



Healthy Eating With Gestational Diabetes

Name:

Date:

Dietitian:

Telephone: 021-4920581

**Produced by the Department of Nutrition and Dietetics,
Cork University Maternity Hospital**

August 2021

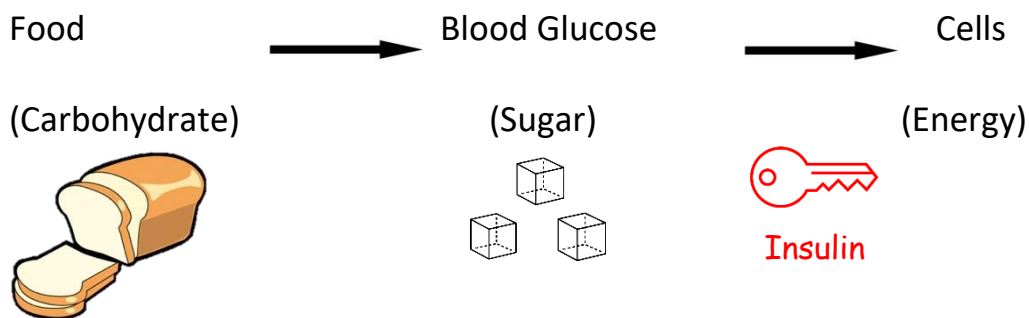
Introduction

What is Gestational Diabetes?

During pregnancy, some women develop a type of diabetes called gestational diabetes. This usually develops in the second or third trimester of pregnancy. It is one of the most common health problems for pregnant women. With gestational diabetes, the glucose (often referred to as sugar) in the blood is higher than normal. It is important to keep your blood glucose as near to normal as possible to minimise any risks for you and your baby.

Why does this happen?

Normally, the food you eat is broken down in the stomach and intestine and passes into the blood as glucose. Glucose is the main source of energy used by the body cells. However, in order to get the glucose into our cells we need a hormone called insulin. Insulin is produced in the pancreas and acts like a key, opening up our cells so that glucose can get in.



During pregnancy, hormones released by the placenta work against your insulin so your body needs to make more insulin than normal to manage your blood glucose levels. This means you have lost some of your keys and the glucose cannot enter your cells. Some women cannot make the extra insulin required and blood glucose levels become too high. High blood glucose levels can lead to complications for both you and your baby.

The good news is that gestational diabetes can be treated, and you can have a perfectly healthy pregnancy.

Treatment

Why is treatment important?

It is important to control the level of glucose in the blood during pregnancy.

- If there is too much glucose in your blood, it passes across the placenta to the baby. This can make the baby grow larger than normal, making delivery more difficult and may cause injury to both you and the baby. The baby's body also starts to make extra insulin to cope with the high sugars. This can result in the baby having low blood glucose when born. There is also a risk that the baby may be jaundiced (yellowing of the skin), have breathing problems and/or have low calcium and magnesium in the blood.
- Having gestational diabetes puts you at higher risk of developing high blood pressure and pre-eclampsia. This is when you have very high blood pressure, protein in your urine and water retention. It may mean that you will have to deliver the baby early.

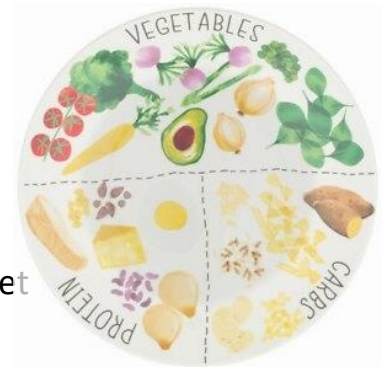
What does the treatment involve?

Treatment of gestational diabetes involves the following:

- ❖ Eating a healthy diet
- ❖ Regular physical activity
- ❖ Measuring your blood sugars and keeping them in target
 - Under 5 before meals/fasting
 - Under 7 two hours after meals

Your diabetes midwife specialist will discuss this with you

- ❖ Taking insulin and /or other medications if needed
- ❖ Maintaining a healthy weight gain
- ❖ Keeping daily records of your blood sugars, food intake and activity
- ❖ Regular appointments



