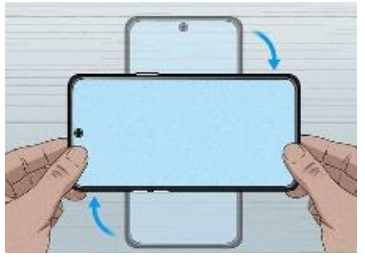
THE ROTUNDA HOSPITAL DUBLIN

Welcome to the Gestational Diabetes Education Class

- Make yourself **comfortable**
- The class will start at 9.30am & take about **1.5 hours**
- Please **type your full name in the chat box directly to the host**

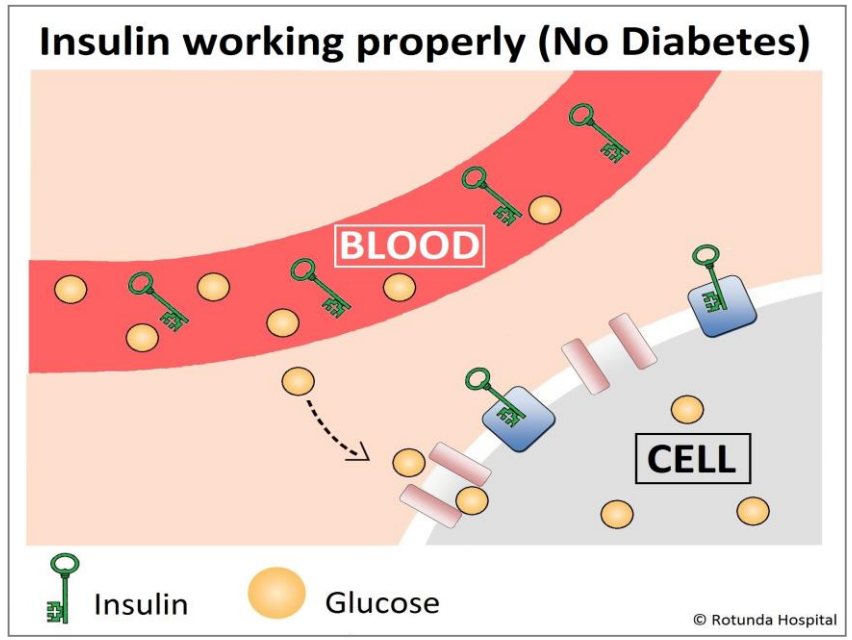


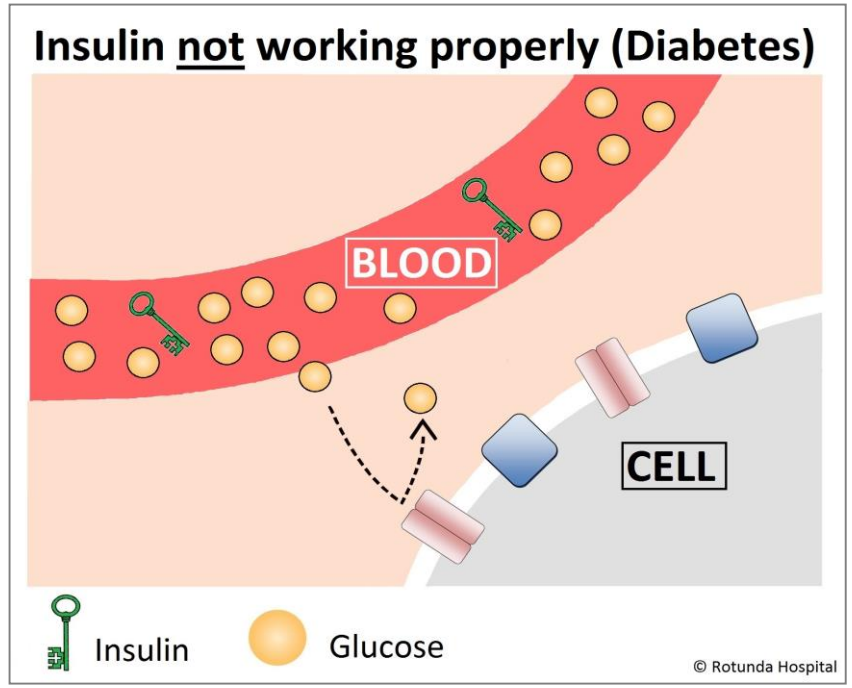
- Please **keep your microphone and camera off**
- If using a phone/tablet, **turn your device landscape** for a better view
- Type any **questions** you have **into the chat box** directly to the organiser
- Please **do not record or photograph** this session.
  - The slides are available on www.rotunda.ie/diabetes

What we will cover today?

- What is Gestational Diabetes?
- Why does it matter?
- Management:
  - Food
  - Physical activity
- Supports available
- How to monitor blood glucose
- Your diabetes care during pregnancy
- What happens after your baby is born?

WHY
ME?


Insulin working properly (No Diabetes)
BLOOD
CELL
Insulin
Glucose
© Rotunda Hospital


Insulin not working properly (Diabetes)
BLOOD
CELL
Insulin
Glucose
© Rotunda Hospital

What is gestational diabetes?

Blood Sugar is also known as **Blood Glucose**

How did you feel when you were told you had GDM?

Emotional Journey

At Diagnosis

Weeks After Diagnosis

After Delivery of Baby

Why is diabetes management important?

