentle rises. The rate at which a particular carb causes blood glucose to rise is called its Glycaemic Index, or GI for short. A carb with a low GI causes gentle blood glucose rises, whereas a carb with a high GI causes steep rises. And of course this means that low GI carbs cause only gentle insulin production whilst high GI carbs cause high insulin production. Later in this book you will find a list of many common carbs divided into low, medium and high GI.

Incidentally, if you ever knew it, forget all that nonsense about "complex carbohydrates", such as potatoes, being better for your blood glucose than "simple carbohydrates". That was based on pseudo-science which has been completely disproved. The chemical structure of a carb is no pointer to what it does to your blood glucose. The only way to find out, and the way researchers have discovered the GI values of carbs, is by laboriously feeding volunteers different carbs and then measuring their blood glucose responses over a period of several hours. That is why GI values are not yet available for all foods. But we have enough information to work out a really healthy and effective diet.

Why is the GI value different for different carbs? To answer that we need to look at what exactly a carb is. The simplest carb is a monosaccharide ("mono" meaning one, "saccharide" meaning sweet). The most common monosaccharide is glucose. If two monosaccharides are joined together we have a disaccharide ("di" meaning two), the commonest example being sucrose or what we all know as table sugar. If lots of monosaccharides are joined together we get polysaccharides ("poly" meaning many), and these are known as starches which, unlike monosaccharides and disaccharides, are not sweet. Two common starches are amylose and amylopectin, the importance of which we'll see in a moment.

Another group of carbohydrates made up of lots of different monosaccharides are dietary fibes. The main difference between fibres and other carbs, such as sugar and starches, is that they are not broken down by the body's digestive system, so that they arrive at the large bowel unchanged.

Now we can look at why different carbs have different GI values.

1. The less a starch swells up when it is cooked (the technical term for which is "gelatinised") the more slowly it is digested, and so the lower the GI. Examples of less starch gelatinisation, and so low GI, are long grain rice, brown rice and al dente

spaghetti. More gelatinisation, and so higher GI, is seen in sticky white rice and over-cooked pasta.

2. The more fibrous a food is the slower its digestion. This is because the fibrous coat around seeds and plant cells provides a physical barrier. Examples of fibrous food are whole-grain bread, Pumpernickel, lentils, All-Bran and barley, all of which have a low GI. Low fibre foods, with a high GI, include cornflakes and bagels.

3. The more amylose a food has compared with amylopectin the less the starch swells and the slower it is digested. Foods with a high amylose to amylopectin content, and therefore a low GI, include basmati rise, sweet potatoes and small new potatoes, whereas foods with a high amylopectin content and high GI include white rice and potatoes (other than small new ones).

4. The less processed a food is the larger the size of its particles and the more difficult it is for water and digestive enzymes to penetrate the higher surface area of the particles. This results in lower GI values as seen in stoneground whole-wheat bread and rolled oats. Highly processed foods with a high GI include instant oatmeal, rice cakes, and white bread.

5. Acidic foods slow down stomach emptying which slows down the rate at which starch is digested. Good examples are bread and pudding made from sourdough.

6. Surprisingly, the digestion of sugar produces far fewer glucose molecules than does the digestion of starch. For this reason some breakfast cereals and some biscuits that are quite high in sugar actually have fairly low GI values.

7. Fat also slows down stomach emptying and so slows down the digestion of starch. This is the reason that potato crisps have a lower GI than boiled or baked potatoes.

As I said earlier, the GI values of food cannot be predicted. They have to be worked out by measuring blood glucose levels after each food has been eaten. This has to be done on a large number of volunteers and on different samples of the same food type. This is the reason you will find variations in published GI values of foods. Also, the way a food is cooked will affect its GI value. Overcooked pasta has a much higher GI than that which is al dente.
Rice is another food whose GI varies according to its variety. This is because differ ent rices contain different amounts of the starch, amylose. Amylose is digested slowly and the more that is present the lower the GI.

Parboiled rice - (During parboiling water-soluble nutrients pass from the outer layers to the inner, which makes this rice very nutritious) 44

Uncle Ben's Converted rice (As parboiled rice) 44

Short grain Japanese rice - (Surprisingly low GI value which probably contributes to low prevalence of coronary heart disease in Japan) 48

Brown rice (Long or medium grain nutty-flavoured rice – the most nutritious rice) 55

Long grain white rice (Providing it isn't overcooked the rice grains remain separate) 56

Basmati rice (Its lower GI value is due to its high amylose content) 58

Instant rice (Commercially pre-cooked in order to shorten preparation time in the home) 87

Dessert rice (High GI is due to absence of amylose) 88

Below is a table of GI values of some common foods. Don't treat the figures as gospel. There are enormous variations in samples of food depending on where it is grown or processed, how ripe it is (in the case of fruit), and how well cooked it is.

Different researchers have found quite a variety of values for what would seem to be identical foods. This is why you may find different values for the same food in different books.

As I have said earlier, working out the GI values of foods is not an exact science and there are all sorts of factors that can cause wide variations. So treat these figures as a rough guideline only.

First, here is a simple guide to the significance of a food's GI value:

GI less than 40: very low GI
GI 40-55: low GI
GI 55-70: medium GI
GI more than 70: high GI

FOOD	GI
BREADS & BAKERY	
Bagel, white	72
Baguette, white, plain	95
Fruit loaf	44
Hamburger bun	61
Melba toast	70
Pumpernickel	50
Wholemeal rye bread	58
Rye bread	65
Sourdough rye	53
White flour bread	70
Wholemeal wheat flour (whole wheat) bread	71
Wholemeal flour	52
Multigrain	49
100% Whole Grain bread	51
Pita bread, white	57
Muffins, blueberry	59
BISCUITS	
Digestives	59
Oatcakes	57
Rich Tea	55
Shortbread	64
CRACKERS	
Cream Crackers	65
Puffed rice cakes, white	78
Rye crispbread	64
Water cracker	71
Wheat crackers	67
BREAKFAST CEREALS & RELATED PRODUCTS	
All-Bran	42
Bran Flakes	74
Coco Pops	77
Cornflakes	81
Frosties	55
Muesli	49
Oat bran, raw	55
Porridge made from rolled oats	58

Porridge, instant	66
Puffed Wheat	74
Rice Krispies	82
Shredded Wheat	75
Special K	69
Sultana Bran	73
Weetabix	70
Sweet corn	53
Couscous	65
Rice, white, boiled	64
Long grain, boiled	56
Basmati, white, boiled	58
Rice, brown	55
Instant rice, white, boiled	69
Parboiled rice	60
Converted, white, Uncle Ben's	42
Long grain, boiled	48

DAIRY PRODUCTS & ALTERNATIVES

Custard	38
Ice cream, regular	61
Ice cream, low fat	43
Milk, full-fat	27
Milk, skimmed	32
Milk, condensed, sweetened	61
Yoghurt:	
Yoghurt, regular	36
Yoghurt, fruit, low fat	26
Soy-based milk:	
Soy milk, full fat	40
Soy milk, reduced fat	44

FRUIT AND FRUIT PRODUCTS

Apples, raw	38
Apple juice, unsweetened	40
Apricots, raw	57
Apricots, tinned	64
Apricots, dried	31
Banana, raw	52
Cherries, raw	22

Dates, dried	103
Figs, dried	61
Grapefruit, raw	25
Grapefruit juice, unsweetened	48
Grapes, raw	46
Kiwi fruit, raw	53
Lychee, tinned	79
Mango, raw	51
Marmalade, orange	48
Oranges, raw	42
Orange juice	52
Pawpaw / papaya, raw	59
Peaches, raw	42
Peaches, tinned	38
Peach, tinned in natural juice	45
Pears, raw	38
Pears, tinned in natural juice	43
Pineapple, raw	59
Pineapple juice, unsweetened	46
Plums, raw	39
Prunes, pitted	29
Raisins	64
Strawberries, fresh	40
Strawberry jam	51
Sultanas	56
Tomato juice, unsweetened	38
Watermelon, raw	72

LEGUMES AND NUTS

Baked Beans, tinned	40
Beans, dried, boiled	29
Butter Beans	31
Haricot beans	38
Kidney Beans	28
Lentils	26
Soya beans	18

MIXED MEALS & CONVENIENCE FOODS

Chicken nuggets 4	46
Fish Fingers	38
Pizza, cheese	60

Pizza, vegetarian, thin and crispy	49
White bread with spreads:	
White bread with butter	59
White bread with skimmed milk cheese	55
White bread with butter and skim milk cheese	62
White/wholemeal wheat bread with peanut butter	59

PASTA and NOODLES

Fettucine, egg	40
Gluten-free	54
Gnocchi	68
Instant noodles	48
Linguine, thick, durum wheat	46
Linguine, thin, durum wheat	52
Macaroni	47
Ravioli, durum wheat flour, meat filled	39
Rice noodles, dried, boiled	61
Rice noodles, freshly made, boiled	40
Spaghetti, white, boiled 5 min	38
Spaghetti, white, boiled 10 min	42
Spaghetti, white, boiled 20 min	61
Spaghetti, wholemeal, boiled	32
Vermicelli, white, boiled	35

SNACK FOODS AND CONFECTIONERY

Chocolate, milk, plain	43
Corn chips	63
Jelly beans	78
Mars Bar	65
Muesli bar containing dried fruit	61
Cashew nuts, salted	22
Peanuts	14
Popcorn, plain	72
Potato crisps, plain, salted	54
Honey	55

VEGETABLES

Green peas	48
Sweet corn	54
Beetroot	64
Carrots	47

Carrots	47
Parsnips	97
Potato, baked	85
Potato, boiled	50
Potato, french fries	75
Potato, instant mashed	85
Potato, mashed	74
Potato, new	57
Sweet potato	61
Swede	72
Yam	37

ETHNIC

Chapatti	58
Hummus	6
Stuffed grapevine leaves (rice & lamb stuffing with tomato sauce)	30
Glutinous rice	92
Jasmine rice	109
Lychee, canned in syrup	79
Rice cracker, plain	91
Rice noodles, dried, boiled	61
Rice noodles, fresh, boiled	40
Rice vermicelli	58

BEVERAGES

Lucozade	58
Juices	95
Apple juice	40
Grapefruit juice, unsweetened	40
Orange juice	48
Pineapple juice, unsweetened	50
Tomato juice, canned, no added sugar	46

Artificial sweeteners

Before we leave carbs let's look at an issue that worries many diabetics, especially those that need to lose weight: artificial sweeteners.

Most people think that all sugar must be avoided. In fact, it is safe to eat small amounts of added sugar and foods that naturally contain sugar. The reason is that different kinds of sugar have different effects on blood glucose levels.

But what do we mean by a 'small amount' of sugar? We generally mean around 1 or 2 teaspoons at each meal. Examples are a teaspoon of sugar or honey on porridge, a thin layer of ordinary (not diabetic) jam or honey on a slice of bread or toast (preferably wholegrain!), or the sugar that is found in savoury foods such as tomato sauce and baked beans.

The trick is to combine your small amount of sugar with a low GI carbohydrate at the same meal. But sometimes, if you want a sweet taste, such as in a soft drink or on your breakfast cereal or when making a cake, that small amount of sugar is not sufficient. This is when an artificial sweetener may be useful.

There are two main types of artificial sweeteners:

a. Non-Nutritive: these contain no calories and therefore have no effect on blood glucose levels:
- Splenda
- Saccharin
- Aspartame
- Cyclamate

b. Nutritive: these contain calories and have an effect on blood glucose levels:
- Mannitol
- Sorbitol
- Xylitol
- Maltodextrin

They are all in widespread use and are safe, but cyclamate and saccharin should be avoided in pregnancy.

But of course carbs are not the whole story in a healthy diet. Another vitally important factor is the second major nutrient in our diets – fats. More about those later.

CAN YOU EAT A RAINBOW?

Before we leave carbs, let's take a closer look at the largest group of them – fruit and vegetables. Let me start by asking you: Can you eat a rainbow? If you think the answer is No, let me show you why you might want to rethink your answer. And why it's important to try to eat a rainbow.

20 years ago doctors began to realise that fruit and vegetables can help prevent cancers. This is because of the foods' chemicals, known as phytochemicals. In particu-

lar, fruits and vegetables with the most vibrant colours seemed to be the most beneficial. One of the best examples is beta carotene, which gives carrots their bright orange colour. With time doctors discovered what were the different pigments contained in each of the foods. They also realised that the health benefits went far beyond cancers – they included the prevention of many other diseases, especially coronary heart disease. So let's take a look at the health-giving properties of some fruit and vegetables. Let's look at a rainbow of colours.

Red/pink

These contain lycopenes which help prevent some cancers, especially of the prostate, and phenols.

- Beetroot
- Red cabbage
- Pink grapefruit
- Guavas
- Red peppers
- Radishes
- Tomatoes
- Water melon

Orange

Contain beta-carotene, perhaps the most well known anti-oxidant which protects body cells from a wide range of diseases and is good for eye and skin health.

- Apricots
- Carrots
- Mangoes
- Canteloupe melon
- Sweet potatoes
- Pumpkin, acorn and butternut squash

Orange/yellow

Contain beta-cryptoxanthin, another anti-oxidant that prevents cell damage.

- Yellow grapefruit
- Lemons
- Nectarines
- Oranges
- Papaya
- Peaches
- Pineapple
- Tangerines

Yellow/green

Contain lutein and xeazanthin which are good for the eyes by helping to prevent cataracts and macular degeneration – both common causes of blindness.