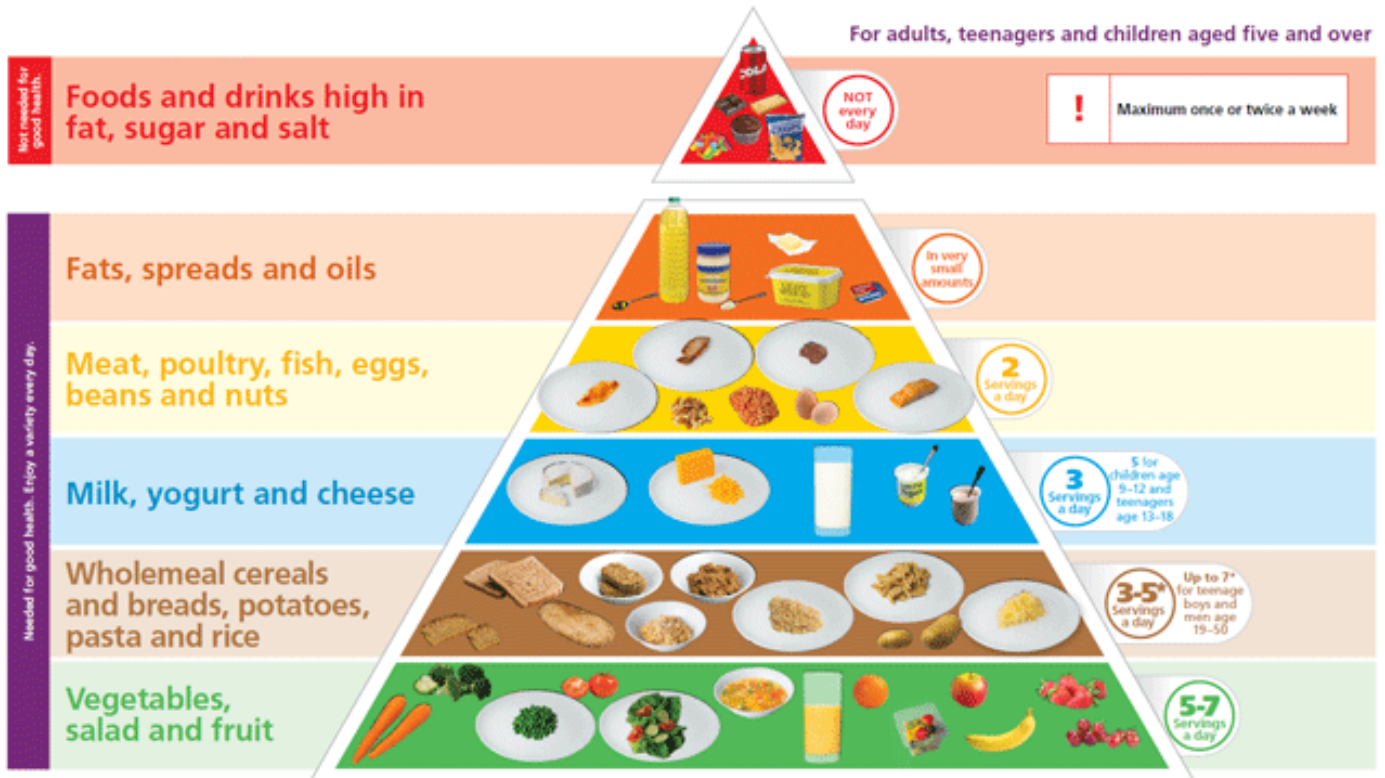
Day	Fasting	Post breakfast 2 hrs	Pre Lunch	Post lunch 2 hrs	Pre dinner	Post dinner 2 hrs	Pre Bed
Monday							



A balanced diet

The diet for gestational diabetes is a healthy one and includes a balance of foods from all the food groups. It is important that your diet still provides all the nutrients, vitamins and minerals needed for a healthy pregnancy.

The food pyramid is a useful tool to plan your meals:



Food contains 3 basic nutrients: Carbohydrate, Protein and Fat.

Carbohydrates-

Carbohydrates have the biggest effect on your blood glucose level. During digestion your body breaks down carbohydrate into glucose, which it then uses for energy. You need to eat carbohydrates regularly throughout the day to ensure that you and your baby have a regular supply of energy. The quantity of carbohydrate you eat will have an impact on your blood glucose levels. It is best to distribute your carbohydrate across 3 meals and 3 snacks each day. Choosing the right types and portions of carbohydrates is very important for controlling your blood glucose levels.

There are two main types of carbohydrate: starches and sugars.

Starches are plant-based foods, such as breakfast cereals, crackers, bread, potato, yam, pasta and rice. Choose **high fiber** options from this group. Fiber will help to slow the release of blood glucose and also helps to prevent constipation. Choose wholegrain, rye or granary bread, wholegrain crackers, wholegrain cereals, wholegrain rice, wholemeal pasta and potatoes with skins on.

Different carbohydrate foods raise blood glucose at different rates. Glycemic Index (GI) is used as a measure of how quickly carbohydrate foods raise blood glucose levels. Food with lower GI raise blood glucose levels more slowly than foods with a higher GI.

Starchy foods with a lower GI include sweet potatoes, pasta, wholegrain rice, pulses and oats. Starchy foods with a high GI include cereals like cornflakes, rice krispies[®], white bread, long-grain white rice, and rice cakes.

