Healthy Eating and Impaired Glucose Tolerance in Pregnancy
During pregnancy sometimes the body is unable to regulate blood glucose (sugar) levels normally, because of hormonal changes. This is called ‘impaired glucose tolerance’. The sugar in the blood comes mainly from the food sugar and starchy (carbohydrate) food we eat, and some glucose is produced by the body overnight.

**Will it go away after I have the baby?**

After delivery blood glucose levels usually return to normal. You will have a blood test to check your glucose level repeated 6 weeks after the birth.

**Will I develop diabetes?**

Having high blood glucose levels in pregnancy increases the risk of developing diabetes later in life. It is important to have your glucose levels checked every year. By doing this, if you develop diabetes it can be picked up early and treated. See the section at the end of this booklet on how to prevent diabetes.

**Will it harm my baby?**

Having high blood glucose levels in pregnancy may cause your baby to grow too big. Controlling your glucose levels may help.

**What should my blood glucose levels be?**

Aim to have your glucose levels less than 5.5mmol before breakfast. Also check your glucose level 1 hour after each meal and these should be less than 8mmol. If they are regularly outside this range contact your Diabetes Nurse or Dietitian.
Follow these steps to help control your sugars:

- Eat a regular meal during the day - try to have a small meal and a snack between each meal.
- Cut down on sugar, sweet foods and sugary drinks
- Try to choose some higher fibre foods throughout the day
- Eat less fried and fatty foods, or high fat snacks
- Limit alcohol intake, drink no more than 1-2 units once or twice a week.

Each of these steps are discussed in more detail in the following pages.

**Physical Activity**

Along with eating well you should try to do some activity each day.

If you have any concerns about your pregnancy/baby do not hesitate to contact your Community Midwife or Doctor.
Planning your meals

The diagram below shows the ideal amounts from different foods in your meal.

![Diagram of meal planning]

**Starchy foods**

Your body breaks these starchy foods (carbohydrates) down into glucose (sugar). All starchy foods can be eaten, but some will raise your blood sugar less than others.

Try to eat more of the slowly absorbed foods listed below. Limiting portion sizes will also help as shown above. It is important not to cut these foods out completely, have some at each meal.

**Breakfast cereals** Porridge, no added sugar muesli, Special K, All Bran, Shredded Wheat, Weetabix, Fruit and Fibre, Branflakes - small bowl

**Rice** 2 tablespoons cooked boiled easy-cook or Basmati rice

**Pasta** 3 tablespoons cooked all kinds

**Potatoes** 3 small tinned potatoes or sweet potatoes

**Bread** 2 slices multigrain, granary, rye or 1 pittal bread
Fruit and vegetables
Aim to have 2 or 3 portions of fruit and at least 2 or 3 portions of vegetables or salad each day.

**A portion of fruit is:**
- 1 large fruit e.g. apple, small banana, pear, orange
- 2 small fruits e.g. plums, apricots, prunes
- 2 tablespoons stewed/ tinned fruit in juice
- 1 small glass of unsweetened fruit juice (about 100ml)
- 10 large grapes or cherries

**A portion of vegetables is:**
- 2 tablespoons of cooked, raw, frozen or canned vegetables or beans
- a small bowl of salad

Meat, fish, cheese, eggs, nuts and beans
Choose two small portions each day from the following list.

- Lean meats or poultry without skin
- Fresh or frozen fish - preferably not in batter or breadcrumbs.
- Eggs - cooked without fats and oils
- Cheeses - low fat pasteurised soft cheeses or small amounts of hard cheeses
- Baked beans, lentils, kidney beans, chick peas and similar beans, tofu

Note: Oily fish such as fresh tuna, sardines, pilchards, mackerel, trout, kippers, herrings, or salmon may be beneficial for you and the baby, however do not eat them more than twice a week. Avoid shark, sword fish and marlin. Limit the amount of tuna you eat to 4 medium tins a week. It is also recommended you avoid liver. For further information see www.nhs.uk.
Fluid
Aim to have at least eight cups of fluid each day e.g. water, tea, coffee, low sugar or low calorie squash and diet drinks.