- Good management **greatly reduces the risk** of health problems for you and baby

- Persistent **high blood glucose** levels during pregnancy may lead to:

Possible Health problems for you:

- **Pre-eclampsia**
- **Urinary Tract Infections** (UTI)
- **Pre-term birth**

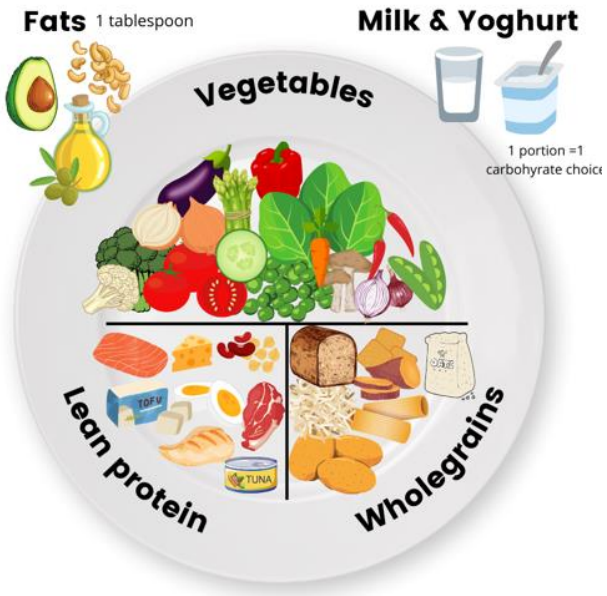
Possible Health problems for your baby:

- **Macrosomia** (large baby)
- **Jaundice**
- **Respiratory Distress Syndrome** (Breathing difficulties)
- **Low** blood **glucose** and **calcium**
- Admission to neonatal intensive care unit

A Treatment Plan for GDM

For most women, gestational diabetes can be managed with:

Food choices



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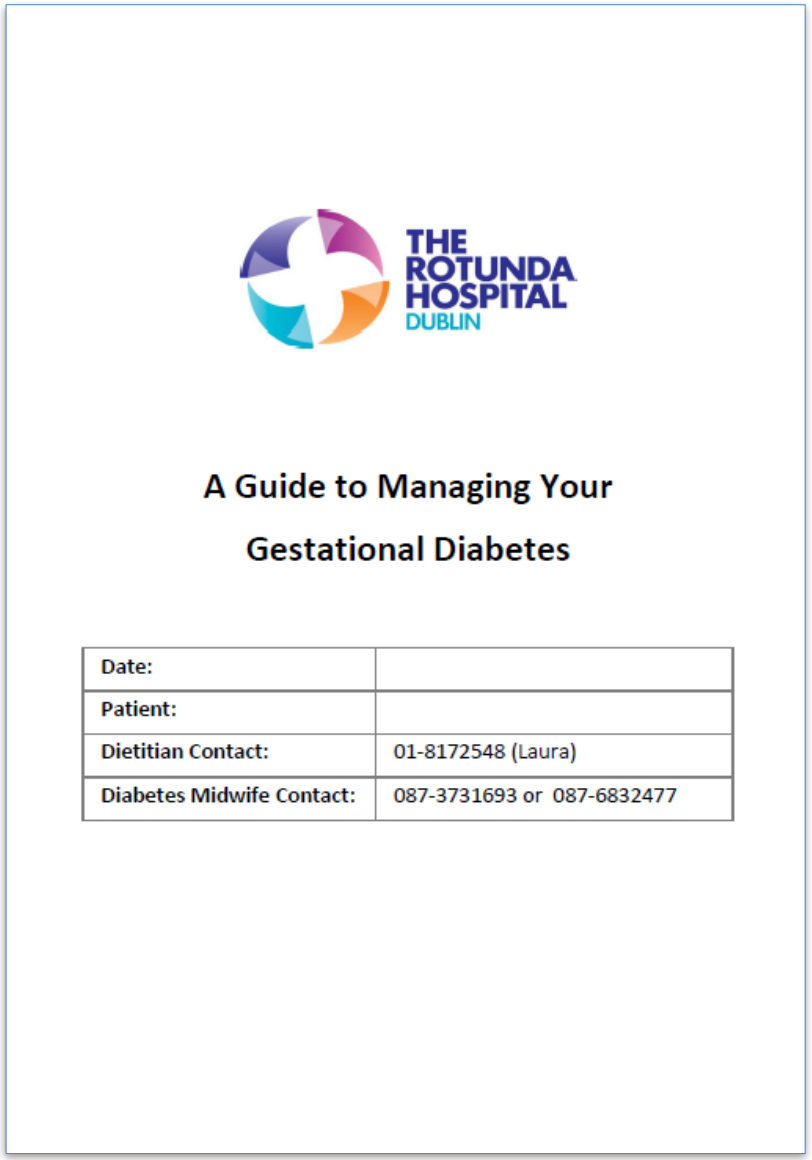
Physical activity