Include lower GI foods, e.g. porridge will give you a more gradual release of blood glucose and keep you full for longer than a bowl of rice krispies[®]

Good Choices	
Bread	Wholegrain, multiseed, stoneground, granary, sourdough or 'low GI' e.g. McCambridge [®] Chapati, Thepla, Roti and pitta made from wholewheat, chickpea (gram) or ragi flour
Grains	Whole wheat pasta, wholegrain or basmati rice, quinoa, barley, bulgar wheat, wholemeal couscous, egg noodles
Potato	Boiled new or baby potatoes, sweet potatoes, yam, cassava
Breakfast cereals	All Bran [®] (sticks), Jumbo/ Rolled porridge oats, Shredded Wheat [®]
Crackers	Wholegrain crackers, oatcakes, rye crispbread e.g. Ryvita [®] – seeded good option



Sugars- there are two types: natural sugars and free sugars

- **Free sugars** are digested more quickly in your body and often have a significant impact on blood glucose levels. Free sugars include table sugar, honey, syrups as well as foods which have sugar added such as cakes, biscuits, confectionary and sugary drinks.
- **Natural sugars** are those found naturally as part of a foods such as lactose sugar found in milk and yoghurts, and fructose sugar found in fruit.

Fruit is a good source of vitamins and fibre, but contains natural sugar. You should eat fruit every day but it is important to spread fruit throughout the day, only eating one portion at a time.

A portion of fruit is:

- 1 cup berries e.g. blueberries, strawberries, raspberries, blackberries
- 1 medium fruit e.g. apple, pear, orange, peach or nectarine
- 2 smaller fruits e.g. plums, nectarines, satsumas, clementines, kiwis, fresh figs

Berries are lower in carbohydrate than many other types of fruit and so are usually very well tolerated on a GDM diet.

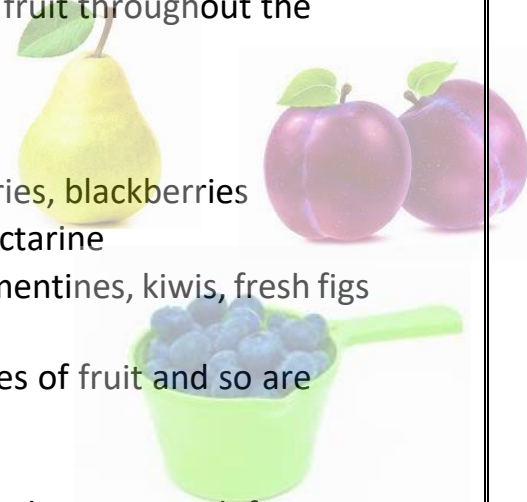
Some fruits raise your blood glucose levels more, so it is best to avoid: fruit tinned in syrup, bananas, grapes, pineapple, pomegranate, mangoes and watermelons.

Dried fruit such as raisins, sultanas, dates, figs and apricots are a concentrated source of sugar and are best avoided.

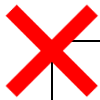
Fruit juice - even if it is unsweetened is very high in carbohydrate and can make your blood glucose rise very quickly. It is better to eat one portion of fruit than to drink it.

Smoothies can contain up to 3 portions of fruit in combination with yoghurt or ice-cream and are better avoided.

Dairy foods like milk and yoghurts contain lactose which is also broken down to glucose. Cheese does not contain lactose as it is removed in the processing. Dairy foods are important during pregnancy as they provide you with calcium and protein. Remember to spread your milk throughout the day and aim to drink no more than 200mls at one time.



It is important to avoid sugary foods and drinks as these can cause blood glucose levels to rise very quickly. Try replacing them with low sugar or sugar-free alternatives. The table below should help you to make some suitable alternative choices. Sweeteners will not affect blood glucose levels and those listed are safe to consume in small amounts.



Foods to Avoid	Better choices
Brown or white sugar, honey, syrup, treacle, fructose, glucose, sucrose, maltodextrin (Calogran)	Moderate amounts of artificial sweeteners (Stevia [®] , Canderel [®] , Hermesetes [®] , Nutrasweet [®] , Natrena [®] , Splenda [®] , Sweetex [®]).
Jam and marmalade, chocolate spreads	Peanut butter, almond butter, cashew butter, hummus, smashed avocado, cream cheese
Squashes, fruit juices, smoothies	Sugar-free squashes e.g. Robinsons No Added Sugar [®] , Miwadi No Added Sugar [®] , Tesco No Added Sugar [®] etc.
Regular fizzy drinks	Sparkling water, Diet sugar-free drinks e.g. 7Up Free [®] , Sprite zero [®] , Diet Coke [®] , Pepsi max [®] . Soda water, flavored mineral waters with no added sugar
Drinking chocolate, Horlicks [®] , Horlicks light [®] , Ovaltine [®] , Ovaltine light [®] , milkshakes	Cocoa made with semi-skimmed milk and sweetener, low calorie hot chocolate e.g. Highlights [®] or Options [®]
Chocolate or cream-filled biscuits	Plain biscuits e.g. Rich Tea, Marietta, Digestive, Oatcakes, Rye or wholegrain crackers or crispbreads
Sugar coated cereals e.g. Frosties [®] , Crunchy Nut Cornflakes [®] , Sugar Puffs [®]	Shredded Wheat [®] , All Bran [®] , Whole rolled porridge oats
Ordinary yoghurts, yoghurt drinks	Natural yoghurt, 0% Greek yoghurt, Alpro plain yoghurt [®] or flavoured yoghurts with no added sugar e.g. Lindahls Kvarg [®] , Glenisk Irish Strained Protein Yogurt [®] , Ísey Skyr [®] etc.
Puddings	Angel Delight No Added Sugar [®] , Tesco Delight No Added Sugar [®] , sugar-free jelly, fresh fruit, stewed fruit (with sweetener)
Sweets and Chocolate	Sugar-free Polo mints [®] , Extra Mints [®] , sugar-free gum
Throat sweets, antacid tablets	Fisherman's friend Sugar-Free [®] , Halls Sugar-Free [®] , RENNIE [®] Sugar-Free, Gaviscon [®] Sugar-Free