- Avocado
- Courgettes
- Cucumber
- Green beans
- Green and yellow peppers
- Honeydew melon
- Cos and Romaine lettuce
- Kiwi fruit
- Mustard & cress
- Spinach

Green

Contain sulphoraphane, isothiocyanides and indoles which help the liver get rid of toxins.

- Beans
- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- Globe artichokes
- Kale
- Peas
- Spinach
- Turnip
- Zucchini

Green/white

Contain alliums which help protect against cancer.

- Asparagus
- Canellini beans
- Celery
- Chives
- Endive
- Garlic
- Leeks
- Mushrooms
- Onions
- Shallots

Blue/purple/dark red
Contains anthocyanins which prevent blood clots, which helps reduce the risk of coronary heart disease.
• Red apple skins
• Aubergine
• Beetroot
• Blackberries, blackcurrants, blueberries/bilberries
• Cherries
• Red grapes, red grape juice, red wine
• Red peppers
• Plums
• Prunes
• Raspberries
• Strawberries

And then
Saving the best to the last, there are soybeans. These contain an abundance of goodies including coumarins, flavonoids, inositol, isoflavones, lignans, phenols, plant sterols, protease inhibitors, saponins, and Omega 3 and Omega 6 oils.

So, go on, eat a rainbow each day!

SMART FATS, UNSMART FATS

All fats are bad. Right? Of course, that's wrong. As with carbs it's a question of quantity and quality – how much and what kind.

We need some dietary fat for our health. Fats supply essential fatty acids and are important for making available to our bodies the fat-soluble vitamins A, D, E, and K.

There are two main kinds of fats and oils, and all fatty foods contain them in different proportions. They are:

1. Saturated fats. These are solid at room temperature, and they clog up arteries. Examples of foods containing large quantities of them are fatty meats, poultry skin, and full fat airy products such as whole milk and cream. Palm and coconut oils are also high in saturates.

2. Unsaturated fats. These are oils, which means they are liquid at room temperature. Some oils contain mostly polyunsaturates, which are liquid even at refrigerator temperatures. Examples are corn oil, safflower oil, soybean oil, and sunflower oil. One

particularly beneficial type of polyunsaturates are omega-3 fatty acids, found in oily fish (such as fresh or smoked salmon, mackerel, sardines, herring and white albacore tuna), flaxseed and omega-3 fortified eggs. We'll look at omega-3s in more detail in the next chapter. Other unsaturated oils are monounsaturates. These are thick but not completely hard at refrigerator temperatures. They are the healthiest, and are found in nuts (especially almonds, cashews, pistachios, peanuts and peanut butter), olives and olive oil, canola (canola) oil and avocados.

The main concern is the effect of the different kinds of fats and oils on our blood fats and on our hearts. So, a short diversion next about blood fats.

There are two important ones – cholesterol and triglycerides. As regards cholesterol, there are two main types - LDL (which stands for low density lipoprotein), which is the naughty stuff that clogs up our arteries, and HDL (high density lipoprotein), which is the good type that protects our arteries. Levels of both are affected by diet. HDL is also affected by exercise (which increases it) and smoking (which lowers it).

Triglycerides are also important for lots of health reasons, but especially for our hearts. Too many of them and our risk of coronary heart disease rises.

Saturated fats increase LDL (bad cholesterol) and are bad for the heart. Polyunsaturates lower LDL and, although they unfortunately also lower HDL (good cholesterol), they are good for the heart. Monounsaturates are the best. They both lower LDL and raise HDL, and are very healthy for the heart.

A word about most margarines: these are vegetable oils artificially saturated (hydrogenated) to make them semi-solid. As a result they contain fats called trans fatty acids which are probably more harmful even than saturated fats because they increase LDL and lower HDL.

So you can see that the best fats to include in your diet, whether or not you are trying to lose weight, are those with lots of monounsaturates and polyunsaturates (especially omega-3 oils).

What are the best ways to achieve this?

- Avoid fatty meats and poultry skin.
- Eat oily fish. If you don't like fish consider taking omega-3 fish oil supplements.
- Drink skimmed, or at the very least semi-skimmed, milk and eat low fat cheeses such as cottage cheese, feta and ricotta.
- Choose light margarine or margarine that is labelled polyunsaturated and trans-free.

Use light margarine instead of butter or ordinary margarine.
- Use low fat or fat-free mayonnaise and salad dressings.
- Buy foods that are labelled low fat.
- Cook with liquid oils rather than solid fats. Especially good are olive and canola (canola) oils. Alternatives are corn oil, peanut and sesame oils.
- Bake or steam rather than sauté or fry.
- Eat less commercially prepared baked goods, snack foods, and processed foods, including fast foods.
- Try to avoid foods containing hydrogenated or partially hydrogenated oils. Or at least choose food products that list the hydrogenated oils near the end of the ingredient list (which means the amount present is likely to be very small).

A healthy diet as described in this book encourages good fats (monounsaturates and polyunsaturates) whilst discouraging bad fats (saturated fats and trans fats). The good fats help sugar and insulin metabolism, which helps both diabetes control and weight control, while the bad fats damage sugar and insulin metabolism, which makes poor diabetes control and weight gain much more likely.

Our diets need a balance of proteins, fats and carbohydrates. Earlier we saw how to choose the good carbs. In this section we have seen how to choose the good fats. So don't dismiss carbs and fats. Instead choose smart carbs and smart fats.

OMEGA-3 OILS

Time for a science lesson! Essential fatty acids, or EFAs, are so called because our bodies cannot produce them. We need them in our diet. They are important for several reasons, one being that they are used in the manufacture of substances called prostaglandins which are essential for hundreds of bodily functions. There are two types of EFA:

1. Omega-6 oils, such as linoleic acid, which we get from seed oils such as maize oil and sunflower
2. Omega-3 oils, which we get from green leafy vegetables e.g. broccoli, spinach, lettuce; and fish oils such as those we get from mackerel, herring and salmon.

Incidentally, omega-3 oils are particularly important in early life, so that pregnant mums should make sure they have a good intake of these.

A diet rich in animal (or saturated) fats, or too much alcohol, or conditions such as diabetes and virus infections, or getting older, may interfere with the conversion of these oils to prostaglandins. This is why EFA supplements are proving so popular.

EFAs are extremely important for our general health and, for example, for the prevention of heart disease. A good intake of EFAs will ensure a good level of prostaglandins which will maximise the efficiency of the body's various metabolic processes.

Omega-3s are the most interesting and most important, so let's take a closer look at them. There are three types:

- Alpha-Linolenic acid - which comes from green leafy vegetables, oils, nuts and soybeans
- Docosahexanoic acid (DHA) - which comes from oily fish, especially mackerel, sardines, salmon and albacore tuna
- Eicosapentanoic acid (EPA) – which also comes from oily fish
- DHA and EPA, the omega-3s from fish, are the most powerful. They are especially important in the prevention and treatment of coronary heart disease, hypertension (high blood pressure), cancer and rheumatoid arthritis.

How do omega-3s help in heart disease?

There are several ways they do this:

- They increase levels of HDL (high density lipoprotein) cholesterol. This is the good cholesterol which protects us from coronary heart disease. Remember, there are essentially two different kinds of cholesterol – HDL and LDL. LDL (low density lipoprotein) cholesterol is the bad guy that clogs up our arteries. So we want as little LDL as possible and as much HDL as we can. Three factors which affect cholesterol levels are (1) smoking, (2) lack of exercise, and (3) a poor diet. All three push up LDL and lower HDL – bad news. So anything that lowers LDL and raises HDL is good. Cutting back on animal fats such as fatty meats and dairy products helps as does having a lot of omega-3s.
- Omega-3s, especially the fish ones, push up HDL.
- They lower blood levels of triglycerides – another fat that is a risk factor for coronary heart disease.
- They reduce our risk of developing abnormal heart rhythms which can cause sudden death.
- They help reduce high blood pressure, but only if taken in high quantities through supplements.
- They reduce blood clotting which reduces the risk clotting inside coronary arteries. This clotting is one important factor in causing heart attacks.

Some myths about fats

There is a lot of confusion about fatty foods – what's good and what's bad.
Let's look at a few of them.

Vegetable oils

Apopular myth is that all vegetable oils are good for you. But coconut oil and palm oil are both high in saturated fats, which are the fats that cause high cholesterol. So avoid these and opt instead for oils that are low in saturated fats. Good choices are nut oils, especially peanut, which contain mainly monounsaturated fats which are best for the heart.

Experiment with different oils. For example:

- As an all-purpose cooking and baking oil use canola (canola) oil. Low in saturated fats, rich in healthy monounsaturated and omega-3 fats, it has a very bland taste. As an alternative use soybean oil which is also bland but contains less omega-3 fat.
- Try a nutty oil, such as walnut oil, for a salad dressing or baking. Contains a lot of omega-3 fat. Can go rancid quickly, so keep refrigerated after opening.
- Use oil for Mediterranean food and salads. Full of healthy monounsaturates it adds a delicious flavour to foods, especially if you use extra-virgin varieties.
- For frying and roasting use oils that have little flavour and high smoking points, such as sunflower oil.
- For stir fries try oils with a distinctive flavour, such as peanut or sesame oil.
- Nonstick vegetable oil cooking sprays are a good way of providing an almost negligible amount of fat when you need to prevent food from sticking to a pan.

Cheese

When I worked as a physician in a well known wellness clinic in London I often found myself advising patients about their cholesterol levels. The common reply was: “But I don’t eat anything to cause a high cholesterol.” A little digging found that, yes, their diet was very healthy except for one thing – they nearly all ate a lot of cheese. So what can you do if cheese is high on your list of life’s priorities? Here are some tips:

- Try lower fat cheeses such as cottage cheese, ricotta and feta
- Eat fuller fat cheeses in smaller amounts.
- Make your fuller fat soft cheeses go a long way by eating them with low fat crackers or fruit or celery sticks.
- Grating hard cheeses will make them go further.
- Go for a small amount of a strong-flavoured cheese, such as a Stilton, rather than eating larger amounts of milder-tasting cheeses.

Nuts

Nuts, peanuts, and peanut butter are mostly fat. So should we avoid them?
As we have seen in this chapter there are bad fats but there are also good fats. In 2002

a very interesting piece of research on nuts was published in the prestigious the Journal of the American Medical Association. Entitled Nut and peanut butter consumption and risk of type 2 diabetes in women it showed that women who ate at least five ounces of peanuts and peanut butter a week reduced their risk of developing type 2 diabetes by 21 percent compared to those who rarely or never ate them. The research also found that women who often ate tree nuts, such almonds, walnuts, cashews, pecans and pistachios, reduced their risk for type 2 diabetes by 27 percent compared to women who rarely ate them.

But nuts make you put on weight, don't they? Well, do they? In a major piece of research on over 80,000 American nurses over 16 years scientists found that women who ate the most nuts tended to weigh a bit less and have a lower body mass index than the others.

Nuts and peanuts (which, incidentally are not true nuts but legumes) are rich in the healthy kinds of fats – monounsaturated and polyunsaturated - and both are good sources of antioxidants, protein, magnesium and fibre. They also have a low GI and have good effects on cholesterol and triglyceride levels.

Research shows that the more nuts we eat the less our risk of coronary heart disease. If you want to avoid heart disease and diabetes eat more nuts, peanuts and peanut butter instead of fatty meats and refined grains. But, of course, everything in moderation! Here is a list of the saturated fat and total fat content of some popular nuts:

Nuts (1 oz)	**Saturated Fat (g)**	**Total Fat (g)**
Almonds, dry roasted	1.4g	14.6g
Brazil nuts	4.6g	19g
Cashew nuts	2.6g	13.2g
Chestnuts trace	trace	0.3g
Coconut, dried	16g	18.3g
Hazelnuts	1.4g	18.8g
Macadamia nuts	3.1g	21g
Mixed nuts, oil-roasted	2.5g	16g
Pecans	1.5g	18.3g
Peanuts, dry roasted	2g	14g
Peanuts, oil-roasted	2.5g	16g
Peanuts, boiled (shelled)	1g	6g
Peanuts, Spanish, raw	2g	14g
Peanuts, chocolate coated (10)	6g	13g
Pine nuts	2.2g	14.3g
Pistachios	1.7g	13.7g
Walnuts	1g	16g

EATING OUT

There always comes the day everyone who is diet-conscious dreads. I don't mean Christmas or holidays which, yes, may present a challenge. What I have in mind is the day you are invited to go out for a meal in a restaurant. At home you can control what you cook and eat. But in a restaurant? What do you do? Do you ask waiter, "Is this a GI friendly place?" "Excuse me," comes the reply, "but what is GI?" Your heart sinks. You look at the door and think, should I go now before we've even started? Or do you say to yourself, Blow the diet, blow the diabetes, I'll gorge myself for once? The good news is, you don't have to do either. It is quite feasible to follow a low GI diet wherever you are. Just remember a few basic principles:

- You can eat any kind of meat so long as it is lean.
- You can any grilled fish, seafood or poultry.
- Best cooking methods are grilled, steamed, broiled, roasted or stir-fried.
- Ask for sauces to be served one side so that you control how much you eat.
- If your choice is an omelette or scrambled eggs ask for more egg white and less yolk.
- You can eat most fruit and vegetables but avoid potatoes other than small new ones. The odd one or two potatoes once in a while when you eat out will do you no harm. But try to avoid chips, baked and mashed potatoes.
- Eat salads liberally. Use a light dressing or a little olive oil. Balsamic vinegar is one of my favourites.
- Don't stuff yourself on bread. In fact, avoid it altogether unless it is wholegrain. Again, as with potatoes, the odd slice even of white bread once in a while will do you no harm. Go very easy on the butter – better to avoid it altogether if you can.
- Don't feel that you necessarily have to have a conventional starter, main and dessert. In most restaurants you can ask for two starters followed by, say, a salad. The portions are likely to be smaller and so less calorific.
- If you really can't resist a rich dessert how about sharing one between two?
- Don't be shy about leaving food on your plate. To the inevitable "Didn't you like it?" from the waiter you can smile sweetly and explain that you are on a diet and ask the waiter to pass your compliments on to the chef.
- Try not to arrive at the restaurant starving hungry. If you do you are bound to overeat. Have a light healthy low GI snack before you go, such as a portion of fruit. My favourite is a couple of tablespoons of rolled oats.