+

Checking blood glucose levels

Information Booklet


THE ROTUNDA HOSPITAL DUBLIN

A Guide to Managing Your

Gestational Diabetes

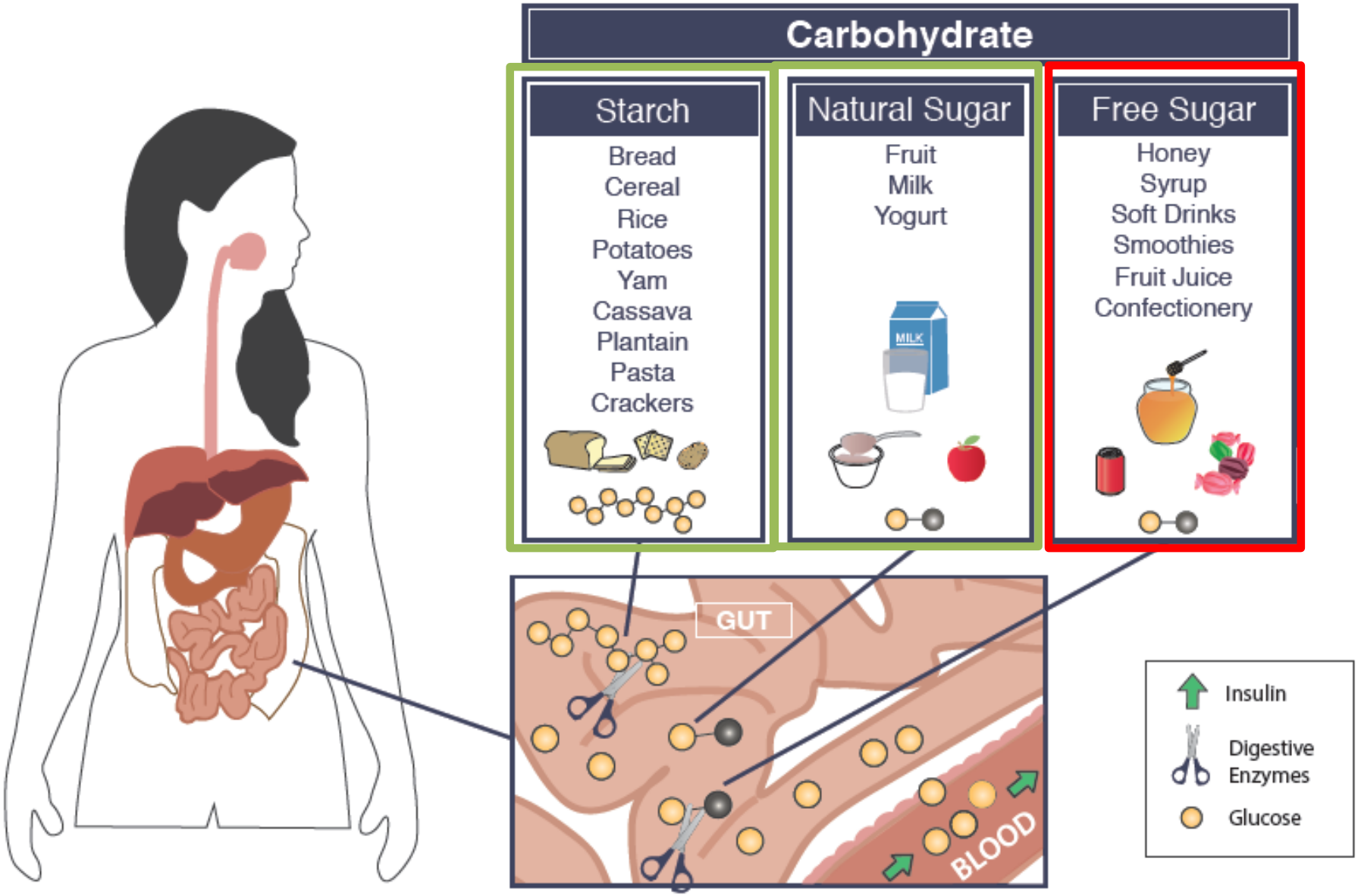
Date:	
Patient:	
Dietitian Contact:	01-8172548 (Laura)
Diabetes Midwife Contact:	087-3731693 or 087-6832477

https://rotunda.ie/diabetes/

YouTube

The Bump Room

Where does glucose come from?