Recommendations with Carbohydrate:

- **Spread carbohydrate out across the day:** rather than eating a large amount of carbohydrate at a single meal, it is better to eat your carbohydrate over **three small meals and two to four snacks**. Eating small amounts of carbohydrate through the day will help keep your blood glucose from rising too high after a meal.
- By themselves, carbohydrates release more quickly than if you **'pair'** them with **proteins or healthy fats**. This means carbohydrates eaten by themselves are more likely to cause spikes in your blood glucose levels and you are likely to become hungry quicker.
- Blood glucose tends to be higher in the morning so try to **limit the amount** of carbohydrate at breakfast and avoid added sugars. Don't skip breakfast.
- Include a small portion of starchy carbohydrates at each meal. Choose wholegrain varieties
- Spread fruit and dairy products across the day as part of meals or as snacks
- It is important to include **a bedtime snack** - you need to add a snack of **1-2 servings of carbohydrate** before bed to keep your blood glucose at a healthy level overnight. It is very important to add some **protein** e.g. cheese, meat, egg or nut butter with this snack
- Some medications, like medicines for heartburn and constipation contain sugar. Make sure all medications you take are sugar-free. Speak to your pharmacist about sugar-free options which are safe for you to take while pregnant

Protein:

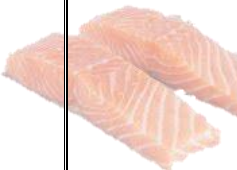
Protein is essential for your baby's development. Foods rich in protein include meat, poultry, fish, eggs, cheese, nuts, nut butters, seeds and soya products. Protein foods will not elevate your blood glucose. **You should aim to include a protein food with every meal and snack.** This can help to control blood glucose levels and stop you becoming hungry.

Fats:


Foods high in fat include butters, spreads, cooking oils and foods made with large amounts of these. Fat is high in calories and in large amounts can affect blood glucose levels by making it harder for your insulin to work. You should avoid deep fried or very high fat foods.

You should continue to include healthy fats in your diet, e.g. rapeseed or olive oil in cooking, nuts, nut butters, seeds and avocados

It is beneficial to choose healthy cooking methods, e.g. boiling, grilling, roasting, steaming or stir frying.




It is important to include the healthy fat, Omega-3, in your diet. Omega-3 fats have been shown to help babies' brain development and are important for heart health. The best source is oily fish, e.g. salmon, trout, mackerel, sardines, kippers and herring. Aim for 1-2 portions of oily fish per week. Vegetarian sources of omega-3s include soya, walnuts, rapeseed oil, seeds and green leafy vegetables, however these are not as well absorbed by the body. If you do not regularly eat foods rich in omega 3 you may wish to consider a supplement.



Vegetables containing mainly water:

These include cauliflower, cabbage, broccoli, green beans, brussel sprouts, aubergines, lettuce, mushrooms, peppers, cucumber, leeks, rhubarb, radish, celery, asparagus, spinach, tomatoes, courgettes and onions. These foods can be eaten in normal servings without elevating blood glucose.

Pulses: include beans, peas, chickpeas and lentils. These are a great addition to your diet as they contain lots of fibre and are a source of protein. Pulses do contain carbohydrate, however they are low GI and affect blood glucose levels at a slow rate. If you are taking large portions of pulses at one time, you need to remember this will likely affect your blood glucose levels. It is helpful to monitor your trend after these meals and, if necessary, you can reduce the portion of starchy carbohydrate you take with this meal the next time. If taking baked beans, choose reduced-sugar varieties.



Free Foods:

These are foods which are considered to contain no carbohydrate and will not affect blood sugars, e.g. include sugar-free or diet minerals/drinks, sugar-free jelly, sugar-free squash, flavoured unsweetened waters, de-caffeinated tea/coffee, sugar-free chewing gum, sugar-free mints.