Now what to do in various types of ethnic restaurants.

Chinese

It comes as a surprise to many that Chinese food presents few challenges because it has plenty of vegetables and is low in fat. If you stick to lean meat, seafood and veg-

etables, all of which are available in a wide range, and prefer stir-fried to deep-fried food, you won't go far wrong.

Choose:
- clear soups e.g. wan tun, hot and sour
- stir-fries with lean meat, poultry, seafood, vegetables and tofu are good.
- steamed fish
- vegetables
- noodles with chicken, seafood or vegetable lo mein (in which the noodles are stir-fried along with the other ingredients)
- chop suey (but avoid fried noodles)
- chow mein (again, no fried noodles)
- sauces: black bean, mustard, oyster, Szechuan

Avoid:
- white rice other than one or two tablespoons. Ask for long grain rice although your chances of getting this in a Chinese restaurant are slim, in which case opt for oriental noodles (egg, rice, or mung bean).

Ask for:
- sauces to be served one side so that you control how much you eat.

Italian

Choose:
- pasta, but ask for it to be al dente and eat a small portion as a starter or a side order. Avoid cheese or cream sauces: instead go for tomato-based or seafood-based sauces
- vegetable soup (minestrone) or bean-based soup (pasta fagioli)
- lean beef
- veal (but no breadcrumbs)
- grilled chicken
- seafood

Pizzas are fine so long as they are thin crust with a minimum of cheese toppings (go for vegetable toppings instead). Avoid bread unless it is semolina bread. Cappuccino is okay but ask for it to be made with skimmed or semi-skimmed milk

French

This can be quite a challenge for the low GI diet because of all the butter, cream and cheese, not to mention French bread which has just about the highest GI of all breads. But a lot of French restaurants now offer more Mediterranean style low GI choices such:

consommé
• chicken and fish Provencal (with tomato sauce)
• chicken and meat stews (with tomato or wine sauces)
• bouillabaisse (seafood stew)
• ratatouille (vegetable stew)
• steamed or poached chicken, seafood and vegetables

Indian
As with Chinese cuisine it surprises many that Indian cuisine is user-friendly to the low GI dieter. Legumes, chicken, fish, vegetables, and yoghurt are all good low GI foods. Basmati rice is also good for the diet. The downside with Indian food is that often a lot of fat is used for frying and many sauces have a heavy butter base, so you need to ask for as little fat and butter to be used as possible.

Good choices are:
• lentil or bean soups
• biryanas (made with basmati rice)
• curries made with chicken, seafood or vegetables (but avoid those made with coconut)
• chicken or lamb kebabs
• Tandoori chicken or fish (where the main ingredient is marinated in yoghurt and then baked)
• chicken or shrimp Vindaloo

Japanese
The Japanese have long life expectancies, and one factor in this is their food which is very healthy. On a low GI diet you can eat practically anything you like in a Japanese restaurant except for sticky white rice and tinned lychees.

Thai
As with Japanese cuisine you can eat practically anything you like in a Thai restaurant. The spicy recipes usually contain small amounts of meat, seafood, or tofu with vegetables.

Mexican
Mexican cuisine can be challenging for the low GI dieter. The food is mainly high in starch and fat and low in fruit and vegetables, leading to an overload of both calories and carbs. Go for grilled chicken and seafood, salads and beans. Also fine are fajitas, burritos, tacos and quesadillas made with wholewheat tortillas. Most Mexican restaurants in the United States serve high-starch, high-fat foods (including chips), that are denser in calories than they are in nutrients. If possible, stick with grilled seafood and

chicken dishes, black beans, and entrees such as fajitas. Limit the cheese and sour cream or ask if low fat varieties are available.

Take-aways
What can you do about these? The short answer is, avoid them. Their fat content is generally high and the bread and rolls used, as in Hamburgers, have very high GIs.

STORE CUPBOARD AND COOKING

What should you keep in your store cupboard?

Dairy products
These are good for the low GI diet because the sugar they contain, which is lactose, is absorbed quite slowly into the blood stream. Especially good for diabetes are the low fat versions. So find a place for:
- Milk: skimmed or semi-skimmed. Alternatively try soya milk
- Yoghurt: plain or flavoured low fat or non fat
- Cheese: low or non fat versions (less than 5g fat per ounce (28g)) of cottage cheese, ricotta cheese, feta cheese, cream cheese, mozzarella cheese, Swiss cheeses, Cheddar cheese. Parmesan cheese for sprinkling on other foods.
- Low fat ice creams ands sorbets
- Spreads: light butter or light margarine. Avoid hydrogenated kinds.

Oils, mayonnaise and salad dressing
- Oils: canola (canola), olive oil, soybean oil, walnut oil, non-stick vegetable oil cooking spray
- Mayonnaise: light or non fat
- Salad dressings: low fat or non fat

Eggs
- Eggs are not the villains they used to be thought of. They contain no saturated fat and raise the good cholesterol more than the bad. And eggs also contain nutrients that may help lower the risk for heart disease, including protein, vitamins B12, D and E, riboflavin, and folate. So eggs are permissible. Up to seven egg yolks a week is fine. But if you have diabetes you should probably limit yourself to no more than two or three eggs a week, as the Nurses' Health Study found that for diabetics an egg a day might increase the risk for heart disease. Also, if you have difficulty controlling your blood cholesterol you need to be careful about eating egg yolks and you should choose foods made with egg whites instead. For everyone, egg whites are unlimited. If you can find them, choose omega-3 enriched eggs.

Meat, poultry and fish

- Lean cuts of all meats. Trim off visible fat.
- Back bacon
- Any fresh or frozen fish or shellfish, but try especially to include oily fish such as salmon.
- Any tinned fish in water or brine, e.g. tuna. Avoid fish tinned in oil.

Breads

Avoid breads, bagels, burger buns and muffins made from finely ground flour. Best to eat are:

- 100 per cent stone-ground whole wheat bread
- Pumpernickel
- Multigrain breads
- Rye bread
- Pita bread
- Wholewheat flour tortillas
- Sourdough bread, which has a moderately low GI because of its acidity

Pasta & noodles

- All pastas are fine providing you cook them al dente and you eat small portions, e.g. 50g, only.
- Noodles too are fine.

Rice and other grains

Avoid sticky white rice. Instead choose:

- Long grain rice, brown rice, long grain brown rice, Basmati rice, parboiled or Uncle Ben's converted rice (rice that has been steamed prior to milling)
- Buckwheat – used, for example, in kasha
- Barley – used in casseroles, pilaffs and soups
- Bulgur wheat (cracked wheat) – used in many dishes including casseroles and pilaffs
- Couscous
- Polenta (cornmeal)

Legumes

- e.g. black beans, kidney beans, chickpeas (e.g. in hummus), soy beans

Flours

- Whole grain flours
- Flour alternatives e.g. wheat germ, wheat bran, oat bran, rolled oats, flaxseeds Breakfast cereals

• All Bran, bran buds, muesli, nutri-grain, shredded wheat, Special K, porridge made with rolled grains (not instant porridge)

Canned foods
• Tuna in brine
• Salmon or sardines in water
• Corn
• Fruits

Condiments & herbs
• Condiments and herbs are all OK but use tomato ketchup in moderation

Fruit & vegetables
• Most fruit and vegetables are OK except potatoes (other than small new and sweet potatoes), parsnips, carrots (other than small portions) and watermelon. Eat at least 5 portions a day.
• Dried apricots are fine.

Nuts & seeds
• Almonds, pecans, pine nuts, walnuts
• Peanuts and peanut butter (in small amounts – remember it is quite calorific)
• Flax seeds, sesame seeds, sunflower seeds

COOKING TIPS
• Pastas: cook al dente. Include vegetables in pasta recipes
• Breaded coatings: use Special K rather than breadcrumbs
• Meat: use lean cuts. Trim off visible fat. Cooking methods: grill, stir fry, oven fry, bake.
• Poultry: remove skin. Cooking methods: grill, stir fry, oven fry, bake.
• Omelettes: use more egg whites, lean meats, lower fat cheeses and lots of vegetables
• Casseroles: use basmati, long-grain, converted or wild rice or bulgur wheat instead of white rice. Use lower fat cheeses or sour cream. Include plenty of legumes and vegetables. Use as little oil, butter or margarine as possible.
• Soups: use basmati, long-grain, converted or wild rice or barley instead of white rice. Include plenty of legumes, vegetables and pasta. Use skimmed or semi-skimmed rather than whole milk. Thicken with pureed vegetables rather than cream
• Burgers, meatballs: use extra lean meat. Use cooked lentils, legumes, rolled oats, oat bran or bulgur wheat instead of white rice or bread crumbs. Include lots of chopped vegetables
• Stuffings: use low GI breads and lots of chopped vegetables

- Sauces: use skimmed or semi-skimmed rather than whole milk. Use as little butter or margarine as possible
- Marinades: use more fruit juices with less sugar for sweetness
- Salads: use low fat mayonnaise and dressings or sour cream. Use lean meats and lower fat cheeses
- Pancakes & Yorkshire pudding batter: use oats, oat bran, wheat bran, wheat germ or flax meal instead of some of the flour. Serve pancakes with low sugar fruit sauce or apple sauce or fruit (fresh or tinned)
- Custards and puddings: use skimmed or semi skimmed rather than whole milk. Use vanilla, cinnamon or nutmeg instead of some or all of the sugar
- Sandwiches: use low GI breads and lots of vegetables

Finally, the "magic food"

There is one food which is becoming very popular today but which has been around for centuries. What is it? Soy.

Is soy just a fad, or is there something more to it?

Soy is what we call soybeans or foods containing part of the soybean. Soy foods belong to the legume/dry bean family. Soy is cholesterol free and low in saturated fat. It is high in protein and fibre and is a good source of calcium, iron, magnesium, and several B vitamins. It also contains linolenic acid, a polyunsaturated omega-3 fatty acid which helps prevent coronary heart disease. The American FDA has stated that diets containing 25 grams of soy protein and low saturated fat each day can decrease cholesterol. This in turn helps prevent coronary heart disease. This beneficial effect of soy is due to the presence of genistein, a natural oestrogenic compound which significantly lowers levels of LDL cholesterol (the bad cholesterol) and triglycerides while increasing levels of HDL cholesterol (the good cholesterol). Genistein occurs naturally in soy and in no other food.

Soy contains antioxidants (compounds that prevent body cell damage caused by unstable oxygen molecules called "free radicals"). Cell damage leads on to cancer formation as well as premature aging. Women who eat soy are much less likely to develop breast cancer than those who don't. Similarly there is a much lower incidence of prostate cancer amongst men who eat soy products such as tofu. The genistein found in soy reduces the severity of menopausal hot flushes.

Soy is high in fibre and for this may reason may help prevent cancer of the stomach and bowel. Soy's protein and fibre help regulate blood glucose levels. This means that soy is likely to be of benefit in obesity and diabetes. It lowers blood lipids, such as cholesterol, and reduces insulin and insulin resistance. Soy's protein enhances the

body's ability to retain and absorb calcium in the bones. This improves bone density which may help prevent thinning of bones and osteoporosis.

Most important of all for this book's diet, soybeans have the lowest GI values of any food. Add them to your other food and you will reduce the glycaemic index of your meal.

What are the ways to incorporate soy in your diet?

Apart from whole soybeans foods containing soybeans include soy milk, soy yoghurt, soy nut butter, soy flour, tofu, soy nuts and meat analogs (for example, burgers and nuggets that look and taste like meat, poultry, or fish).

Here are some ways to incorporate soy in your diet:

- In cooking, replace cow's milk with soy milk.
- Blended soy milk with fruit juice or fruit for a healthy nutritious drink.
- Use soy milk instead of cow's milk on your breakfast cereal or use it instead of cow's milk or water to make porridge. In fact, you can use whenever you like as a cow's milk substitute – for example, in cream sauces, soups, custards, shakes, and batter and pancake or waffle mixes.
- Use soy flour to thicken gravies and cream sauces.
- Canned soybeans are available as regular or black soybeans and are good substitutes with lots of flavour for other beans in any recipe.
- Use textured soy protein (TSP) or textured vegetable protein (TVP), made from soy flour, as a substitute for meat in stews and casseroles. When mixed with water, TSP has a texture similar to ground beef and can be used partially to replace it in spaghetti sauce, chili or meatloaf.
- Soy nuts have less fat than ordinary nuts so provide a useful low fat snack and they work well in salads. If you can find soy nut butter this is an excellent alternative to peanut butter.
- If you can find it use okara, the soybean pulp by-product of soy milk, as a thickener.
- Add tofu, a very mild flavoured soy food with the texture of ricotta cheese, to soups, casseroles and stir-fries to act as a flavor sponge.