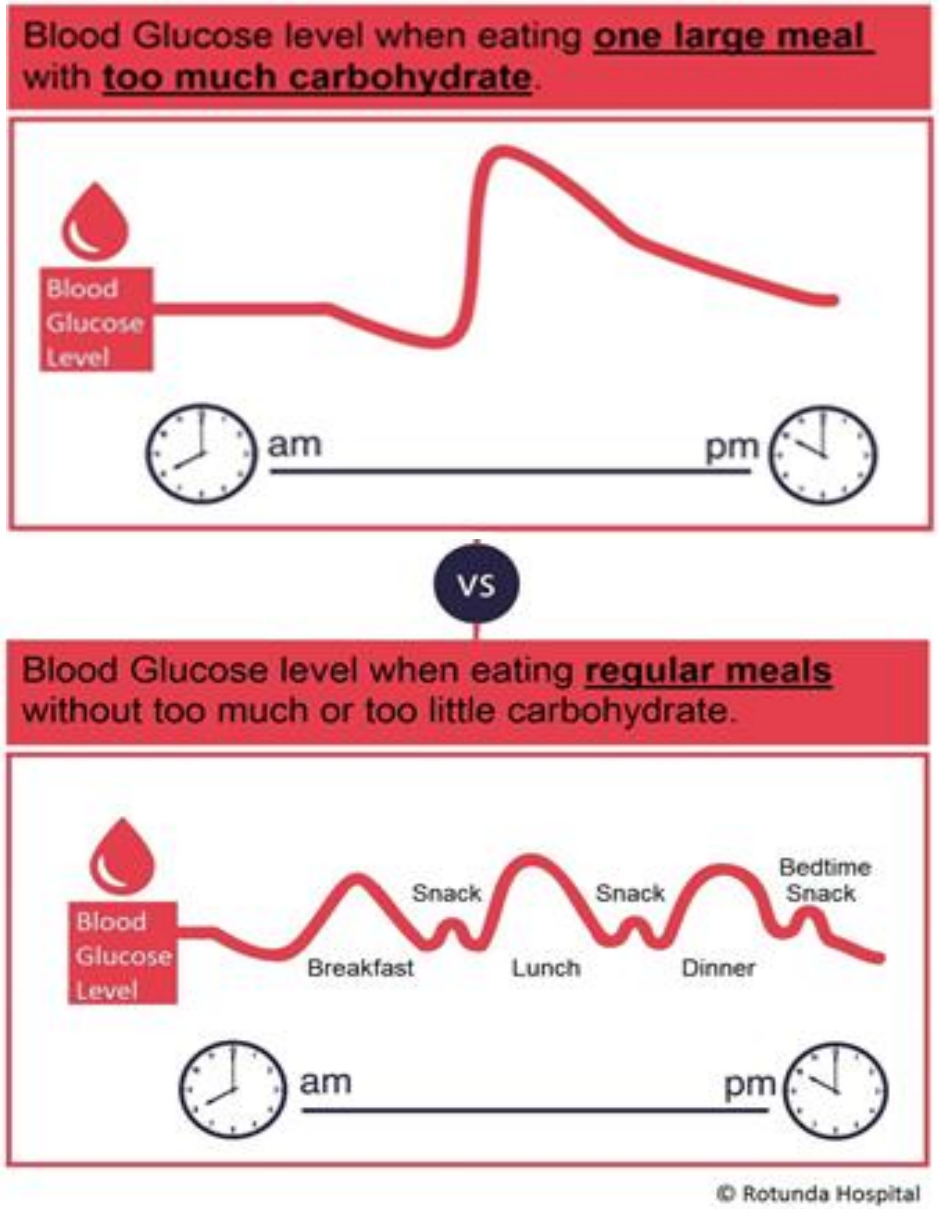
Carbohydrate and blood glucose levels

Eating Carbohydrates is an essential part of a healthy diet in pregnancy

The key to managing your blood glucose levels is to:

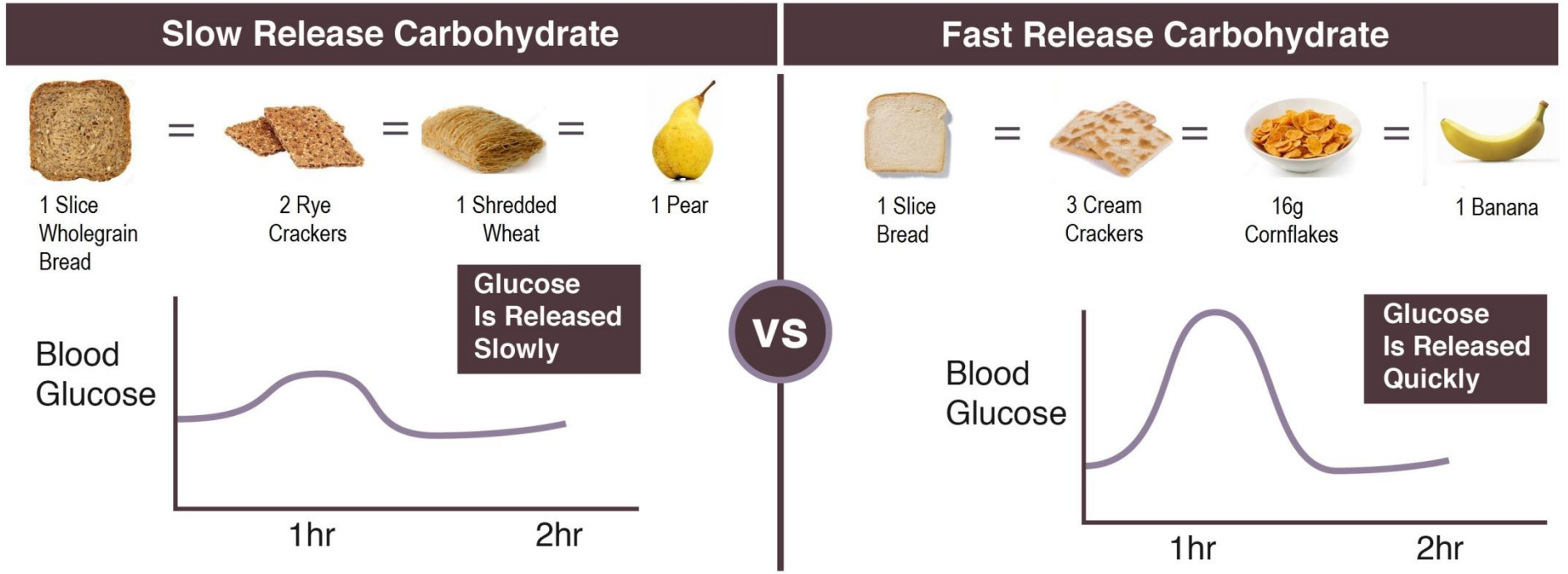
1. Eat **regular meals** and **snacks** containing carbohydrate
2. Choose the **right type** of **carbohydrate** foods
3. Eat the recommended **carbohydrate portion** size

Step 1: Eat **regular meals and snacks** with some **carbohydrate**



- ✓ Breakfast within 1 hour of waking (small amount of carbohydrate)
- ✓ Regular meals (5-6 hours apart)
- ✓ 3 regular snacks each day between your meals
- ✓ Avoid large amounts of carbohydrate at your evening meal
- ✓ Evening/bedtime snack (prolonged fasting may elevate fasting blood glucose levels)

Step 2: Choose **Slow-Release Carbohydrate** Foods



© Rotunda Hospital

Choose these foods.

Limit or avoid these foods

Step 2: Choose Slow-Release Carbohydrate Foods

✓ Try to choose these foods at most of your meals.