Special precautions:

- **Alcohol** should be avoided while pregnant. Alcohol can affect your blood glucose and your baby's development.
- Avoid foods labeled '**diabetic**' (sweets, chocolate, jams) or foods that are made with sugar alcohols such as sorbitol, malitol or xylitol. They can cause wind, bloating and diarrhoea.
- **Caffeine:** too much caffeine may decrease the baby's growth or increase the risk of miscarriage. Limit your intake of caffeine to no more than 200mg/day. That's 2 cups of regular brewed coffee or 2-4 cups of tea. One single espresso contains approx 80mg caffeine. Cola and energy drinks also contain caffeine. One can of diet coke contains approx 50mg caffeine. Check the labels for more information.

Other Nutrients:

Multivitamin

During pregnancy, there is a high risk of becoming deficient in a number of nutrients, e.g. iron, iodine and vitamin B12. It is recommended that you take a pregnancy multivitamin daily to ensure an adequate supply of these nutrients throughout your pregnancy.



Vitamin D

During pregnancy and breastfeeding, it is important for you and your baby's health to have good stores of vitamin D. Vitamin D is found in oily fish, eggs, meat and fortified foods, e.g. milks and cereals. We also get vitamin D from sunlight. It is advised that you take a **supplement of 10micrograms of vitamin D**. This can be found in all pregnancy multivitamins.

Food	Serving size (g)	Vitamin D (μg)
Herring, grilled	120	13.1
Mackerel, grilled	120	10.5
Tinned salmon	70	9.1
Tinned sardines	70	5.6
Salmon steak, grilled	120	8.4
Tinned tuna	70	2.3
Egg (vitamin D is found in yolk)	1 average	1.6
Fortified milk (Super Milk)	250ml glass	5
Fortified Cereal (All Bran)	35g	1.5

Folic Acid

It is advised that all women who may become pregnant should take Folic Acid as a supplement before conception. Following this pregnancy, if you think you may become pregnant again, you should ensure that you are taking the recommended 400 μg Folic Acid supplement daily. This is available from your pharmacy. **Some women may require higher doses of Folic Acid pre-pregnancy and you should discuss this with your Doctor/Midwife/Dietitian**

Calcium

Calcium plays an important role during pregnancy. For example, in the development of your baby's bones and teeth. Ensuring an adequate calcium intake during pregnancy may also reduce your risk of developing high blood pressure and protect your bone health in later life. Aim to eat 3-5 servings/day of dairy or fortified milk alternatives.

Fluid:

You should aim to drink at least 2,300mls (2.3litres) of fluid each day. Adequate fluid helps to prevent dehydration, constipation, and helps to ensure that low fluid intake is not confused with hunger signals by your body.

Tip: A great way of ensuring you meet all of your nutrient requirements in pregnancy is to eat a wide variety of foods, particularly different coloured vegetables and fruit.

AIM TO EAT THE RAINBOW

Reading a food label

A food label can be a useful tool when you are trying to decide if a food product you are buying is a good choice when you have GDM.

When considering the effect that a food product may have on your blood glucose levels, remember, it is always the total 'Carbohydrate' that you need to consider, not just the 'Of which sugars', as all carbohydrates break down to blood glucose. See the bread label below as an example:

Nutrition

Typical Values	per 100g	Per slice(50g)
Energy (kJ)	960	480
Energy (kcal)	288	144
Fat (g)	3.5	1.75
of which saturates (g)	0.5	0.25
Carbohydrate (g)	37	18.5
of which sugars (g)	3	1.5
Fibre (g)	6	3
Protein (g)	8.9	4.5
Salt (g)	1.7	0.85

All food labels will include the values per 100g of the product, and most will also include the values per serving. Remember, if you are using the serving size as a guide, it is important that it matches your serving size.

A high fibre food has at least 6grams of fibre per 100g of the product.

By reading the label above for a brown bread we know that it is high in fibre and each slice has 18.5grams of carbohydrate in it.

Every woman's tolerance of carbohydrate can be different but a good starting guide for how much carbohydrate to include at meals and snacks is:

Meal	Guide Carbohydrate Content
Breakfast	20-30g
Lunch	30-50g
Dinner	30-50g
Snacks	15g

Physical activity:

Women with gestational diabetes need regular, moderate physical activity such as walking or swimming to control blood sugar levels. Physical activity helps insulin to work better, which helps keep blood sugars under control. Many women with gestational diabetes benefit from 30 minutes of activity each day. Having a 10 or 15-minute walk after meals can be beneficial in keeping blood glucose levels in target.

Doing 2-3 light sessions of resistance exercise every week (e.g., dumbbells, resistance band and pregnancy Pilates) may also be beneficial in improving your body's sensitivity to insulin. Exercise isn't advisable for everyone though, so ask your doctor what level of activity would benefit you.

If you are unable to engage in regular aerobic physical activity (e.g. if you have SPD/ Pelvic Girdle Pain), alternative forms of exercise may be possible. For example, many women find they may be able to do regular upper-arm exercises. If you are attending a physiotherapist, discuss this with them.