Tofu is a very interesting soy product. It is made from soymilk to which a coagulating agent is added to separate the liquid into curds and whey - similar to making cheese. The curds are then pressed into a solid block, stored in water and either refrigerated or vacuum-packed. It is available in a variety of textures ranging from extra firm to firm to soft to silken. Extra firm tofu keeps its shape well and is best for slicing, dicing and frying, and broiling. It can be frozen then thawed, which gives it a chewy texture similar to meat, and is ideal stir-fried with vegetables or added to

casseroles, chili, lasagna, or used as a spaghetti sauce. If you cut it into cubes you can use it as a kebab on a barbecue.

Firm tofu, being less dense, is useful for dressings, desserts and as a substitute for soft cheeses such as cream, cottage or ricotta.

Soft tofu is even less dense and is good for pureed dishes and for blending into dressings and sauces or with fruit to make delicious smoothies. It is useful as an alternative to sour cream or yoghurt. If you'd prefer to have less eggs you can reduce the number used in a recipe by substituting tofu for some of the eggs.

Silken tofu is the least dense and is a creamy, custard-like product that is superb in salad dressings, mayonnaise, dips, creamy sauces, cheesecakes and cream pies.

I think it is hard to ignore all the scientific evidence for the benefits of soy, which is why I would encourage you to find ways of incorporating it in your diet.

The healthy diet in a nutshell

Now you have sufficient information to understand the principles of the diet. In a nutshell these are:

Eat:

- lean meats
- plenty of fish and seafood
- low fat dairy products
- low GI wholegrain breads and cereal
- low GI rice
- small portions of pasta cooked al dente
- plenty of low GI fruit and vegetables
- plenty of beans, peas and lentils
- monounsaturated and omega-3-rich oils eg olive and canola (canola) oils
- more soya products

HOME BLOOD GLUCOSE MONITORING AND HAEMOGLOBIN A1C TESTING

Increasingly, people with diabetes are now monitoring their blood glucose levels at home. This is especially so for diabetics who need insulin. Target levels are 4 to 10 mmol/litre (72 mg/dl and 180 mg/dl) most of the time. The aim is to achieve an HbA1c (glycosylated haemoglobin) concentration of 6.5–7.5% or less – ideally between 4 and 6%).

Blood glucose monitoring can detect hypoglycaemia (low blood glucose level) as well as hyperglycaemia (high blood glucose). If you are going to use blood glucose monitoring it is important that your doctor or diabetic nurse trains you so that you can take appropriate action on the results obtained. Ideally it is best to observe the 'peaks' and 'troughs' of blood glucose levels over a 24 hour period and make adjustments to your insulin no more than once or twice weekly. The only time that daily alterations to insulin should be made is during illness.

The best way to carry out blood glucose monitoring is by using a meter which gives an accurate result.

How important is it to monitor blood glucose levels at home?
There is little question that if you need insulin for your diabetes you should regularly monitor your blood glucose. This is for two reasons: first, to guide your insulin doses; and second, to detect and prevent hypoglycaemia. But doctors are divided about whether or not diabetics who control their condition with diet alone or diet and tablets need to monitor their blood glucose levels at home. Some doctors suggest that people should monitor in special circumstances only, such as during an illness (such as an infection), when diabetic tablet treatment is changed, if steroids (by tablets or injection) are prescribed for some other condition, during pregnancy, or if hyperglycaemia (very high blood glucose levels) occurs after eating. Many doctors feel that for people with diabetes controlled with diet and tablets the most cost-effective way of monitoring the condition is by measuring the HbA1c every 3 to 4 months. Common sense dictates that in some situations home blood glucose monitoring is desirable, such as when systemic steroids are prescribed or during pregnancy. The only way that you can answer the question about whether or not to carry out home monitoring of your blood glucose is to discuss this with your doctor or diabetic nurse.

Should I test my blood glucose before or after meals?
Generally the best times to test are before breakfast, before lunch, before dinner, and before any bedtime snack. From time to time it may also be helpful to test 2 to 4 hours after a meal to see the effect of food on your blood glucose levels.

Be guided by your doctor or diabetic nurse about when and how often to test.

HYPERGLYCAEMIA (HIGH BLOOD GLUCOSE)

Hyperglycaemia is when your blood glucose level is over 10 mmol/l)180 mg/dl) two hours after eating or above 7.8 mmol/l (140 mg/dl) before eating. But this is a general target, and your doctor may advise you on a slightly different target.

What are the symptoms of hyperglycaemia? These include:

- increased thirst
- increased passing of urine
- dry mouth
- dry skin
- tiredness or fatigue
- more frequent infections
- cuts and sores that heal more slowly
- blurred vision
- unexplained weight loss

What causes hyperglycaemia?

- too much food (e.g. larger portion sizes, too many high-fat foods)
- not enough exercise
- too low a dose of diabetic tablets or insulin
- 'spoiled' insulin (e.g. perhaps your insulin was exposed to very cold or very hot temperatures, perhaps it is pat its expiry date, perhaps it looks different)
- infection, injury, another illness, or surgery
- high blood glucose reading due to a faulty or dirty blood glucose meter, expired strips, strips exposed to very cold or very hot temperatures or kept in an airtight dry container, or your meter not calibrated to the strips you are currently using

Does hyperglycaemia matter? Yes. In the long term it increases the risk of complications such as heart attacks, strokes, kidney disease and blindness.How long can you let hyperglycaemia continue before adjusting your treatment? In general, if your blood glucose stays over 10 mmol/l (180 mg/dl) for 3 consecutive days it is time to consider a review of your treatment with your doctor or diabetic nurse.

What should you do if you have hyperglycaemia?

- drink plenty of water – at least 8 glasses a day
- try to identify the cause of your hyperglycaemia and take the appropriate action to correct it
- if your blood glucose is 13.9 mmol/l (250 mg/dl) or higher and you are on insulin, check your urine for ketones. If ketones are present follow your sick day rules or call your doctor or diabetic nurse
- check your blood glucose levels before meals on 3 consecutive days. If the levels are higher than your target level see your doctor or diabetic nurse to review your treatment
- if any doubt about any of the above call your doctor or diabetic nurse

COMPLEMENTARY THERAPIES

Many diabetics look to complementary therapies. These include relaxation therapy, selfhypnosis, visualisation, meditation, massage and music therapy. Let us have a look at some of them.

Acupuncture can be helpful for people with chronic pain caused by diabetic nerve damage. Relaxation techniques can be helpful in different ways. Guided imagery is a technique in which an individual thinks of peaceful images that bring about a feeling of control over the diabetes. Biofeedback offers relaxation and techniques to reduce stress which can be helpful to enable people to learn to cope with their body's response to pain.

Various minerals are sometime promoted to diabetics. The most well known, perhaps, is chromium which is said to help improve the action of insulin. However doc tors are divided about the true value of this mineral. Magnesium deficiency may interfere with the production of insulin by the pancreas leading to insulin resistance. Vanadium is said to produce a small increase in insulin sensitivity and therefore bring about a decrease in insulin requirements. Unfortunately, this mineral is toxic to the liver and is therefore best avoided.

FOOT CARE - LOOKING AFTER YOUR FEET

Diabetes can damage the blood vessels and nerves to the feet. This can cause a slowing down of the healing process and a reduction in the sensation to pressure, pain and temperature and pressure. It can also lead to complications such as foot ulcers.

You can reduce the risk of developing these problems by careful attention to foot care as well as ensuring good blood glucose and weight control and avoiding smoking. Your doctor or diabetic nurse will advise you if you need to see a chiropodist or podiatrist.

Inspect your feet every day

Inspect carefully between your toes and around your heels, looking for cuts in particular. If you find it difficult to bend ask a family member or friend to help you. A mirror on the ground may be helpful too. If you notice any changes tell your doctor, nurse or chiropodist.

Inspect your footwear regularly

Check that your shoes give you good support and that the soles are thick enough to protect your feet. Make sure that there are no rough seams or small objects caught in your shoes.

Footwear
Wear only shoes that give good support – so wear slippers as little as possible – and make sure your shoes are well fitting with plenty of room for your toes. Preferably wear lace-ups with soft uppers, and check that the seams do not rub your toes, otherwise corns may develop. If you have no sensation in your feet avoid sandals which provide no protection. Before putting on shoes always check that nothing has fallen inside them.

Pay attention to hygiene
Wash your feet each day with warm water and mild soap. Afterwards dry your feet thoroughly especially in between your toes, and lightly dust with talcum powder. Change your socks or stockings or tights every day.

Look after the skin of your feet
After washing your feet apply moisturising cream to them to keep the skin supple and to avoid cracking (which dry skin is prone to). Never use remedies for corns or hard skin. And never apply cream between your toes. In fact it is most important to try to avoid moisture between the toes as this may lead to 'Athlete's Foot'. If this occurs your doctor or pharmacist can advise you on a suitable treatment. Avoid sunburn to your feet by keeping covered or by using a sun screen with a high protection factor.

Dealing with cuts
Bathe any cut or laceration in warm water and a dilute antiseptic solution, then cover with a dry sterile dressing. If there is any sign of infection, e.g. throbbing, swelling, redness or pus, see your doctor or nurse or chiropodist. And never be tempted to burst a blister.

Look after your toenails
Cut your toenails only if you can easily see what you are doing and you can easily reach your feet. Cut the nails straight across and do not cut them too short. File any rough edges. If you have difficult looking after your toenails see a chiropodist.

Preventing foot ulcers
If you have numbness and loss of pain sensation in your feet – a common consequence of diabetes – you may not realise that your foot has an injury or an ulcer. Also diabetes can change your foot shape and, as a result, you are more likely to develop blisters or ulcers. The most important step in preventing foot ulcers is good blood glucose control. If you are unlucky enough to develop a foot ulcer or an injury to your foot or an ingrowing toenail you should see your doctor or diabetic nurse as soon as possible.

Some 'do's' and 'don't's'.

Do:

- When having a bath always add cold water first, then hot water.
- Check the water temperature with your elbow before putting your feet in the water.
- Always remove hot water bottles and switch off electric blankets before getting into bed
- Have your feet checked regularly

Don't:

- Walk around barefoot. If you are on holiday and walking on a beach or in the sea wear plastic sandals
- Wear badly fitting shoes
- Use a razor or corn remedies on your feet
- Warm up your feet by putting them on a hot water or near a fire or heater

WHAT HAPPENS AT THE DIABETIC CLINIC

There are several procedures which are carried out at your regular visits to your doctor's office or surgery or at your local hospital.

Laboratory tests and investigations

- Blood glucose control: HbA1c blood test, which indicates how well controlled your diabetes has been over the previous 3 months, should be 7% or less - equivalent to keeping your blood glucose between 4 mmol/l (72 mg/dl) and 7 mmol/l (126 mg/dl) before meals. This test should be done between 2 and 4 times a year.
- Kidney function: good kidney function is confirmed by urine (absence of protein) and blood (normal creatinine level) tests. The urine may also be checked for microalbumin as high levels are associated with a greater risk of developing some complications of diabetes. It is also associated with an increased risk of high blood pressure which can be helped with tablets called ACE-inhibitors.
- Blood fats (lipids, cholesterol and triglycerides): total cholesterol should be 5.0 mmol/l (194 mg/dl) or less and fasting triglycerides should be 2.0 mmol/l (177 mg/dl) are accepted as national target ranges

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Physical examination: The following will be checked:

- Your weight.
- Your legs and feet to see that the skin, circulation and nerve supply are good.
- Your blood pressure. This should be 140/80 or less, preferably 130/80 or less.
- Your eyes to see that there are no early diabetic changes at the back of the eye Photographs may be taken to obtain a record of the appearance at the back of the eyes.
- Your injection sites if you are on insulin.

Lifestyle issues

The review should also provide enough time to discuss:

- Your treatment.
- Your diabetes control, including your home monitoring results.
- If you are having any hypos.
- Any problems you may be having.
- Your general wellbeing.
- How well you are coping with your diabetes at home, at work, during sporting activities, etc.
- Any issues arising from smoking, alcohol consumption, food choices, physical activity, stress, sexual problems.

YOUR RESPONSIBILITIES

Effective control of your diabetes is the result of good teamwork. The members of that time include your doctor, diabetic nurse, dietician and chiropodist. But the most important person is You. Because no matter how good the input from your healthcare professionals if you do not put into practice the advice and guidelines you are given your diabetes is much more likely to become out of control.

So what can, and should, you do?

- Learn as much as you can about diabetes. And understand that it is a serious condition. As we've seen earlier in this book, there is no such thing as 'mild' diabetes. There is diabetes in an early stage of its progression and diabetes in a later stage. But for everyone with the condition, diabetes is, and must be, a life changing condition. But that is not to say that it is a disabling condition. Far from it. As we have seen earlier, there are many successful people, including top sportsmen, who live full and fulfilling lives with their condition. So, always ask questions. Always press for more information. This will enable you to:
- Take control of your diabetes on a day-to-day basis. This means learning everything you possibly can about dietary, exercise and monitoring blood glucose levels.
- Examine your feet regularly or, if this is difficult for you, have someone else do this.
- Learn about sick day rules if you are on tablets, which we looked at earlier in this book.
- Make sure you know when and how to contact your diabetes care team in time of illness, especially diarrhoea and vomiting and infections.
- Keep your appointments at your diabetic or chiropody or dietician's clinic. If for any reason you are unable to attend inform your healthcare professional and reschedule your appointment.