Snacks
As you are eating small meals, you will need to have a snack between each meal. Try not to have a snack until you have checked your blood glucose levels 2 hours after a meal.

Try the following suggestions:

- Teacake
- Crumpet
- Scone
- Fruit
- Small bowl of cereal
- Yoghurt
- Glass of milk
- Low fat crisps (occasionally)
- 1 - 2 plain biscuits
- Cereal bar (oat based)
- Toast or sandwich
Sugary foods and drinks

Aim to keep to a low intake of sugary foods and drinks. This will help to keep your blood glucose levels steady and limit excess weight gain.

<table>
<thead>
<tr>
<th>Foods to avoid</th>
<th>Foods to try instead</th>
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<tbody>
<tr>
<td>Sugar added to drinks and cereals</td>
<td>Tablet or sprinkle sweeteners such as Canderel, Splenda, Trimspon, Hermesetas</td>
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<tr>
<td>Sugar-containing drinks</td>
<td>Low calorie or diet squash, fizzy drinks and flavoured waters</td>
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<tr>
<td>Ordinary milky drinks such as drinking chocolate, malted milk drinks</td>
<td>Cocoa and a sweetener</td>
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<td></td>
<td>Low calorie drinking chocolate, Malted milk drinks</td>
</tr>
<tr>
<td>Sugary puddings and desserts, such as sponges, pies and tarts</td>
<td>Low-calorie or sugar-free desserts and milk puddings</td>
</tr>
<tr>
<td>Ordinary milk puddings and instant desserts</td>
<td>1 scoop of ice-cream</td>
</tr>
<tr>
<td>Full fat yoghurts containing cream</td>
<td>Low fat yoghurts</td>
</tr>
<tr>
<td>Ordinary jelly</td>
<td>Sugar free jelly</td>
</tr>
<tr>
<td>Fruit canned in syrup</td>
<td>Fresh fruit, fruit stewed without sugar or fruit canned in juice</td>
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<td>Packets of dried fruit</td>
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Eating Less Fat

Most people in Britain eat too much fat. Eating less fat, especially saturated, will reduce your risk of heart disease and diabetes later in life. It will also help control your weight during pregnancy which will help with your glucose levels.

Ways to have a lower fat intake

- Ready meals and fast foods may be high in fat or oil. Look for ones with less than 5% fat (that is less than 5g fat per 100g)
- Eat fewer pies, pasties, crisps, nuts, corn or potato snacks and biscuits
- Limit roast potatoes or chips to once a week or less
- Limit cheese to 4 ounces a week. Try a low fat variety
- Use skimmed or semi-skimmed milk rather than full cream milk
- Use tomato or vegetable-based sauces for pasta rather than cream or cheese based sauces
- Choose plain fish or fish in breadcrumbs rather than fish in batter

Cooking and preparing food

- Use all fats, spreads and oils sparingly
- Grill, casserole, microwave or bake food rather than frying it
- Use low fat yoghurt rather than cream in cooking or on desserts
- Remove skin and visible fat from meats before eating
Types of fat

Saturated fats tend to raise your blood cholesterol level. **Hydrogenated** vegetable oils, which are used in some manufactured products, do the same. These fats are usually hard or solid at room temperature.

Unsaturated fats, particularly monounsaturated fats and fish oils, offer more benefits to your health.

Ways to change the type of fat you eat

- Choose a margarine labelled ‘high in monounsaturates’
- Use olive oil or rapeseed oil (vegetable oil) for salad dressings and in cooking remember to use these sparingly because they are just as high in calories.