Physical activity can also help to:

- Improve your mood and sleep
- Increase your fitness
- Reduce constipation
- Reduce back pain
- Prevent excess gestational weight gain
- Reduce the risk of developing high blood pressure
- Can reduce the risk of a prolonged labour or need for a C-section



If you are not currently active you can start slowly. Begin with shorter walks and build up gradually

Getting active in between pregnancies and staying active from the beginning of any future pregnancies can help prevent gestational diabetes



Maintaining a healthy weight:

The amount of weight gain that is healthy for you depends on how much you weighed before you were pregnant. When you have gestational diabetes, if you gain too much weight, gain weight too quickly or begin to lose weight, your body may be telling you something is wrong.

The average weight gain during pregnancy is 11.5 to 15.9kg (25-35lbs). Most of the weight gain will take place in the second half of the pregnancy. If you are underweight, you may need to gain more weight than outlined above. If you are overweight, you may need to gain less (your dietitian will discuss this with you).

It is a good idea to keep track of how much weight you gain from the time you learn you are pregnant to the time you have the baby.

IF BEFORE PREGNANCY, YOU WERE...	YOU SHOULD GAIN...	RATE OF WEIGHT GAIN 2ND AND 3 RD TRIMESTER (LBS/KG WK)
Underweight (BMI less than 18.5 kg/m ²)	28-40 pounds (12-18kg)	1 (0.5kg)
Normal Weight BMI 18.5-24.9 kg/m ²)	25-35 pounds (11-16kg)	1 (0.5kg)
Overweight BMI 25.0-29.9 kg/m ²)	15-25 pounds (6-11kg)	0.6 (0.3kg)
Obese BMI greater than or equal to 30.0 kg/m ²)	11- 20 pounds (5-9kg)	0.5 (0.2kg)

Some weeks you may gain weight, other weeks you won't.

It is recommended to keep track of your weight gain as excessive weight gain in pregnancy can lead to complications.

You should not be going hungry or losing weight just to get your blood sugars under control. **The best time to lose weight is before or after pregnancy. If you are concerned about your weight after your baby is born, ask your GP to refer you to the free community dietitian service.**



Breastfeeding

Like all mothers, women with gestational diabetes should breastfeed their babies if possible. Breastfeeding can be even more beneficial for women with GDM and babies born to these women.

Breastfeeding provides a number of benefits for your baby, including the right balance of nutrients and protection against certain illnesses, e.g. asthma, diabetes, obesity, sudden infant death syndrome and respiratory tract infections. Breastfeeding can also reduce the risk for you of developing type 2 diabetes, obesity, cardiovascular disease and other diseases in the future including breast cancer.

It is a good idea to attend breastfeeding classes before your baby is born. If you are concerned about feeding, have questions, or have had difficulty with breastfeeding in the past, you may wish to arrange an appointment with a lactation consultant.

Unfortunately, it can sometimes be more challenging for women with GDM to establish breastfeeding as the milk supply can be delayed. Some women choose to express the first milk (colostrum) antenatally while they are still pregnant, from approximately 37 weeks' gestation. This is called '**antenatal colostrum harvesting**'. It is important that, if you wish to try colostrum harvesting, you discuss this with your doctor who will assess whether it is safe for you to do so. If the doctor agrees it is a good idea for you, they will refer you to the lactation consultants in CUMH who will provide you with more information and the equipment you need.

- Online support videos available on CUMH website and UHK Maternity Services websites
- Cork Cuidiu breastfeeding counsellors cuidiucorkbreastfeeding@gmail.com/0872950179
- www.lalecheleagueireland.com
- <https://www.friendsofbreastfeeding.ie/home/>
- Mychild.ie website (direct link www.breastfeeding.ie)
- www.llli.org/breastfeeding-info/



Frequently asked questions:

What should I do after my baby is born?

After the baby is born, you should check your blood sugars a few times. For most women, blood sugar levels go back to normal after having their baby.

Six weeks after your baby is born, you should have a glucose tolerance test to find out whether your blood sugar level is back to normal. If the test is:

- **Normal:** get checked for diabetes every year.
- **Impaired fasting glucose:** get checked for diabetes every year, make lifestyle changes to lower your risk of developing diabetes.
- **Impaired glucose tolerance:** get checked for diabetes every year. Make lifestyle changes to lower your risk of developing diabetes.
- **Diabetic:** Work with the diabetes team to develop the best treatment for you.
-

Unfortunately, women who have had gestational diabetes have a 50% risk of developing Type 2 Diabetes within 10 years of the pregnancy, and an increased risk of developing cardiovascular disease in later life. This risk can be lowered by continuing the positive lifestyle changes you made in pregnancy.

Will I get gestational diabetes in my next pregnancy?

You are more likely to develop gestational diabetes in a future pregnancy. However, being the right weight for your height, maintaining a healthy diet and taking regular physical activity may reduce your risk. If you know you want to get pregnant in the future, you should have your blood sugar tested about three months before pregnancy to make sure you have not developed Type 2 Diabetes. Ensure you are on the correct dose of folic acid before you become pregnant. If you do become pregnant again make sure your GP knows that you had gestational diabetes in your last pregnancy. **Start the diet before or as soon as you know you are pregnant and maintain your physical activity.**

I am following the meal plan and doing regular physical activity but I still cannot control my blood glucose levels – what can I do?