SOME COMMON CARBOHYDRATE FOODS AND THEIR GI VALUES

This is the part you will find yourself referring to time and again. So it's important to bear several points in mind.

First, In the LOW GI column foods in CAPITALS have especially low GI values.

Second, some foods, although with low GI values, have amounts of fat which exceed the recommended guidelines.

Third, only carbohydrates have GI values. So meat, for example, which is made of protein and fat but contains no carbohydrate, has no GI value.

Fourth – and this is the most important – the GI value of a food is not the be all and all. Watermelon, for example, has a high GI. But combine it with several other fruits with low GI values and the overall GI value of such a fruit salad is low. The overall value of a combination of foods is called its glycaemic load or GL.

Another way to reduce the overall glycaemic load of a meal is to combine carbohydrates with non-carbohydrates. For example, spaghetti on its own or with a tomato-based sauce has a higher glycaemic load than spaghetti Bolognese. This is because the meat has no GI. In fact, it is very important to try to combine protein with carbohydrate as much as you can. Protein is slowly digested which both reduces the glycaemic load of the meal and also satisfies hunger more easily. This is one reason why high protein diets help weight loss – you actually feel less hungry.

Finally remember that the GI values in the next few pages are approximate. The GI value of a fruit, for example, will vary with its ripeness. The GI value of pasta will depend on how well cooked it is. So GI is not an exact science, but it is a good guide. If you use it sensibly it will help you both to control your weight and to eat a diet that is kind to your heart and your body's metabolism.

GI VALUES OF COMMON CARBOHYDRATE FOODS

	Low GI	Medium GI	High GI
BISCUITS	Oatmeal	Shortbread	Morning Coffee
BREADS	Pumpernickel Sourdough 100% stoneground whole wheat	Croissant (contains significant fat) Crumpet Pita bread, whole wheat Rye Whole wheat, not stoneground	Bagel Baguette Dark Rye Gluten free Melba toast White Wholemeal bread
CEREALS	ALL-BRAN Muesli, toasted Porridge (no instant) Special K	Mini Wheats Muesli, natural Nutri-Grain Porridge, instant	Bran Flakes Coco Pops Corn Flakes Grapenuts Rice Krispies Shredded Wheat Sultana Bran Weetabix
CONFECTIONERY	Chocolate (contains significant fat)	Mars bar (contains significant fat) Muesli bar (contains significant fat)	Jelly beans
CONVENIENCE FOODS	Fish fingers SAUSAGES (contains significant fat)		
CRACKERS	Custard	Ryvita	Crispbread Rice cakes Water crackers
DAIRY	Ice cream, low fat milk, whole, semi-skimmed or skimmed Soy milk Yoghurt, with sugar, with or without fruit YOGHURT, WITH SWEETENER, WITH OR WITHOUT FRUIT	Condensed milk, sweetened Ice cream, full fat	
FRUIT	Apple APRICOTS (DRIED) CHERRIES Fruit Cocktail GRAPEFRUIT	Apricots fresh / canned Apricot jam Banana Kiwi fruit Melon	Dates, dried Lychee Watermelon

GI VALUES OF COMMON CARBOHYDRATE FOODS

	Low GI	Medium GI	High GI
FRUIT cont...	Grapes Orange Orange Marmalade Peach, fresh Pear, fresh / canned Plum PRUNES Strawberries Strawberry jam	Mango Papaya Peach, canned Pineapple Raisins Sultanas	
FRUIT JUICES	Apple juice Grapefruit juice Orange juice Pineapple juice, unsweetened		
LEGUMES	Baked beans Butter beans CHICKPEAS Haricot beans KIDNEY BEANS LENTILS SOYA BEANS		Broad beans
RICE	Converted, Uncle Ben's Parboiled	Basmati, boiiled Brown Long grain, white	Instant Rice cakes Short grean, white Sticky
SNACKS	PEANUTS (contain significant fat)	Potato crisps (contain significant fat)	Popcorn
SUGARS	FRUCTOSE	Honey Sucrose (table sugar)	Glucose
VEGETABLES	Carrots Peas	Beetroot Small new potatoes	Parsnip Potatoes

Menus and Recipes

On the following pages I have included 14 Daily Menus and the recipes they involve. Once you fully understand the Low GI foods and combinations, you can of course devise your own menus and recipes.

Menus for Day 1 - Monday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)
- Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Stuffed peppers

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Lemon chicken
Fruit Pavlova or Slimmers' Meringue

Menus for Day 2 - Tuesday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Ham and low fat (e.g. ricotta) cheese sandwich, using wholegrain or sourdough bread
You may add salad ingredients if you wish

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Spicey haddock parcels
Peach Melba

Menus for Day 3 - Wednesday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:

- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Pasta and chicken salad

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Lamb curry
Apple Mousse

Menus for Day 4 - Thursday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Beef kebabs

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Chicken Rosemary
Orange sorbet

Menus for Day 5 - Friday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Tuna and pasta salad

Afternoon Snack
A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Veal in breadcrumbs
Apple and lemon compote

Menus for Day 6 - Saturday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Tuna salad
with mushroom marinade

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Chicken with Basmati rice
Raspberry sorbet

Menus for Day 7 - Sunday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Mushroom and onion bake

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Roast lamb with garlic
Chocolate soufflé

Menus for Day 8 - Monday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Lamb kebab

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Chicken casserole
with Basmati or wild rice

Menus for Day 9 - Tuesday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Carrot and onion soup
Red cabbage crunchy salad

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Cod with cucumber
Orange and rhubarb

Menus for Day 10 - Wednesday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Vegetable curry

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Chicken peppery pasta
Plum and pear compote

Menus for Day 11 - Thursday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Lentil soup
Celery, radish and green pepper salad

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Grilled sole with grapes
Apple and blackberry compote

Menus for Day 12 - Friday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
French onion soup
Red pepper and beanshoot salad

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Chicken curry
Lemon jelly with banana

Menus for Day 13 - Saturday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Chili bean and Frankfurter salad

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Haddock in parsley sauce
Hot fruit compote

Menus for Day 14 - Sunday

Breakfast

A glass of water
Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Choice of the following:
- An approved breakfast cereal – look up the Guidelines
- Low fat plain yoghurt
- Low fat fruit yoghurt
- Scrambled Egg on wholegrain toast
- Poached egg with lean-grilled ham, tomato and grilled mushrooms
- Two boiled eggs with wholegrain toast 'Soldiers'

Morning Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Lunch

A glass of water
Celery soup
Cucumber jelly

Afternoon Snack

A glass of water

Choice of:
- Vegetable sticks (e.g. carrots, celery, cauliflower)
- Celery stick with low fat cheese e.g. cottage, quark, ricotta or fetta.
- Celery stick or apple with 5 g (1 tspn) peanut butter
- Low fat sugar-free yoghurt
- Nuts (within the daily permitted quantity)

Tea or decaffeinated coffee with optional skimmed or soya milk and sweetener but no sugar

Dinner

A glass of water
Roast beef with wholemeal Yorkshire pudding
Crepes Suzette

(Yes, you read the above correctly! This menu is a little reward for you. But you will see that the dishes are prepared in a low GI way.)

RECIPES

1. Celery soup
- 1 head of celery
- 30 ml (2 tbspns) low fat natural yoghurt
- 15 ml (1 tbspn) olive oil
- 2 beef or chicken stock cubes
- 570 ml water

Wash the celery and chop into small pieces. Lightly fry the celery for 5 minutes in the oil in a saucepan. Dissolve the stock cubes in hot water. Pour over the celery and cook until tender (about 30 minutes). Liquidise, return to pan, and stir in the yoghurt. Season if necessary. Serves 2

2. Carrot and onion soup
- 2 onions
- 455 g carrots
- 1 clove garlic
- 850 ml beef stock
- 15 ml (1 tbspn) olive oil
- 30 ml (2 tbspns) low fat natural yoghurt
- pinch of salt
- freshly ground black pepper

Peel and thinly slice the carrots. Skin and chop the onion. Skin and crush the garlic. Melt the oil in a large saucepan. Fry the vegetables and garlic for 5 minutes. Add the beef stock, salt and pepper. Bring to the boil and simmer for 20 minutes. Liquidise the soup. Reheat in a saucepan. Stir in yoghurt before serving. Serves 4

3. Gazpacho
- 450 g (1 lb) tomatoes (peeled) 85 ml (3 oz) beef stock
- 1/2 pepper (green or red) 15 ml (1 tbsp) wine vinegar
- 1 courgette (zucchini) pinch of salt
- 1 cucumber freshly ground black pepper
- 2 spring onions (peeled)
- 2 tspns chopped basil, chives, marjoram or thyme

Halve the tomatoes and remove the seeds. Chop the vegetables and place all the ingredients in a liquidizer or food processor and blend until the soup is perfectly smooth. Serve well chilled (with two or three ice cubes floating in it if you like). Serves 4

4. Tomato soup
- 1 large onion
- 1 clove garlic
- 680g tomatoes
- 1140 ml (2 pints) chicken stock
- 15 ml (1 tbspn) olive oil
- 30ml (2 tbspns) low fat natural yoghurt
- 2.5 g (1⁄2 level tspn) dried basil pinch of salt
- freshly ground black pepper
- 5 g (1 level tspn) granulated artificial sweetener (optional)

Skin and chop the onion. Skin and crush the garlic. Skin and chop the tomatoes (the easy way to skin tomatoes is to pour boiling water over them in a bowl and leave for about a minute). Put the oil in a large saucepan. Gently fry the onion and garlic for 5 minutes. Add the tomatoes and cook for about 2 minutes. Stir in the stock, optional sweetener, basil, salt and pepper. Bring to the boil and simmer for 30 minutes. Liquidise the soup. Reheat in a saucepan and stir in yoghurt. Serves 6

5. Lentil soup
- 225 g (8 oz) lentils 1 onion
- 2 carrots 225 g (8 oz) tinned tomatoes
- canola or corn oil for cooking
- 2 cloves garlic (crushed)
- 1140ml stock parsley

There is a bewildering array of lentils (there are literally dozens of varieties!) on the market. My advice is to follow the cooking instructions on the packet of lentils that you buy. Skin and chop the onion. Peel and chop the carrots. Heat the canola or corn oil in a saucepan and fry the onion and carrots for 5 minutes. Add the remaining ingredients. Bring to the boil and simmer gently for about 1 hour (depending on the type of lentil). This soup can be served as it is or else you can liquidise it if you prefer a smooth soup. Sprinkle with parsley and season to taste.

Incidentally lentils are an excellent source of good protein. Although they are relatively deficient in sulphur-containing amino-acids they are rich in another essential amino-acid, lysine, in which many cereals are deficient. For this reason a combination of lentils and cereal provides a complete protein that compares well with animal protein. So it is a good idea to have a slice of wholegrain or sourdough bread with this soup. Serves 6

6. French onion soup
- 15 g (1⁄2 oz) canola or corn oil
- 455 g (1lb) onions
- 2 cloves garlic, crushed
- 2.5 g (1⁄2 tspn) low-calorie granulated sweetener
- 850 ml (11⁄2 pints) beef stock freshly ground black pepper

Heat the oil in a large saucepan Slice the onions and add to the oil. Stir in the garlic, add the sweetener, and cook over a low heat for 15 minutes until the onions brown. Pour on the stock bring to the boil, cover and simmer gently for 30 minutes. Season to taste and sprinkle with parsley. Serves 4

7. Chicken rosemary
- 4 chicken breasts, with skins removed
- 10 g (2 tspns) dried rosemary (or fresh if you have it)
- pinch of salt
- freshly ground black pepper

Rub the rosemary, salt and pepper into the chicken. Wrap the chicken pieces in foil and bake in an oven, gas mark 5, 375^{o}F (190^{o}C), for 1 hour. Serve with Basmati rice or sweet potato and green vegetables. Serves 4

8. Herb chicken
- 4 chicken breasts with skin and fat removed
- 20 g (4 tspn) English mustard
- fresh chopped herbs – parsley, oregano, rosemary
- freshly ground black pepper
- pinch of salt
- 5 ml (1 tspn) water

Combine the mustard, herbs and water into a paste and smother both sides of the chicken, leaving some for applying later. Place in a small shallow grill or oven tray, and cook on a low temperature until ready. Serves 4

9. Lemon chicken
- 4 chicken breasts
- 55 ml (4 tbspns) fresh lemon juice
- rind of one lemon (grated)
- 30 ml (2 tbspns) canola or corn oil
- 2 cloves garlic (crushed)
- pinch of salt
- freshly ground black pepper

Place the chicken breasts in a greased shallow baking dish. Mix the lemon juice, rind, oil and garlic together. Lightly sprinkle the chicken pieces with a little salt and pepper. Pour the lemon mixture evenly over the chicken. Cover and bake in an oven, gas mark 4, 350^{o}F (180^{o}C), for 45 minutes, basting occasionally. Remove the cover and cook for a further 15 minutes to allow the chicken to brown slightly. Before serving, remove the chicken skin and sprinkle with chopped parsley. Serves 4

10. Chicken with Basmati rice
- 455 g (1 lb) cooked chicken breasts
- 1 green pepper
- 4 sticks celery 1 medium onion
- 115 g (4 oz) mushrooms (sliced)
- 170 g (6 oz) Basmati rice
- 1 clove garlic (crushed) canola or corn oil for cooking
- pinch of salt
- freshly ground black pepper

Dice the chicken and put one side. Cook the rice as directed on the packet. Meanwhile slice the vegetables into even-sized pieces. Heat the canola or corn oil in a frying pan and fry the onion and garlic for three minutes. Add the green pepper and celery and cook for a further five minutes. Add the chicken, mushrooms, salt and pepper. Cover and cook gently for another five minutes. When the rice is cooked mix the rice and chicken and vegetable mixture together. Serve with a salad. Serves 4

11. Breast of chicken with peanut butter and greens
- 4 chicken breasts with skin and fat removed
- 20 g (4 tspn) peanut butter
- 10 g (2 tspns) fresh or dried parsley
- fresh or dried chili peppers, to taste (optional)
- greens – as much as you can manage

Combine the peanut butter and herbs into a paste and smear all over the chicken breast. Cook in a pre-heated oven at medium temperature for 15–20 minutes. Steam or poach or boil the greens, drain and serve with the chicken. A mixture of olive oil and lemon juice makes a tasty dressing if required. Serves 4

12. Chicken casserole
- 4 chicken breasts
- 455 g (1lb) carrots
- 455 g (1 lb) leeks
- 4-6 small new potatoes
- 1 medium onion
- 2 cloves garlic (crushed)
- 2 sticks celery
- 570 ml (1 pint) chicken stock
- 15 ml (1 tbspn) canola or corn oil

Prepare the vegetables by peeling and slicing into even sized pieces. Heat the oil in a large heavy casserole. Fry the chicken pieces until they are golden. Remove the chicken and place on a warm plate. Gently fry all the vegetables in the casserole for five minutes and add the garlic. Return the chicken to the casserole, placing them on top of the softened vegetables.