BETTER carbohydrate choices	
Bread	• Wholegrain, multiseed, stoneground, rye, "Low GI", sourdough: for example, McCambridge® "Wholewheat" or "High Fibre and multiseed"; Johnson Mooney & O'Brien® "Great Grains"; Brennans® "Wholegrain Chia" or "Be Good" wholegrain *(Aim less than 15g carbohydrate per slice of bread)* • Pita, chapatti, roti made from chickpea or whole-wheat flour. • Wholemeal or seeded tortilla wrap
Cereals	• Jumbo porridge oats, All Bran® (sticks) or Shredded Wheat®.
Grains	• Whole-wheat pasta, white pasta. • Egg noodles, white basmati rice, brown rice. • Whole barley, quinoa, wholemeal couscous.
Potato	• Boiled new or baby potatoes (with skin). • Sweet potatoes, yams, cassava.
Snacks	• Rye crispbread with seeds (e.g. Ryvita ®), oatcakes. • Popcorn (preferably unsalted).
Fruit	• Apple, pear, peaches, plums, berries, fresh figs, kiwi, oranges.
Milk & Yoghurt	• Plain, Greek, natural, "diet" and no added sugar yoghurts, for example, Danone® "Activia 0%", Muller® Light, Irish yoghurts® Diet, *(Aim less than 12g carbohydrate per serving)* • Whole, low-fat and skimmed milks. • Milk alternatives (soy, nut and oat milks) with no added sugar *(aim for 5g total carbohydrate per 100ml, or less).*

See page 6 of your Gestational Diabetes booklet.

Limit or avoid highly processed carbohydrate foods

✗ In general, try to limit or avoid these foods:

Carbohydrate choices to LIMIT or AVOID	
Bread	• White and wholemeal breads. • "Thick cut" or "doorstep" breads (even if wholegrain) • White bagels, bread rolls, chapatti and panini.
Cereals	• All other breakfast cereals including: quick-cook oats, muesli, Weetabix ®, Shreddies ®, Ready-Brek ®, Coco-Pops ®, Cornflakes ®, Rice Krispies ®, Branflakes ® Granola, Special K ®.
Grains	• Easy-cook/ long grain rice or jasmine rice. • Rice noodles or instant noodles (e.g. Pot Noodles).
Potato	• Mashed potato, chips, potato croquettes, waffles.
Snacks	• Crisps, corn snacks, white crackers, rice cakes. • White scones, cakes, biscuits, cereal bars.
Fruit	• Bananas, grapes, mango, pineapple and melon. • Tinned fruit in syrup, dried fruits, fruit juices and smoothies.
Milk & Yoghurt	• Yoghurts with added sugar or fruit compote. • Yoghurt drinks (Yop ®, Yazoo ®). • Flavoured milk and milkshakes. Milk alternatives with sugar.
Other	• Breaded or battered meat, fish and chicken. • Pastries, pizza, yorkshire pudding. • Ready-made sauces with added sugar.

See **page 7** of your Gestational Diabetes booklet.

Choose bread with less than 15g carb per slice

Avoid white, wholemeal and thick cut wholegrain bread

Lower carbohydrate bread options

- Choosing a **lower carb bread** option might be helpful
- Carbohydrate can be poorly tolerated at breakfast (due to morning hormones)

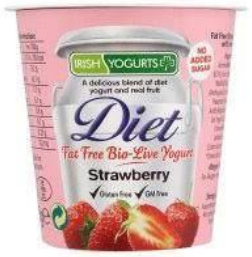
2 slices

1 bagel

1 slimster

Each of these contain only 1 ½ carbohydrate choices (instead of 2 carb choices)

Suitable yogurts



Check the **label:**

Aim for **less than 12g total carbohydrate** per pot.

Strawberry No Added Sugar Yogurt		
	Per 100g	Per serving (125g)
Energy (kcal)	49	56
Fat (g)	0	0
Of which saturates (g)	0	0
Carbohydrate (g)	**6.6**	**7.6**
Of which sugars (g)	6.4	7.4
Protein (g)	4.4	5.1
Salt (g)	0.19	0.22
Calcium (mg)	172	198
Ingredients: Fat Free Yogurt, Strawberry (12%), Oligofrutose, Flavourings, Modified maize starch, Stabilisers (Pectin, Carrageenan,) Black Carrot Juice Concentrate, Acidity Regulators, Sweeteners, Vitamin D, Cultures		

Fruit and Vegetables

Fruit

- Choose **slow release** options:

- Add **protein** when snacking – nuts, nut butter or cheese
- **Avoid:** bananas, grapes, juices, smoothies and dried fruit (raisins, dates, dried figs, prunes) and exotic fruit

Vegetables

- **Beans**, **peas** and **lentils** (dahl) contain some carbohydrate:
  - Glucose is released very slowly.
  - If you are including more than ½ cup in a meal, you might need to eat a smaller portion of other starchy carbohydrates foods.

Avoid high in sugar

Low sugar or sugar-free options

'Sometimes' foods

2 biscuits

<u>3-4</u> square dark chocolate with nuts

Carbohydrate-Free foods

Fat

Oil

Butter

Protein

Fish

Meat

Cheese

Nuts

Eggs

Most Vegetables

Broccoli

Salad

Tomatoes

Onions

Does NOT turn into Glucose

Step 3: Carbohydrate portion sizes

- **Page 9** in your Gestational Diabetes booklet contains a list of **carbohydrate "choices".**

Step 3: Watch your carbohydrate portions

Eating the right amount of carbohydrate (not too much or too little) helps to manage your blood glucose levels and ensure you get enough nutrition.