For the majority of women, changes to diet and physical activity is enough to manage blood glucose levels. However, for some women, medications may be needed to manage GDM. If you have tried the following tips and still cannot control your blood glucose levels, contact your diabetes midwife or doctor to discuss whether you need treatment.

- If you are following the meal plan but feeling very **hungry**, you may be **over-restricting** your food intake to control your blood glucose levels. If you are hungry, ensure you are taking **plenty of vegetables and protein** with all of your meals and snacks. A source of protein (meat, fish, poultry, cheese, nuts etc.) with every meal and snack can help to control blood glucose levels and stop you from becoming too hungry. Most vegetables do not affect blood glucose and are filling as they contain lots of fibre.
- If your blood glucose levels are **high after meals** think about what **type** of carbohydrate you took with that meal. If the **quantity** of carbohydrate was large, try reducing it the next time. If your readings are high after one type of carbohydrate e.g. wholegrain pasta, maybe try a different type next time e.g. baby potatoes.
- Is the carbohydrate you are eating **high in fibre?** (e.g. wholegrain/seeded etc). Fibre helps to slow down the release of glucose from your food, helping to control blood glucose levels and keep you fuller for longer.
- Have you tried taking a **walk** after your meals? Even a **10-15 min** walk after each meal can help control blood glucose levels

All my blood glucose levels are in target except my fasting blood glucose – what can I do?

If you have tried the following tips and still cannot control your blood glucose levels, contact your diabetes midwife or doctor to discuss whether you need treatment:

- Try a **walk** after your evening meal.
- Try having your main meal at lunchtime and a lighter meal in the evening at approximately 6pm.
- If you are having a late evening meal, try to ensure this is no later than 6pm.
- Don't forget to have your bedtime snack and to make sure this has a small amount of slow releasing carbohydrate and protein, e.g. 1 slice wholegrain bread with peanut butter or cheese/a high protein yoghurt/protein bar. Aim to have this snack within 30 minutes of going to bed.
- Avoid fasting for more than 10hours overnight.
- Aim to check your morning blood glucose level **as soon as you wake up**. Getting ready can cause your blood glucose level to rise before checking.

Suggested Meal Plan:

Breakfast

Choose up to **one** option from the following list:

Wholegrain Bread 2 slices	Ryvita 4 ryvita
Wholegrain Crackers 6 crackers	Porridge Oats 40g oats
Shredded Wheat® 2 biscuits	All Bran® 40g

You should include:

Protein Foods:	Egg/ Rasher (lean) /Low Fat Cheese/ Nut butter/ Nuts & Seeds
Vegetables:	Tomato/Mushrooms/Avocado/Salad
Dairy:	Low Fat/ Skimmed milk (200mls)/ 1 portion yoghurt
Drinks:	Water/ Tea/coffee /diet minerals/ sugar free squash.

Snack

1 item from list at back

Light Meal

Choose **one** option from the following list:

Wholegrain Bread 2 slices	Ryvita 4 ryvita
Wholemeal Pitta 1 pitta (60g)	Seeded Wrap 1 wrap (65g)
Wholegrain Crackers 6 crackers	Wholegrain Rice 100g cooked
Wholemeal Pasta 90g cooked	Potatoes 2 medium
Bulgar Wheat 150g cooked	Cous-Cous 120g cooked

Please include the following foods also

Protein Foods:	Meat/ chicken/ low fat cheese/ fish/ egg/ tofu etc.
Vegetables:	Vegetables/ Salad/ Vegetable Soup (not potato)
Drinks:	Water/ Tea/coffee (de-caffeinated)/diet minerals/ sugar free squash
Snack:	1 Fruit portion/ 1 yoghurt/ 200mls milk

Snack

1 item from list at back

Main Meal

Choose **one** option from the following list:

Boiled new/ baby potatoes 2 medium/ 4 small			
Wholegrain Rice 100g cooked	Wholemeal Pasta 100g		
Yams 90g boiled	Plantain 100g boiled		
Chapatti 1 medium	Wholegrain Bread 2 slices		

Please include the following foods also

Protein Foods:	Meat/ chicken/ low fat cheese/ fish/ egg/ tofu etc.
Vegetables:	Vegetables/ Salad/ Vegetable Soup (not potato)
Drinks:	Water/ Tea/coffee (de-caffeinated)/ diet minerals/ sugar free squash
Snack:	1 Fruit portion/ 1 yoghurt/ 200mls milk

Bed time snack

Wholegrain Bread 1 slice	or 3 Wholegrain Crackers/ Oatcakes	PLUS
Protein Foods:	Egg/ chicken/ meat / fish/ cheese/ peanut butter	

OR

One pot of protein yoghurt (with berries & seeds/ nuts if wanted)



Snacks:

(Snacks suitable for bedtime are labeled with a *)

Between meal snacks should contain small amounts of carbohydrate with protein e.g.