Pour the chicken stock over the chicken and cook in the oven, gas mark 2, 300°F (150°C), for 2½ hours. This dish needs no accompanying vegetables. Serves 4

13. Chicken peppery pasta
- 100 g chicken breast with skin and fat removed
- 1 dried apricot
- 50 g pasta of your choice
- 15 g (1tspn) parmesan cheese
- olive oil for cooking
- pinch of parsley
- pinch of oregano
- pinch of crushed ground pepper
- small bowl of green salad

Slice and season the chicken to taste. Sauté in a non-stick frying pan, then add the pasta, pre-cooked al dente. Toss-in further seasoning and add the parmesan cheese and chopped apricot. Serve with the green salad. Serves 2

14. Chicken curry
- 4 breasts of chicken with skin and fat removed, left whole or diced as required.Place in a saucepan or oven tray and cover with homemade curry sauce. Cook gently until tender. Serve with steamed or boiled Basmati or Wild Rice. Serves 4

15. Curry sauce
- 2 onions, diced
- 2 cloves garlic, chopped
- 5 g (1 tspn) ginger – fresh, chopped, dried or powdered
- 5 g (1 tspn) cumin powder
- 5 g (1 tspn) turmeric powder
- 5 g (1 tspn) cardamom seeds
- cinnamon powder or stick
- 2 cloves
- 10 g (2 tspns) coriander powder
- 10 g (2 tspns) freshly chopped coriander
- 5 g (1 tspn) freshly chopped parsley
- 15 g (1 tbspn) chilies – fresh of dried
- small amount of ordinary curry powder
- chicken or vegetable stock or water to personal taste
- canola or corn oil for cooking
- 1 carton low fat yoghurt (optional)

(Quantities of each of the above ingredients depend entirely on personal taste.)

With a small amount of canola or corn oil, sauté the onions and garlic in a saucepan, then empty the contents into a colander with a dish underneath. Cover with cling film and allow

to stand over night. Do not refrigerate. Next day, 1⁄2 fill a saucepan with stock or water and put in all the ingredients except the onion and garlic. Boil until only half of the liquid remains, then add the onion and garlic. Put everything into a hand food blender and purée. At this stage it should show the consistency of the curry sauce. You may need to reduce-down further because it is too thin for your liking, so carry on cooking. If it is too thick for your liking, add more stock or water. Now taste the flavour and adjust it to your liking, adding ingredients to suit your family's personal taste. You may at this stage add a carton of low fat plain yoghurt. You now have a fat-free, low calorie curry sauce and your diet will allow you to enjoy as much as you wish.

16. Breast of turkey with courgettes (zucchinis)
- 4 slices of turkey breast
- 30 ml (2 tbspns) low fat plain yoghurt
- pinch of ground cumin pinch of ginger powder
- pinch of cardamom pinch of ground coriander
- pinch of ground peppercorn pinch of salt
- 1⁄2 clove of chopped garlic courgettes (zucchinis) to your need

Gently press each turkey piece into a thick escalope. Combine all the herbs with the yoghurt into a paste and coat the turkey pieces fully. Place on an oven tray and cook in a pre-heated oven at medium temperature for 10–15 minutes. Steam or poach or boil the courgettes whole, drain and serve with the turkey. Serves 4

17. Turkey curry
- 4 pieces of turkey breast
- 2 dried apricots, chopped
- canola oil for cooking
- homemade curry sauce (see previous page)

In a non-stick frying pan gently sauté the turkey pieces lightly in oil. Add the curry sauce and simmer gently for a further minute or two. Check the taste and correct as necessary. When cooked, add the dried apricots and stir gently, adding more water if necessary. Serve with green beans of your choice. Serves 4

18. Fillet of beef steak with asparagus
- 450 g fillet beef steak
- 10 asparagus spears
- 2.5 ml (1⁄2 tspn) olive oil
- 2.5 ml (1⁄2 tspn) canola oil

Smear the steak with the oils and grill gently. Steam the asparagus without over-cooking. Serve with a green salad.Serves 4

19. Oriental beef stir fry

- 450 g (1 lb) rump steak cut into thin slices Choice green vegetables cut into stir fry pieces canola oil for cooking soya sauce, to taste. Sauté the beef in canola oil, add as much vegetables as you can manage. Season with soya sauce and add water, if needed, but do not overcook. Serves 4

20. Spinach and Roast Garlic Salad

- 12 garlic cloves unpeeled
- 60ml (4 tbsp) extra virgin olive oil
- 450gm baby spinach leaves
- 50g (1⁄2 cup) pine nuts, lightly toasted
- juice of 1⁄2 lemon salt and pepper

Preheat the oven to 190ºC (375ºF) Gas mark 5. Place the garlic in a small roasting dish, toss in 30ml/ 2 tbsp of the olive oil and bake for about 15 minutes until the garlic cloves are slightly charred around the edges. While still warm, tip the garlic into a salad bowl. Add the spinach, pine nuts, lemon juice, remaining olive oil and a little salt. Toss well and add black pepper to taste. Serve immediately, inviting guests to squeeze the softened garlic puree out of the skin to eat. Serves 4. Dont worry about the amount of garlic in this salad. During roasting the garlic becomes sweet and subtle and loses its pungent taste.

21. Mexican beef stir fry

- 450 g (1 lb) rump steak, cut into thin slices
- 1 lge or 2 small courgette (zucchini)cut into strips
- 10 strips of green pimentos
- 1 small onion, sliced
- fresh or a pinch of dried chili peppers to taste
- pinch of fresh or dried parsley
- pinch of crushed peppercorns
- pinch of salt
- 10 ml (2 tspns) water

Using a non-stick frying pan, sauté the beef lightly, then add the cut vegetables and some water, stirring all the time. Add the chili according to your taste and, if required, add more water stirring gently. Serve with a bowl of mixed green salad. Serves 4

22. Beef kebabs

- 455g (1 lb) rump steak
- 2 onions
- 1 green pepper 1 red pepper
- 115 g (4 oz) button mushrooms
- 225 ml (8 oz) tomato juice (unsweetened)
- 2 cloves garlic, crushed
- 5 g (1 tspn) dried mixed herbs

- 15 ml (1 tbspn) soy sauce pinch of salt
- freshly ground black pepper

Cut all the visible fat off the steak and cut the meat into large cubes. Mix together the tomato juice, garlic, herbs, soy sauce, salt and pepper. Place the meat in a bowl, pour over the tomato juice mixture, cover with cling film, and marinade for several hours, turning the meat from time to time. Meanwhile peel the onions and cut into quarters. Slice the stalk end off the peppers, remove the cores and seeds, and cut into eight pieces.

When marinaded drain the steak. Take a skewer and thread the meat on to it, alternating with a piece of onion, a piece of pepper and a mushroom, until the skewer is nearly full. Do the same with three more skewers. Grill each skewer under a pre-heated grill, turning frequently, for 15 to 20 minutes, until the meat is well done. These kebabs are also delicious cooked on a barbecue when they can be served with new or sweet potatoes or Basmati rice. Serves 4

23. Roast beef and wholemeal Yorkshire pudding
Roasted meats, without any added fats, so beloved in many cookery books, are easy to cook and are an excellent way of preparing meat because some of the fat is lost during the cooking. Roast beef, served with horseradish sauce and low GI wholemeal Yorkshire pudding (see recipe below), is delicious.

24. Wholemeal Yorkshire pudding
- 115 g (4 oz) wholemeal flour
- 1 egg
- 285 ml (1⁄2 pint) skimmed milk or soya milk
- 15 g (1⁄2 oz) canola or corn oil
- pinch of salt

Make the batter either by sieving the flour and salt into a mixing bowl, adding the milk and egg and mixing to a smooth batter or by mixing the same ingredients in a blender or food mixer. Heat the oil in a Yorkshire pudding tin in a pre-heated oven, gas mark 7, 425°F (220°C), until the fat is hot. Pour in the batter and cook for about 30 minutes.Serves 6

25. Red Pepper and Chilli Soup
- 225 gm red peppers seeded and sliced
- 1 onion
- 2 garlic cloves
- 1 green chilli
- 300ml passata
- 600ml vegetable stock
- 2 tbsp chopped basil fresh basil sprigs (to garnish)

Put the peppers in a large saucepan with the onion, garlic and chilli. Add the passata and stock and bring to the boil, stirring well. Reduce the heat to a simmer and cook for 20 minutes or until the peppers have softened. Drain, reserving the liquid and vegetables separately. Sieve

the vegetables by pressing through a sieve with the back of a spoon or blend in a food processor until smooth. Return the vegetable puree to a clean saucepan with the reserved cooking liquid. Add the basil and heat through till hot. Garnish and serve. Serves 4.

26. Veal escalope with French beans

- 450 g (1 lb) veal French Beans – as much as you can manage
- slice of low fat cheese
- 2.5 ml (1⁄2 tspn) olive oil
- 2.5 ml (1⁄2 tspn) canola oil
- pinch of salt
- pinch of crushed sage
- pinch of freshly ground black pepper
- 5 ml (1 tspn) Marsala wine

Lightly heat the oils in a non-stick frying pan. Season the veal and place in the frying pan and cook very gently. When cooked, place the slice of cheese on top of the veal and serve with your French beans which have been steamed, poached or boiled, according to your taste. Serves 4

27. Veal in breadcrumbs

- 2 egg whites
- 2 escalopes of veal
- 60 g (2 oz) wholegrain or sourdough breadcrumbs
- 60 g (2 oz) canola or corn oil
- 1⁄2 lemon (to garnish)

Beat the egg white and dip the veal in it.. Then dip the veal in the breadcrumbs, pressing the breadcrumbs firmly to the meat. Leave to set in a fridge for about an hour. Heat the oil in a non-stick frying pan and fry the veal for about 5 minutes on each side. Garnish with lemon. Serves 2

28. Pork medallion fillets

- 650 g (11⁄2 lb) pork medallion fillets
- 6 dried apricots soaked in water from the morning
- rape seed oil for cooking
- pinch of salt
- freshly ground black pepper

Remove the apricots from the water and purée them in a blender. Place the medallions in a nonstick frying pan with a smear of rape seed oil and cook very slowly. Heat the purée gently in a small pan and then place on top of the pork. Add seasoning to taste. Serves 4

29. Curried pork medallions

- 4 medallions of pork fillet
- 1 shallot or small diced onion
- 2 dried apricots, chopped
- canola oil for cooking

- 5 g (1 tspn) curry powder
- 45 ml (3 tbspns) water
- French or runner beans – to suit your taste

In a non-stick frying pan, gently sauté the medallions with the shallot/onion and when lightly browned, add the curry powder and sauté for a further minute or two. Add some water and simmer gently. When cooked, add the dried apricots and stir gently, adding more water if necessary. Serve with the green beans of your choice. Serves 4

30. Shepherd's pie
- 450 g (1 lb) lean minced beef
- 20 courgettes (zucchinis)
- 2 onions, diced
- canola oil or corn oil for cooking
- 2 bay leaves
- 5 g (1 tspn) parsley
- Worcestershire sauce to taste pinch of salt
- freshly ground black pepper

Heat the oil in a non-stick saucepan, adding the onions until light brown. Add the lean minced beef and the herbs, salt and pepper to taste. When brown, with no liquid left in the saucepan, place in an oven tray and sprinkle with the sauce. Wash and cut the courgettes into chunks and steam or boil until moderately soft, then drain well. Further crush the courgettes (zucchinis) with a fork, season to taste and spread over the tray of minced beef. Bake in a moderate, preheated oven for 25–30 minutes, then serve with chopped parsley to add colour and taste. This recipe can be served with an additional vegetable of your choice. Remember to season to your liking: seasoning has no GI or fats!