As a general guide, most women will need to eat:

- ✓ **1-2 carbohydrate "choices"** at **breakfast**
- ✓ **3-4 carbohydrate "choices"** at **lunch** and **dinner**
- ✓ and **1 carbohydrate "choice"** at **snacks**

The foods below all contain a similar amount of carbohydrate (10-15g) in one serving (or "choice"). Use these choices as building blocks to reach the recommended amounts to carbohydrate at meals and snacks

1 carbohydrate choice equals:

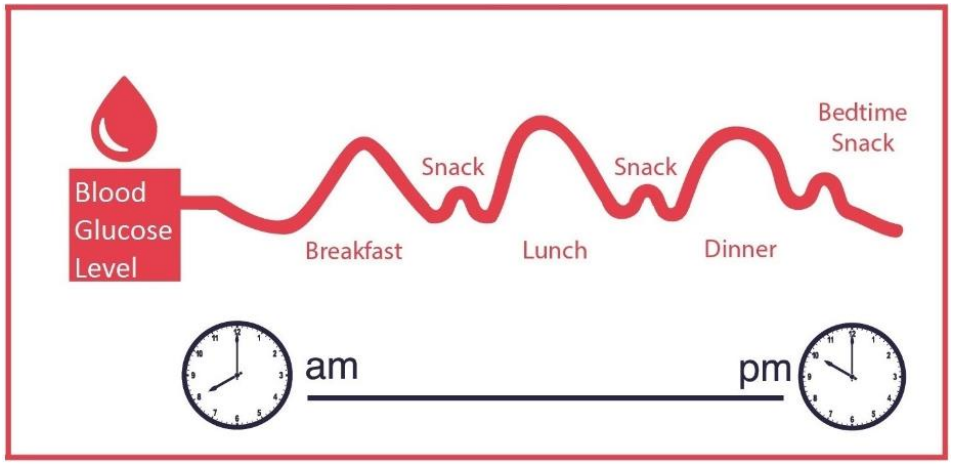
Food	*Serving size (1 carb. choice)*
All Bran®(sticks)	30g
Shredded Wheat®	1 biscuit (22g)
Porridge (jumbo oats)	20g / ¼ cup/ 2 tbsp (oats)
Bread (e.g. wholegrain, stoneground or low GI)	1 medium slice (30-35g)
Pitta bread (wholemeal)	1 small (30g) or ½ large (60g)
Chapatti or Roti (wholemeal or chickpea flour)	35g
Tortilla wrap (wholemeal or seeded)	½ of 8"wrap (full weight 60g)
Seeded rye crisp breads (e.g. Ryvita®)	2 crackers
Wholegrain/seeded oat crackers	2 -5 crackers (check label)
New or baby potato (boiled)	100g or 3 baby potatoes
Sweet potato	75g (boiled) or 50g (baked)
Roast baby potatoes or wedges (homemade)	50g (cooked)
Yam (1 slice) or plantain (unripe)	45g (boiled)
Cassava	50g (raw)
Pasta, rice (brown /basmati) or egg noodles	50g (cooked) or 20g (uncooked)
Couscous (semolina)	70g (cooked) or 20g (uncooked)
Tapioca flour	1 heaped tblsp (15g)
Fruit	1 medium / 2 small/ 1 cup of berries
Yoghurt (plain unflavoured natural/Greek)	200g
Yoghurt (low sugar fruit flavoured)	125g pot
Cow's milk or Oat milk (no added sugar)	200ml glass
Milk alternatives (almond, soy, coconut) with no added sugar	Do not need to be counted as a carbohydrate choice

Step 3: Carbohydrate portion sizes

1 carbohydrate “choice” contains 10-15g of carbohydrate

As a guide, **most women will need** to eat:

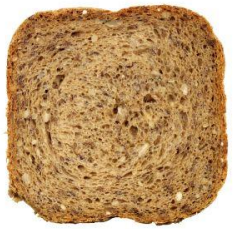
- ✓ **1-2** carbohydrate “choices” at **breakfast**
- ✓ **3-4** carbohydrate “choices” at **lunch** and **dinner**
- ✓ **1** carbohydrate “choice” at **snacks**



If you have had **bariatric or weight loss surgery** in the past, these amounts will be different. You will get an individual appointment with the dietitian to discuss.

These foods all contain 1 Carbohydrate choice

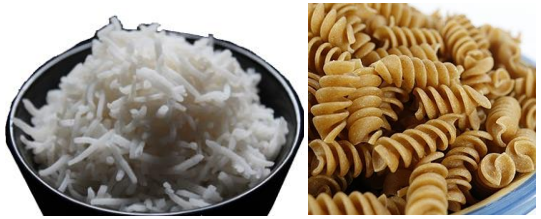
(but look very different!)



1 slice Wholegrain bread

2 Ryvita crackers

½ Tortilla wrap or Chapatti



50g Basmati Rice or Pasta (<u>Cooked</u>)

1 glass of milk

1 pot of yoghurt

1 Shredded Wheat

20g Jumbo Oats

40g All Bran (Sticks)

100g potatoes (boiled)

1 Medium Fruit

2 Small Fruit

1 cup/handful of berries

Cereals, grains and starch

2 Carbohydrate choices =

Pitta Bread (wholemeal)

New Potatoes (boiled)

Brown Bread

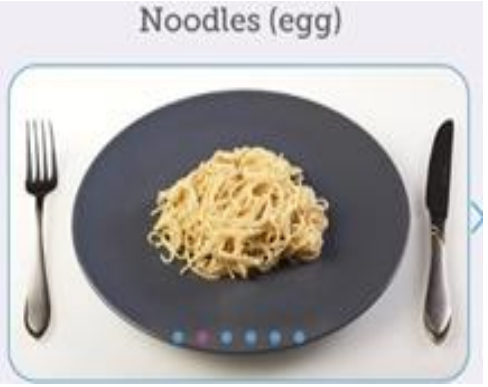
Basmati Rice

Pasta Bows

Yam (boiled)

Tortilla (wholemeal)

Noodles (egg)