- Bread brown (1 slice) with meat/cheese/egg/fish and salad with light spread /mayo /pesto/ avocado*

- Wholegrain crackers (5)/ Oatcakes (3)/ Ryvita (2)/ with cheese and tomato/ nut butter*

- Apple (1)/ Nectarine (1)/Peach (1)/ Kiwi (2)/Orange (1)/Pear (1)/ Berries (1 cup)/ Plums (2)/ Satsumas (2) with a protein food e.g. unsalted nuts & seeds/ nut butter/ cheese

- 1 x 100g pot of Natural Yoghurt e.g. Glenisk Greek Protein Yogurt with 10 blueberries/ raspberries and seeds

- Milk (200ml glass)/ decaf latte or cappuccino

- 1 small pot of protein yoghurt e.g. Kvarg/Skyr etc*.

- Hobnob(1)/Digestive(1)/Rich tea(2)/Polo(2)/Lincoln (2) **with** a protein food e.g. nuts, nut butter, seeds, cheese, slice of meat

- Cup homemade vegetable soup

- Nature Valley **Protein** Bar/Kind **Protein** Bar/Fulfil Protein Bar*

- Hummus (2 tablespoons/30g) and cheese with raw vegetables to dip (celery/peppers/carrot/cucumber) or 2 wholegrain crackers



Take Home Messages:

- Eat regular meals and snacks with small amounts of carbohydrate. It is important to avoid long fasts and find a bedtime snack that works for you.
- Include starchy carbohydrate at each meal in moderate amounts
- Include a protein food with each meal and snack
- Avoid sweet foods and sugary drinks
- Focus on healthy fats. Avoid deep fried foods and large amounts of animal fats
- Exercise regularly after meals: 30 minutes/day



The following foods are low in carbohydrate and can be added to snacks/ meals if you are hungry:



- Small mixed salad – e.g. lettuce, tomato, cucumber, onion (try dressing with balsamic vinegar)
- Lettuce roll-ups – fill with egg, tuna and mayonnaise, cream cheese, cottage cheese, grated cheese, cooked meat, well-cooked prawns
- Olives
- Vegetable sticks e.g. cucumber /carrot sticks/ celery sticks (try using 1 tablespoon of Tzatziki/Natural Yoghurt/ Hummus as dip)
- Broccoli florets/ asparagus/ cauliflower florets
- ½ avocado
- Sundried/ sunblush tomatoes
- 5 Cherry tomatoes / 1 average tomato
- 1 cup of sugar snap peas/ mangetout/ edamame beans
- Hard-boiled egg/scrambled egg/ poached egg
- 1 small omelette with turkey/ham/cheese/mushroom/peppers/spinach
- No added sugar ice pops (make with No Added Sugar squash)
- Stuffed mushrooms or peppers (no breadcrumbs)
- Low fat cheese pieces/ Babybel/edam/gouda/cottage cheese
- Unsalted nuts e.g. Pistachio/ Brazil/pecan nuts/cashew/almonds/ peanuts (approx 2 tablespoons)
- Seeds e.g. sunflower/ pumpkin seeds (approx 2 tablespoons)
- Pieces of chicken/ham/turkey or fish e.g. tuna or salmon
- Tofu
- 1 cup mushroom soup
- 1 bowl of sugar-free jelly



At snack times, if you're hungry try combining a few snack items e.g.:

- Mixed salad with cottage cheese and turkey on wholegrain crackers
- Boiled egg with ham and asparagus tips on 1 slice wholegrain bread
- Baked pepper stuffed with spinach, mushrooms, onions, turkey, feta and wholegrain couscous or quinoa
- Spinach and mushroom omelette with 1 slice wholegrain bread

Supporting Resources

The CUMH website:

<https://irelandsouthwid.cumh.hse.ie/support-services/diabetes-in-pregnancy/>

The diabetes organisations' websites are very helpful for recipes and ideas: You can paste these links into your browser to find useful recipes.

The Diabetes Ireland website:

www.diabetes.ie

<https://www.diabetes.ie/living-with-diabetes/living-with-type-2/food-diabetes/recipes/>

Diabetes UK:

www.diabetes.org.uk

<https://www.diabetes.org.uk/guide-to-diabetes/recipes>

For recipe inspiration for legumes and pluses: <https://www.glnc.org.au/recipes/>

The Rotunda 'Fake Aways' recipes:

<https://rotunda.ie/rotunda-pdfs/PIL/Nutrition%20-%20Fake-aways%20recipe%20book.pdf? t=1585818591>

Useful Instagram pages to follow:

Gestationaldiabetes_dietitian

It is a good idea to keep a food and activity diary, particularly when you are first starting to monitor your blood glucose levels.

Remember, it is important not to over-restrict your intake to control your blood glucose levels. This can actually make it more difficult to control your blood glucose levels and can compromise your nutritional intake. If you feel hungry or are worried about your intake or weight loss, discuss this with your dietitian.