31. Roast lamb with garlic
- 1360 g (3lb) leg of lamb
- 2 cloves garlic
- 5 g (1 tspn) rosemary
- 5 g (1 tspn) thyme
- 3 onions pinch of salt
- freshly milled black pepper
- 285 ml (1/2 pint) meat stock
- 2 sweet potatoes (cut into chunks) or 8-12 new potatoes

Cut the garlic into small slivers and, using a sharp knife, make slits at 5 cm (2-inch) intervals all over the leg and insert the garlic into the slits. Rub the herbs all over the leg and place it in a roasting tin in a pre-heated oven, gas mark 8, 450°F (230°C), for 30 minutes. Meanwhile peel and slice the onions and potatoes, place in a large bowl, and season with salt and pepper. Layer the potatoes and onions around the leg in the tin, pour the hot stock over the vegetables, and return the tin to the oven for a further 1 1/2 hours, reducing the temperature if the

potatoes seem to be browning too quickly. Serve with fresh mint sauce. This is a delicious way of serving a joint without gravy. Serves 4

32. Lamb kebabs
- 455 g (1lb) leg of lamb
- 1 onion
- 1 green pepper
- 4 small tomatoes
- 2 cloves garlic, crushed
- 5 g (1 tspn) dried mixed herbs
-juice of 2 lemons
-pinch of salt
-freshly ground black pepper

Cut all the visible fat off the lamb and cut the meat into large cubes. Place the meat in a bowl, add the garlic and herbs, and season with salt and pepper. Pour the lemon juice over the mixture. Peel the onion and cut into quarters. Cut the green pepper into even-sized pieces. Add the onion and pepper to the meat mixture and stir well. Cover with cling film and leave for a few hours to marinade. Take a skewer and thread the meat on to it, alternating with a piece of onion and a piece of pepper, until the skewer is nearly full. Do the same with three more skewers and put a tomato on to the end of each skewer. Grill each skewer under a pre-heated grill, turning frequently, for 15 to 20 minutes, until the meat is well done. These kebabs are also delicious cooked on a barbecue when they can be served with new potatoes or Basmati rice. Serves 4

33. Lamb curry
- 450 g (1 lb) lean lamb, cut into cubes
- 10 g (2 tspns) tomato purée
- 1 large tomato
- diced fresh chopped coriander
- 15 g (1 oz) chilies – fresh or dried
- canola oil or corn oil for cooking

In a large non-stick frying pan or saucepan, sauté the lamb until brown, then add the tomato purée, fresh chopped coriander and chilies, and further sauté. When ready, add homemade curry sauce and cook in the saucepan or, if preferred in an oven, until the meat is tender. Serve with steamed or boiled Basmati or Wild Rice. Serves 4

34. Grilled sole (or flounder) with grapes
- 4 x 170 g (6 oz) lemon sole (or flounder)
- 115 g (4 oz) green grapes
- 60 ml (4 tbspns) lemon juice
- 30 g (1 oz) canola or corn oil
- chopped parsley
- freshly ground black pepper

Put a little of the oil on each fish and season with pepper. Grill for about 10 minutes, turning once. Meanwhile halve the grapes and remove the pips. When the fish is cooked serve with lemon juice and chopped parsley sprinkled over it and garnish with grapes. Serve with mixed salad and new potatoes. Serves 4

35. Cod fish grill with broccoli

- 4 cod fillets broccoli, to your taste and need
- olive oil for cooking
- 5ml (1 tspn) fresh chopped parsley
- 5 ml (1 tspn) lemon juice
- pinch of salt

Mix the olive oil, lemon juice, parsley and salt into a paste and brush the cod. Grill under a medium heat, but do not over-cook. Steam the broccoli, but do not over-cook. Serves 4

36. Cod with cucumber

- 4 x 170g (6 oz) cod steaks
- 170 g (6 oz) cucumber
- 1 lemon
- 55 g (2 oz) cottage cheese
- 140 g (5 oz) low-fat natural yoghurt
- pinch of salt
- freshly ground black pepper

Grate the lemon and then squeeze the juice from it. Place the fish in an ovenproof dish and add the lemon rind and juice. Cover and cook in a preheated oven, gas mark 4, 350^{o}F (180^{o}C), for 25 minutes. Drain off any excess liquid.

Dice the cucumber and mix it with the cheese, yoghurt, salt and pepper. Heat the mixture and serve on top of the fish. Serve garnished with sliced cucumber and parsley. Serves 4

37. Fillet of plaice (or leatherjacket) with broccoli spears

- 4 fillets of plaice (or leatherjacket or bream)
- broccoli spears to your need
- olive oil for cooking
- 5 g (1 tspn) English mustard
- pinch of fresh or dried parsley
- pinch of ground peppercorn

Put the fish on a baking tray. Combine the herbs with the olive oil to make a paste and smear evenly over the fish. Grill gently until cooked. Steam or poach or boil the broccoli, drain and serve with the fish.Serves 4

38. Haddock (or whiting) in parsley sauce
- 4 x 170 g (6 oz) haddock (or whiting) fillets
- 285 ml (10 oz) low-fat natural yoghurt
- 20 ml (4 tspns) lemon juice
- 60 g (4 tbspns) chopped parsley
- pinch of salt
- freshly ground black pepper

Poach the fish in a little water or grill for 10 to 15 minutes until tender. To make the sauce mix the yoghurt and lemon juice together and carefully heat but do not allow to boil. Season the mixture and add the chopped parsley. Serve the fish with the sauce spooned over it. Serves 4

39. Spicey haddock (or whiting) parcels
- 4 x 170g (6 oz) haddock (or whiting) fillets
- 225 g (8 oz) mushrooms
- 2.5g (1⁄2tspn) ground ginger
- 10g (2 tspns) soy sauce
- 45ml (11⁄2 tbspns) lemon juice
- 30 g (1 oz) canola or corn oil
- pinch of salt
- freshly ground black pepper

Remove the skin from the fish. Take 4 pieces of foil large enough to wrap each fillet of fish in and place a fillet on each. Slice the mushrooms. Mix together the lemon juice, ginger, soy sauce and oil. Put one-quarter of the mixture on top of each fillet and then place the mushrooms evenly on top. Season with salt and pepper and fold over the foil to make 4 parcels. Bake in the oven, gas mark 4, 350°F (180°C), for 40 minutes. Serve with Basmati rice and green salad. Serves 4.

40. Grilled salmon with spinach leaves
- 4 medium-sized salmon fillets or steaks olive oil for cooking
- (20 ml) 4 tspn lemon juice pinch of fresh or dried dill
- pinch of crushed peppercorn
- pinch of salt
- a bunch of spinach leaves according to taste

Combine the oils and seasoning into a smooth paste and spread over the salmon. Grill gently, being careful not to over-cook. Cook the spinach gently with only the water that clings to the leaves and turn occasionally. Bring to the boil and then simmer until soft. Drain the spinach and serve with the salmon. Serves 4

41. Fish curry
- 2 cod fish, cut into strips
- homemade curry sauce

Place the strips of cod fish evenly in an oven tray or casserole dish and cover with homemade curry sauce (see recipe in this book). Cook until tender. Serve with steamed or boiled Basmati or Wild Rice. Serves 2

42. King prawn special with rocket and garlic dressing and asparagus
- 10 king prawns a bunch of rocket leaves
- 5 ml (1 tspn) canola oil or corn oil
- 1 garlic clove, chopped
- pinch of ground peppercorn
- pinch of salt
- 10 asparagus spears

Poach or steam the prawns depending on size, but do not over-cook. Put the rocket leaves in a food blender and mix with the oil, garlic, salt and pepper blending into a purée; water may be added if required. Steam the asparagus spears, drain and serve with the king prawns. Serves 2

43. Apple mousse
- 455 g (1 lb) cooking apples
- 30 g (2 tbspns) redcurrant jelly
- 1 egg white
- ground cinnamon
- 100 ml (1 teacup) water

Peel, slice and core the apples, and cook them until tender. Whilst the fruit is hot add the redcurrant jelly. Liquidise the apple mixture. Allow the mixture to cool. Whisk the egg white until it is stiff, and then fold into the apple mixture. Spoon the mixture into four glass bowls. Serve chilled with a little cinnamon sprinkled on top. Serves 4

44. Home-made low GI mayonnaise
- 285 ml (1⁄2 pint) skim milk or soya milk
- 15 g (1⁄2 oz) cornflour
- 7.5g (1 1⁄2 tspn) dry mustard
- 5 g (1 tspn) paprika
- 12 drops liquid sweetener
- pinch of salt
- 100 ml (6 tbspns) extra virgin olive oil
- 100 ml (6 tbspns) vinegar or lemon juice

Mix the milk and cornflour together in a saucepan to make a paste, and cook until thickened. Place the paste in a bowl, add the mustard, paprika, sweetener and salt, and beat the ingredients until smooth. Gradually add the oil and vinegar (or lemon juice), beating all the time, until the mixture is blended

45. Home-made low GI vinaigrette dressing
- 45 ml (3 tbspns) wine vinegar
- 15 ml (1 tbspn) extra virgin olive oil
- 5 ml (1 tspn) Worcestershire sauce
- 5g dry mustard
- 2 drops liquid sweetener

Put the ingredients into a screw-top jar and shake well.

46. Pasta and chicken salad
- 115 g (4 oz) wholewheat or durum wheat pasta rings or shells
- 225 g (8 oz) cooked chicken
- 2 red apples
- 2 sticks celery pinch of salt
- freshly ground black pepper
- 15 ml (1 tbspn) natural low-fat yoghurt
- 30 ml (2 tbspns) homemade low GI mayonnaise

Cook the pasta al dente according to the instructions on the packet. Leave to cool. Remove the skin from the chicken and cut the flesh into bite-sized pieces. Core and dice the apple. Chop the celery and mix with the pasta, chicken and apple. Season. Add the mayonnaise mixed with yoghurt and evenly coat the chicken-pasta mixture. Serve on a bed of lettuce. Serves 4

47. Tuna and pasta salad
- 1/2 tin, i.e. 99g (3½ oz) tuna in brine
- 115 g (4 oz) wholewheat pasta rings or shells
- 30 ml (2 tbspns) homemade low GI vinaigrette dressing

Cook the wholewheat pasta according to the instructions on the packet. Drain and toss in the vinaigrette dressing. Drain the tuna and flake. Add the tuna to the pasta and chill. Serve on a bed of lettuce with a few radishes as a garnish. Serves 4

48. Tuna salad
- 1 x 7 oz tin tuna in brine
- 1 lettuce
- 2 tomatoes
- ½ cucumber
- 4 spring onions

Arrange a couple of lettuce leaves on each plate. Slice the tomatoes and cucumber and arrange these on top of the lettuce. Flake the tuna fish and divide it between each plate. Chop the spring onions and sprinkle over the top. Serves 4

Diet feature: Tuna in brine has much less fat compared with tuna in oil.

49. Mushroom marinade
- 225 g (8 oz) button mushrooms
- 1 clove garlic, crushed
- 5 g (1 tspn) chopped parsley
- 15 m1 (1 tbspn) unsweetened tomato puree
- 85 m1 (3 oz) white wine vinegar
- 5 m1 (1 tspn) Worcestershire sauce
- 2.5 g (1⁄2 tspn) mustard powder
- 2.5 ml (1⁄2 tspn) liquid sweetener
- 55 ml (2 oz) water pinch of salt
- freshly ground black pepper

Slice the mushrooms and place them in a bowl. Mix all the marinade ingredients together and pour over the mushrooms. Season to taste. Cover with clear food wrap and leave in the fridge to marinade overnight. Give the mushrooms a good stir around two or three times while marinading. Next day drain off the liquid, put the mushrooms into a serving dish and sprinkle with parsley. This salad can be served either as a starter or as a salad accompaniment. Serves 4

50. Mushroom and onion bake (Similar to quiche but without the pastry.)
- 225 g (8 oz) mushrooms, chopped
- 1 medium onion, chopped
- 2 large eggs
- 275 ml (1⁄2 pint) skimmed milk or soya milk
- canola or corn oil for cooking
- pinch of salt
- freshly ground black pepper

Heat the oil in a saucepan, add the onion and soften for a few minutes. Add the mushrooms and cook for about 20 minutes, stirring occasionally. Arrange evenly in the bottom of a greased dish. Whisk the eggs and milk together, and season with salt and pepper. Pour the eggs over the mushrooms and bake in a pre-heated oven, gas mark 4, 350°F (180°C), for about 35 minutes, until the centre is set. (If you like you can add a few courgettes (zucchinis) or tomatoes or any vegetable you have before you add the eggs.) Serve immediately. Serves 2

51. Chilli bean and Frankfurter salad
- 1 x 420 g (15 oz) can red kidney beans, drained
- 1 red pepper, 1 green pepper
- 1 onion
- 2 tomatoes
- 1 head chicory or lettuce
- 4 Frankfurters

Dressing:
- 30 ml (2 tbspns) homemade low GI vinaigrette dressing
- 2.5 ml (1⁄4 tspn) Tabasco sauce

- pinch chili powder
- salt and freshly ground black pepper

Peel and slice the onion, and slice the peppers and tomatoes. Drain and rinse the kidney beans. Cut the Frankfurters into bite-size pieces. Put all the, ingredients into a large bowl. Mix together the ingredients of the dressing and pour over the bean mixture. Stir well and chill. Serve on a bed of lettuce or chicory. Serves 4

52. Grilled tomato and feta cheese salad
- 2 tomatoes, with skin removed and quartered and sliced into thick chunks
- 15 g (1 oz) feta cheese, sliced
- olive oil to taste
- pinch of oregano
- ground peppercorn

Using a sheet of foil, place one layer of tomato in a circle and, in the centre of this circle another layer of tomato. Evenly arrange the feta on top, but not too close together. Preheat the grill to full power, place the meal underneath and allow the feta to become golden brown. Slide portions onto individual plates, sprinkling olive oil, oregano and pepper on top. Serves 4. This tasty dish is vegetarian and it can be used either as a starter or main meal. This recipe is simple, but divine! You are in the Mediterranean!