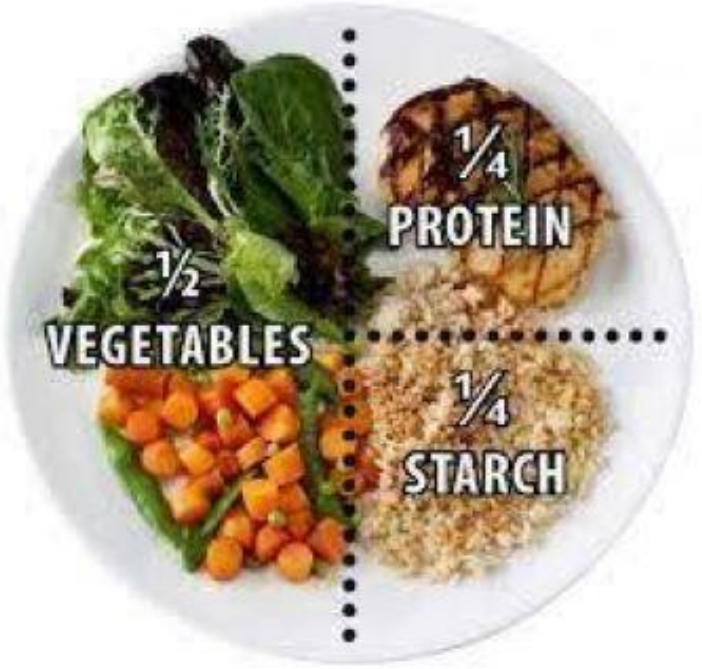
Plantain (boiled)

Chapati

Sweet Potatoes (baked)

Images from the Carbs & Cals iOS app

Useful measures:



<u>1 Cup</u> or <u>1 Fist</u> or <u>1/4 plate</u>

of cooked rice, pasta, egg noodles etc.

= **2** carbohydrate choices

What we've covered so far…

1. Importance of **activity** in managing blood glucose
2. Think about carbohydrate:
    - Which foods contain carbohydrate
    - Eating **regular meals** and **snacks**
    - Choose the **right type** of **carbohydrate** foods
    - Watch your carbohydrate **portion size**

Next…… Putting meals and snacks together

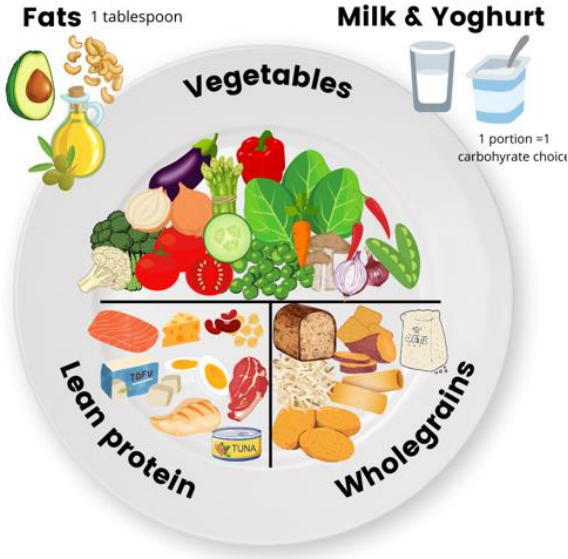
Putting meals and snacks together

1. Choose **slow release carbs**

2. Choose the **right amount of carbs** for that meal or snack

   As a guide, **most women need** to eat:

   - ✓ **1-2** carbohydrate "choices" at **breakfast**
   - ✓ **3-4** carbohydrate "choices" at **lunch** and **dinner**
   - ✓ **1** carbohydrate "choice" at **snacks**



3. Choose **Balance your meal** for better blood glucose management:

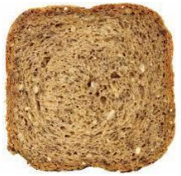
   - Add **protein** – meat, chicken, eggs, tofu, Quorn
   - Add **healthy fats** – olive or rapeseed oil, avocado, pesto, olive spread
   - Add **fibre** – Wholegrains, nuts, seeds, vegetables and fruit

4. Add **flavour** and **enjoy** your meals!

Breakfast

These examples contain 2 carb choices:

✓ 2 wholegrain toast + egg/cheese, avocado, tomato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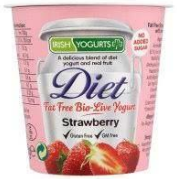


or

✓ 1 slice wholegrain toast + 1 pot diet yoghurt or 100g low sugar beans

✓ Suitable breakfast cereal, such as:

- 1 Shredded Wheat® + 150-200ml milk
- 30-40g All-Bran®sticks + 150-200ml milk
- 40g porridge (jumbo oats) made on water + boiled egg or 30g porridge made with 200ml milk

✓ 100g cooked basmati rice or 2 small wholemeal chapatti (60g weight) and meat/vegetable curry

&

or

Images from the Carbs & Cals iOS app

Lunch and Dinner

These examples all contain 3 carb choices

(but look very different!)

2 Choices

&

1 Choice

2 Choices
(200g potatoes)

1 Choice

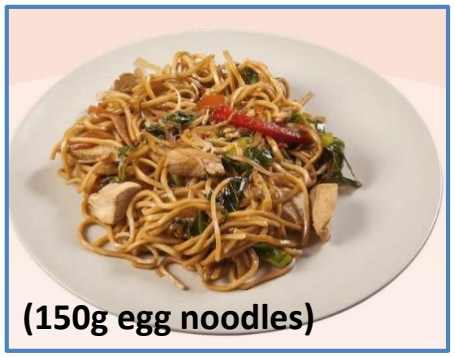
&

3 Choices
(150g rice)

Images from the Carbs & Cals iOS app

Lunch and Dinner: (3 carbohydrate choices)

