**What’s In Your Food Transcript**

This video will talk more about specific nutritional components of the food and how this impacts and diabetes.

So firstly, carbohydrates. Glucose, which is the body's essential fuel, comes from carbohydrates in the diet.

There are two main types of carbohydrates -starchy carbohydrates and sugar.

Starchy, or complex carbohydrates include foods like rice, pasta, noodles, bread -all types of bread, whether wholemeal, French, white bread, pita bread, naan bread - breakfast cereals, grains such as couscous, bulgur wheat, polenta, flour in pastries, sauces, pizza bases, plain biscuits, crackers, oatcakes and starchy vegetables such as potato, yam, sweet potato, lentils and beans.

Starchy or complex carbohydrates contains composite glucose units that are held in a complex structure.

They generally contain more fiber, vitamins, and minerals, which mean they're more nutritious than carbohydrates containing added sugar, which is called sucrose.

The amount of carbohydrate eaten is the main factor determining the blood glucose level after eating, but the type of carbohydrate also affects this response.

The amount of carbohydrate that you need depends on your age, your weight, your activity level - and an awareness of carbohydrate food sources, and intake of these foods, will help people to work towards optimal blood sugar control.

The amount of carbohydrate that should be consumed if you have type 2 diabetes is a subject of controversy.

There's a lot of diets using low carbohydrate options which some people with diabetes find really useful for lowering their glucose levels.

Low carb diets involve limiting the carbohydrate and increasing proportions of other components, such as vegetables or meat within the diet.

Whole grain fiber can help slow carbohydrate uptake and maintain blood glucose levels, and assist with normal bowel function. Prevention of digestive disorders, also.

If high-fiber foods are not part of a regular diet, then they should ideally be increased gradually to minimize any GI side effects.

Care should be taken to drink adequate water-based foods with high-fiber diet.

In addition to fibre, it is helpful to consider the glycaemic index or GI of carbohydrate foods.

Glycaemic index is a measure of how quickly carbohydrate foods raise the blood sugar level.

Choosing Low GI carbohydrates, that are absorbed more slowly, helps stabilize and maintain more even blood sugar levels from one meal to the next.

So, to give some examples, dairy, whole-grain bread, and lentils are lower GI than white bread, white rice, and potatoes.

The internet and food labels will help you work out the glycaemic index.

Low GI choices reduce blood sugar peaks after meals, and there's evidence to support an improvement in blood sugar control for those with type 2 diabetes when following a low GI diet.

In addition, low GI choices help to control appetite by making you feel fuller, and making snacking less tempting.

So, on a practical level, we suggest encouraging whole-grain foods, and inclusion of five portions of fruit and veg a day.

Pulses are low GI, and they will also help control cholesterol so - if you can - include beans, chickpeas lentils, and soups and casseroles – and salads - whenever possible, and if wholemeal bread isn't very desirable then moving towards a bread that's more of a mixture of white and whole-grain flours could be a good starting point and at least it will add some fibre.

Fruit and vegetables are an essential part of healthy diet - they're high in fibre content, low in fats, low in calories and provide minerals, antioxidants and vitamins, and can protect against heart disease, stroke and some cancers.

As fruit contains a natural sugar in the form of fructose, it's best spread out over the day rather than taking all at once.

A portion of fruit, for example, is a medium-sized apple, orange, pear, peach or nectarine; two plums, two Kiwis or clementines; a small banana; a handful of grapes; a medium bowl of raspberries, strawberries or blueberries; or a tablespoon of dried fruit.

Larger portions of fruit, eaten quickly, will impact on blood sugar levels. As fructose content of juice in a liquid form is absorbed much more rapidly, we would recommend only taking small quantities of pure, unsweetened fruit juices, or fruit smoothies - so for example, 120ml - and ideally take it alongside solid food at meal times, rather than as a drink on its own.

So, moving on to fat content, whilst fat content of food doesn't impact directly on blood glucose levels, there is a link between high levels of fat in the blood and the risk of heart disease and stroke, which is an important complication in people with diabetes.

Also fat is high in calories, so reducing fat can sometimes help with weight loss. The strong evidence to support reducing saturated fats in the diet, and replacing with unsaturated fats – specifically monounsaturated fats - to try to reduce the risk of heart disease, and this forms the basis of current recommendations in Europe and the US.

Mediterranean-style diets which follow this pattern have been linked to lower blood pressure and improving blood fat levels.

Consumptions of oily fish rich in Omega-3 is also recommended at least twice a week. Popular choices for oily fish include things like herring, mackerel, salmon, trout, fresh tuna, sardines, and pilchards - just some examples.

So, what practical changes can be made to reduce saturated fat intake and increase unsaturated fats?

Any reduction in adding fat during cooking will help the overall fat intake, so cooking methods such as grilling, baking or boiling should be considered.

Use of nonstick pans and spray oil will also help.

Dairy foods contain a substantial amount of fat, and, as they're often consumed at several times of day, should be considered. Think about changing to low fat, monounsaturated spreads and reduced fat milk.

Whole milk contains about 4% fat, semi-skimmed, or green top, about 2%, and skimmed milk, red top, is about 1%.

Choosing a reduced fat version of these foods can lower fat intake on a daily basis.

When buying low-fat options such as yogurt and snacks, however, always check the labels, because sometimes these products have higher sugar content, to compensate for the lower fat, which can raise blood sugar levels.

To salt - excess salt can raise blood pressure, which in turn increases the risk of cardiovascular disease and stroke.

UK guidelines recommend reductions in salt to around six grams per day. Try avoiding adding salt at the table and avoid processed tins or packet foods, which also often have very, very high salt quantities.

In the UK processed food accounts for about 70% of an average person's salt intake.

Alcohol can impact on diabetes control. Alcohol doesn't need to be avoided, but there are some precautions that should be advised maximize safety.

Some alcoholic drinks contain little or no carbohydrates, for example dry wine, spirits. Some contain moderate amounts, such as beer, lager and such as beer, lager and cider.

And others contain significant amounts of carbohydrates, including alcopops, sweet sherries, wines and port.

The effect of alcohol drinks on blood glucose level will therefore vary depending on the amount and the type of alcoholic drink.

A pub measure of spirits contains one unit, while a pint of beer or lager is approximately two units. A large glass of wine can contain up to three units.

It's very easy for people to drink more than they think.

In the last decade wine's becoming increasingly consumed in greater volume and more frequently than before.

A bottle of 12% white wine contains about nine units of alcohol, whilst a bottle of 14% red wine contains about 10 and a half units.

The current UK recommendations for alcohol are that no more than 14 units should be consumed in a week, ideally spread over three or more days, and binge drinking should be avoided.

For anyone who treats their diabetes with either insulin or a group of medications called sulphonylureas, the most common of which being a drug called gliclazide, should be aware that drinking alcohol can cause a hypoglycemia or low blood sugar levels.

These low sugars can occur overnight or even the following day, and for these people a starch-based prepared snack should be eaten, if a few alcoholic drinks have been taken.

This occurs because alcohol can prevent the release of stored glucose from within the liver, an effect that can last for up to 24 hours.

For people treating their diabetes with tablets like metformin, this isn't a concern.

These videos are a summary of healthy eating advice for diabetes, which we advise you now tailor, taking into account your own eating habits, physique, occupation, culture and religious beliefs.

Educating other family members around diet and setting goals for a behavior change can really help.