53. Red cabbage crunchy salad
- 85 g (3 oz) red cabbage
- 3 sticks celery
- 1 apple
- 1/2 green pepper
- 30 ml (1 oz) low fat natural yoghurt
- 15 ml (1 tbspn) homemade low GI mayonnaise

Shred the cabbage, chop the celery and green pepper, core and slice the apple (and dip in lemon juice to prevent discoloration) and place the ingredients in a bowl. Add the yoghurt and vinaigrette and toss well. Serves 4

54. Celery, radish and green pepper salad
- 4 sticks celery
- 12 radishes
- 1 green pepper
- 15 ml (1 tbspn) homemade low GI vinaigrette dressing or lemon juice

Slice the celery into small even pieces, and slice the radishes and green pepper. Mix together in a bowl and add vinaigrette or lemon juice. Serve as a snack or as an accompaniment to snacks or main meals. Serves 4

55. Stuffed peppers
- 4 green peppers
- 340 mg (12 oz) lean minced beef
- 115 g (4 oz) mushrooms
- 2 carrots
- 396 g (14 oz) tinned tomatoes
- 2 small onions
- 2 cloves garlic, crushed
- pinch mixed dried herbs
- 285 ml (1/2 pint) stock
- pinch of salt
- freshly ground black pepper

Fry the beef in its own fat in a non-stick pan. Meanwhile grate the carrots, chop the mushrooms, finely chop the onions, and slice the stalk off the peppers and remove the cores and seeds. Drain off the fat from the beef and add the onions, carrots, mushrooms and garlic. Cook on a low heat until the onions are soft, then add the tomatoes (but not the juice), the herbs and seasoning. Stuff the peppers with the beef and vegetable mixture, then place the peppers in a dish and pour over the juice of the tomatoes and stock. Cover and cook gently in an oven, gas mark 2, 350oF (180oC), for 45 minutes. Serves 4

56. Vegetable curry
- 450 g (1 lb) diced vegetables of your choice
- homemade curry sauce

If cauliflower or broccoli are required in addition, cut into florets and leave one side. Place the vegetables in an oven tray or casserole and cover with homemade curry sauce (see recipe in this book). Cook according to the vegetables you have used: only add cauliflower or broccoli for the final 10 minutes. Serve with steamed or boiled Basmati or Wild Rice Serves 4

57. Cucumber jelly
- 1 cucumber
- 2 lemons
- 5 g (1 tspn) chopped mint
- 5 g (1 tspn) chopped thyme
- 285 g (10 oz) low fat natural yoghurt
- 15 g (1⁄2 oz) powdered gelatine
- pinch of salt
- freshly ground black pepper

Cut 2.5 cm (one inch) off the end of the cucumber, and thinly slice and arrange the slices in the bottom of a glass bowl. Peel the rest of the cucumber and dice. Grate the rind from the lemons and extract the juice. Dissolve the gelatine in 140 ml (1⁄2 pint) cold water in a basin standing over a pan of simmering water. Stir in the lemon juice and rind, pour a thin layer of

the lemon jelly into the glass bowl, and allow to set. Keeping the rest of the lemon mixture over the hot water stir it from time to time so that it does not set. When the bottom layer of the jelly is set whisk the yoghurt into the mixture in the basin, stir in the cucumber, mint and thyme, and season. Pour the mixture into the glass bowl and allow to set. To serve dip the bowl in hot water and turn the jelly on to a plate. If you like, serve with lettuce. Serves 6

58. Ricotta dessert
- 100 g (4 oz) low fat ricotta cheese
- 5 g (1 tspn) granulated artificial sweetener
- 2.5 ml (1⁄2 tspn) vanilla extract

Mix the ingredients together and place in a fridge until chilled. Serve with a sprinkling of toasted almonds or mini chocolate chips. Serves 2

59. Fruit Pavlova or Slimmers' Meringue
- 3 large egg whites
- 5 ml (1 tspn) cream of tartar
- 45 g (3 tbspns) skimmed milk powder
- 30 g (2 tbspns) granulated sweetener
- 1 410g (141⁄4 oz) tin of fruit salad in unsweetened syrup
- 6 sprigs mint

Whisk the egg whites, add the cream of tartar, and continue whisking until the mixture stiffens and peaks form. Add the skimmed milk powder and sweetener, and continue whisking until peaks form again. On a sheet of non-stick paper, draw a circle round an 20 cm (8-inch) plate. Place on a baking sheet, and spread (or pipe) the mixture smoothly in the circle. Cook in a preheated oven, gas mark 1, 275°F (l40°C), for one hour. Cool, then loosen carefully with a palette knife and place on a serving dish. Drain the fruit salad and pile on top of the meringue, and top with the sprigs of mint. Serves 4

60. Peach Melba
- 275 ml (1⁄2 pint) low-fat natural yoghurt
- 2.5 ml (1⁄2 tspn) liquid sweetener
- 1 eggwhite
- 2.5 ml (1⁄2 tspn) vanilla essence
- 55 g (2 oz) raspberries

Blend together the yoghurt and sweetener and chill in the freezer. Whisk the egg white. Turn the yoghurt mixture into a bowl, add the vanilla essence and egg white, and freeze until firm. Sieve the raspberries to make a smooth purée and blend together with the sweetener to taste. Scoop out the ice-cream, serve with the purée, and decorate with slices of peach. Serves 2

61. Orange sorbet
- 1 x 170 g (6 oz) can unsweetened orange juice
- 30 ml (2 tbspns) lemon juice
- 1 egg white
- 5 ml (1 tspn) liquid sweetener
- 285ml (1⁄2 pint) water

Mix together the orange juice, lemon juice, sweetener and water and pour into a suitable container to place in a freezer (such as an ice-cube tray or an old ice-cream tub) and freeze until just firm. Remove from the freezer and tip the mixture into a bowl and mash with a fork or potato masher until the crystals are broken down. Whisk the egg white until stiff and fold into the orange mixture. Once again pour the mixture into a container and freeze until firm. Before serving place the mixture in a fridge for about 20 minutes to allow it to soften slightly. Serve in glass dishes and decorate with a twist of orange or sprig of mint. Serves 4

62. Apple and lemon compote
- 455 g (1 lb) cooking apples
- 30 ml (2 tbspns) lemon juice
- 2 cloves
- 285 ml (1⁄2 pint) water
- liquid sweetener to taste

Peel and core the apples and place in a pan with the lemon juice, water and cloves. Cook gently until the fruit is soft, and then remove the cloves. Serve hot or cold. Serves 4

63. Raspberry sorbet
- 455 g (1 lb) raspberries
- 2 egg whites
- granulated or liquid sweetener

Make a puree out of the raspberries, saving about 10, and then sieve to remove the seeds. Sweeten to taste. Beat the egg whites until stiff and then fold into the puree mixture. Pour into a freezing tray and freeze for about two hours. Turn the mixture into a bowl and mash until smooth. Return it to the freezer and freeze until solid. Serve decorated with two or three raspberries on each portion. Serves 4

64. Red pepper and beanshoot salad
- 1 red pepper
- 225 g (8 oz) beanshoots
- 30 ml (2 tbspns) homemade low GI vinaigrette dressing (see recipe in this book)

Finely slice the pepper and put it into a bowl with the beanshoots. Add the vinaigrette dressing and toss well.Serve with a meat or a fish dish. Serves 4

65. Chocolate soufflé
- 30 g (2 tbspns) cocoa powder
- 30 g (2 tbspns) cornflour
- 10 ml (2 tspns) liquid sweetener
- 430 ml (3/4 pint) skimmed milk
- 55 ml (4 extra tbspns) skimmed milk
- 3 egg whites
- 5 ml (1 tspn) vanilla essence

Heat the 430 ml of skimmed milk. Carefully mix the cornflour, cocoa powder and sweetener with the 55 ml (4 tablespoons) of cold skimmed milk to form a smooth paste. Gently add to the hot milk and cook, stirring all the time. until the mixture thickens. Remove from the heat and allow to cool. Whip the egg whites with the vanilla essence until stiff and fold into the cold chocolate mixture. Spoon the mixture into a serving dish. Serve chilled and decorated with a little grated chocolate. Serves 4

66. Orange and rhubarb
- 455 g (1lb) rhubarb
- 2 oranges
- liquid or granulated sweetener

Cut the rhubarb into even-sized pieces about one inch long. Peel and slice the oranges. Layer the rhubarb and sliced oranges in casserole dish. Cover and bake in the oven, gas mark 3, 325°F (165°C), until the rhubarb is tender (about 30 minutes). Add the sweetener if required when cooked. Serve hot or cold. Serves 4

67. Plum and pear compote
- 225 g (8 oz) plums
- 225 g (8 oz) pears (peeled and sliced)
- 140 ml (1/4 pint) water
- cinnamon
- liquid sweetener to taste

Halve the plums and remove the stones. Place the plums, pears and water in a pan. Cook gently until the fruit is soft and add the sweetener to taste. Serve hot or cold with a sprinkling of cinnamon. Serves 4

68. Apple and blackberry compote
- 225 g (8 oz) apples
- 225 g (8 oz) blackberries
- 140 ml (1/4 pint) water
- liquid sweetener to taste

Peel and slice the apples and wash the blackberries. Put the fruit in a pan with the water, cook gently until the fruit is soft, and add the sweetener. Serve hot or cold. Serves 4

69. Lemon jelly with banana
- 1 banana
- 1 packet of sugar-free lemon jelly
- juice of 1 lemon

Make the jelly as instructed on the packet. Stir in the lemon juice and allow to cool. Slice the banana thinly. Pour a layer of jelly, half an inch to an inch deep, into a mould and allow to set. Arrange the banana slices over this and then carefully pour the remaining jelly mixture over the banana. Allow to set. Unmould to serve. Serves 4

70. Hot fruit compote
- 2 large oranges
- 2 large pears
- 1 apple
- 225 g (8 oz) fresh or frozen raspberries
- 140 ml (1⁄4 pint) water
- liquid sweetener to taste
- cinnamon

Peel the oranges and divide into segments. Peel the pears and apple and cut into slices. Place the fruit in a saucepan with the water and cook gently for about 10 minutes, then add the sweetener and a sprinkling of cinnamon.Serve hot with low-fat natural yoghurt or custard made with skimmed milk or soya milk and artificial sweetener. Serves 4

71. Warm Broccoli and Capsicum with Tofu
- 600g broccoli florets
- 2 large red capsicums (700g)
- 180g firm tofu
- 1⁄3 cup (80ml) olive oil
- 1 teaspoon sesame oil
- 2 tbsp balsamic vinegar
- 1 clove garlic, crushed
- 2 tsps sesame seeds, toasted

Boil, steam or microwave broccoli until just tender; drain, Rinse under cold water; drain. Quarter capsicums; remove and discard seeds and membranes. Roast under grill or in very hot oven, skin side up, until skin blisters and blackens. Cover capsicum pieces with plastic for 5 minutes. Peel away skin; chop capsicum coarsely. Cut tofu into 1cm cubes. Combine remaining ingredients in screw top jar; shake well. Combine vegetables, tofu and dressing in large bowl; toss gently. Serves 4

Names & Meaurements

The names of prescribed drugs.
The **generic** names, are the same in every country. However **brand** names vary, from country to country and whilst most country variations are covered all may not. If in doubt consult your doctor.

Units of measurement
The units of blood sugar (glucose) levels in most counties, (except the USA) , are expressed as mmol/l (known as SI units). In the USA the units used are mg/dl. Fortunately the conversion is simple:

Total serum glucose:

To convert mmol/l to mg/dl: multiply by 18 e.g. 6 mmol/l = 108 mg/dl
To convert mg/dl to mmol/l: divide by 18 e.g. 152 mg/dl = 8 mmol/l

Note - the terms “blood sugar” and “blood glucose” are interchangeable. Whilst not all sugars are glucose, the convention is that the term “blood sugar” is taken to mean “blood glucose”. Similarly “sugar in the urine” means “glucose in the urine”.

Because the blood fats, cholesterol and triglycerides, are important in diabetes it is useful to know the relevant conversions for these.

Total serum cholesterol:

To convert from mmol/l to mg/dl: multiply by 38.7 e.g. 5.2 mmol/l = 201 mg/dl
To convert mg/dl to mmol/l: divide by 38.7 e.g. 250 mg/dl = 6.5 mmol/l

HDL cholesterol, LDL cholesterol:
To convert from mmol/l to mg/dl: multiply by 38.7 e.g. 3.0 mmol/l = 116 mg/dl
To convert mg/dl to mmol/l: divide by 38.7 e.g. 155 mg/dl = 4.0 mmol/l

Serum triglycerides:

To convert from mmol/l to mg/dl: multiply by 88.5 e.g. 2.0 mmol/l = 177 mg/dl
To convert mg/dl to mmol/l: divide by 88.5 e.g. 220 mg/dl = 2.5 mmol/l

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