<table>
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<th>Fats to avoid</th>
<th>Fats to choose instead</th>
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</thead>
<tbody>
<tr>
<td>butter, hard margarines, suet, creamed coconut, hydrogenated vegetable oil, meat fats, sausages, pasties, dairy fats including whole milk, full fat cheese, cream and creme fraiche</td>
<td>margarines labelled ‘high in monounsaturates’ eg olive, rapeseed or vegetable rapeseed oil (vegetable oil), olive oil, sunflower oil, soya oil, oily fish</td>
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</tbody>
</table>
Changing your habits
It is not always easy to stick to a sensible eating plan. Eating is often triggered by certain situations, emotions or feelings, not just hunger. Changing the way you think about eating can take time but it will help you keep your blood sugars under control.

Keeping a diary can be a useful start. This may help you understand your eating patterns and how they affect your blood glucose levels. Be honest and write down everything you eat and drink for a few days.

Make a note of:

- when you ate or drank
- how much you had
- where you were
- how you felt at the time and afterwards
- what happened to your blood glucose levels

Looking at your diary
Did some foods increase your glucose levels above 8mmol? Maybe try a smaller portion next time, or avoid them.

Activity

- Being physically active helps lower your blood glucose levels. It can also make your muscles use insulin more effectively.
- Try to take a short walk after meals.
- Increase your activity levels e.g. walking, swimming, tennis, gardening and cycling. If you are unsure, discuss this with your midwife.
Salt
Most people take far more salt in their food than their body needs. If you have high blood pressure, you may be able to reduce it by taking less salt.

- Use less salt in cooking
- Avoid adding salt to meals. Use herbs, spices, vinegar and pepper instead
- Cut back on salty foods such as cheese, processed meats and ready-made dishes

Ask about eating less salt.

Ideas for Meals

Breakfast

- Fruit
- Cereal or porridge with semi-skimmed milk or low fat yoghurt
- Granary bread or toast with a little low fat spread and a small amount of jam, marmalade or savoury spread.
- Smoothie made with fruit and low fat milk.

Quick Meals

- Sandwiches with salad and tinned fish, lean meat or eggs
- Lentil or vegetable soup and a bread roll
- Jacket potato with filling such as baked beans, cottage cheese or tuna served with salad
- Toast topped with baked beans, egg, tinned fish, cheese, tomatoes or mushrooms
- Tinned fish in tomato sauce on bread or toast with low fat spread.
Main Meals

- Lean roast meat with boiled or dry-roasted potatoes and a selection of vegetables
- Pasta with a tomato-based sauce and bowl of salad
- Fish or cottage pie served with peas or a green vegetable
- Vegetable or lean meat curry with rice and salad
- Spaghetti bolognaise made with very lean mince and served with a salad
- Stews and casseroles made with lean meat and vegetables.

Drinks

- Water
- Tea, coffee (without sugar)
- Low calorie or no added sugar squash, fizzy drinks or flavoured water

Note: be careful with fruit juice. It may be labelled ‘no added sugar’ but still contains a lot of natural sugar.
Preventing Diabetes

**After the Birth**

After you have had the baby it is important to continue to eat healthy meals.

Keeping to a low fat diet, keeping your weight in the healthy range and exercise regularly will reduce your chances or delay you developing diabetes.

You may find that you can return to eating larger meals and limiting snacks.

Following the information in this booklet about fat, weight loss and exercise may help you.

**Further pregnancy**

If you decide to have another baby, you may be more likely to have abnormal blood glucose again. You will usually be advised to have a fasting glucose level checked at booking and then a glucose tolerance test at around 18 to 28 weeks.
Aim for healthy weight

Losing the weight you have gained during pregnancy is important for your long term health.

If you are breastfeeding do not try to ‘diet’ until you stop.

It is usually better to make small changes to your eating habits, which can be sustainable, rather than go on a ‘crash’ diet which you cannot keep to for long.

A healthy rate of weight loss is about 0.5kg (one pound) a week.

The best way to lose weight is to reduce your calorie intake from food and increase the amount of physical activity you take.

Many people lose weight just by getting a better balance of foods at meals and cutting down on fatty and sugary foods. Also look at portion sizes.

If you can, be more active. Build up to 30 minutes walking or other activity each day.
If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

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