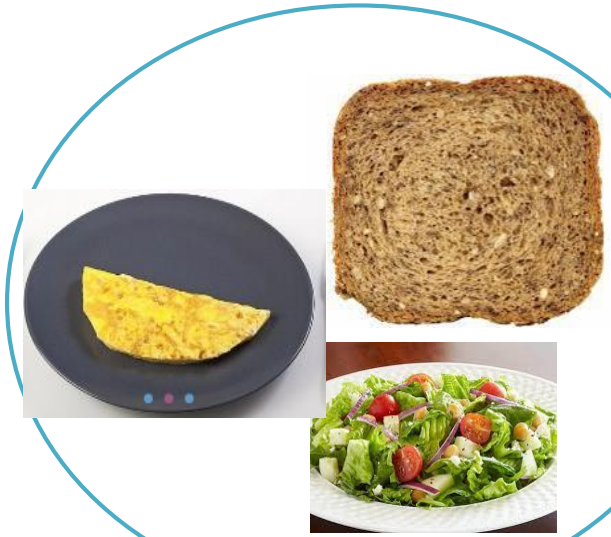
(150g pasta)



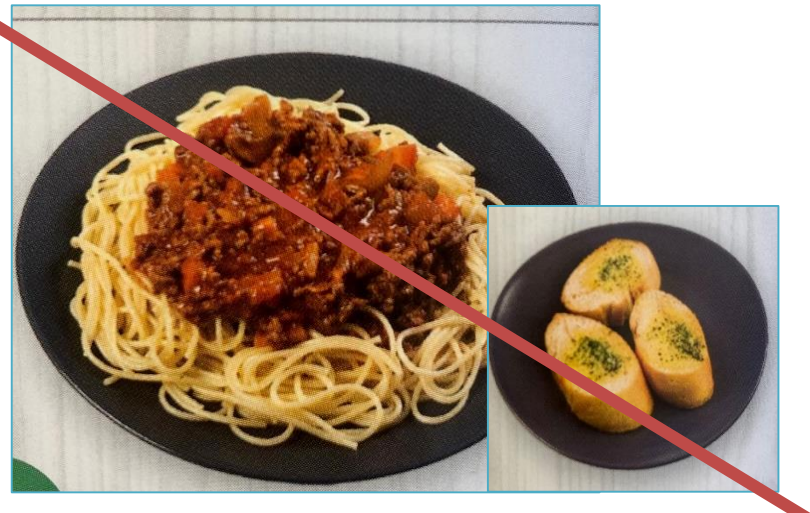
(150g egg noodles)

Suitable snacks (1 carb choice + protein):

Choose 1 option per snack



Very high carb meals ➔ high blood glucose levels



Gestational Diabetes Recipe ideas:

Breakfast

- Homemade Granola
- Shakshuka with feta
- French toast
- Baked oats with raspberries

Lunch

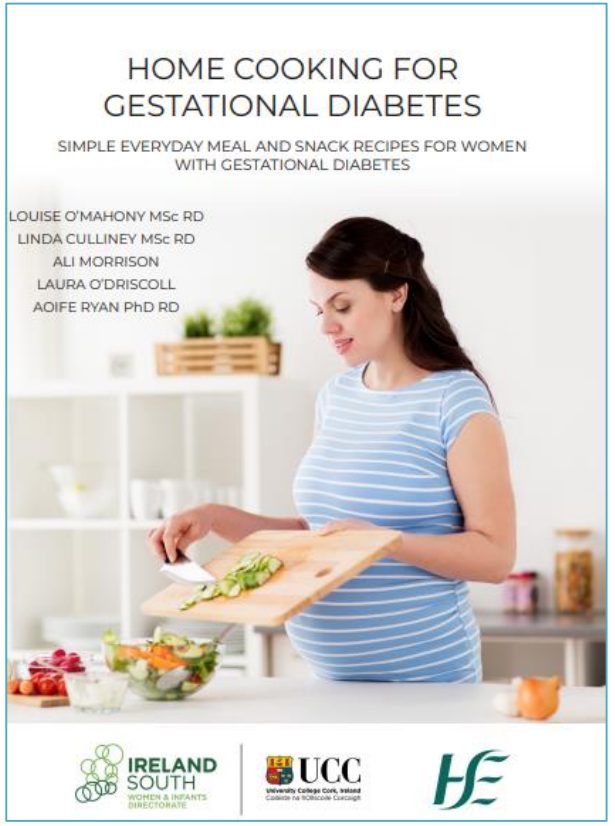
- Wholwheat chapatti wrap
- Tuna pasta salad
- Club pita
- Chicken noodle soup
- Veggie omelette with sausages and toast

Dinner

- Lasagne
- Chilli con carne
- Thai Green curry
- Pizza Wrap
- Sweet potato shepherds pie

Snacks – savoury and sweet

- Roasted chickpeas
- Mezze platter
- Bruschetta
- Energy balls
- Chocolate mousse



Scan me

Managing some common issues

High fasting level before breakfast	High levels after breakfast	High level after other meals	Feeling hungry or lost weight
Hardest reading to manage • Try dinner before 7.30pm ✓ Watch carbs and fat • Exercise after dinner • Snack before bed ✓ Low GI carb + protein ✓ Or protein-only • 8-10 hours overnight fast • Drink enough water • Get enough sleep (easier said than done!)	• Breakfast cereals do not work for lots of women ✓ Try swapping to a bread + protein option (with 2 carb choices) • If glucose still high: ✓ Try lower carb bread (1.5 carb choices) ✓ Try "split breakfast" (1 carb choice.	• Check carb servings aren't too big (weigh them) • Are you choosing slow-releasing carbs? • Always include protein and vegetables. • Consider 10-15 minutes of physical activity after your meal.	• Some weight loss is OK once diet is balanced and baby's growth is normal. • If you are hungry: ✓ Portions too small? ✓ Add extra protein and fibre (more flling) ✓ Snacks between meals ✓ Extra carb-free snacks

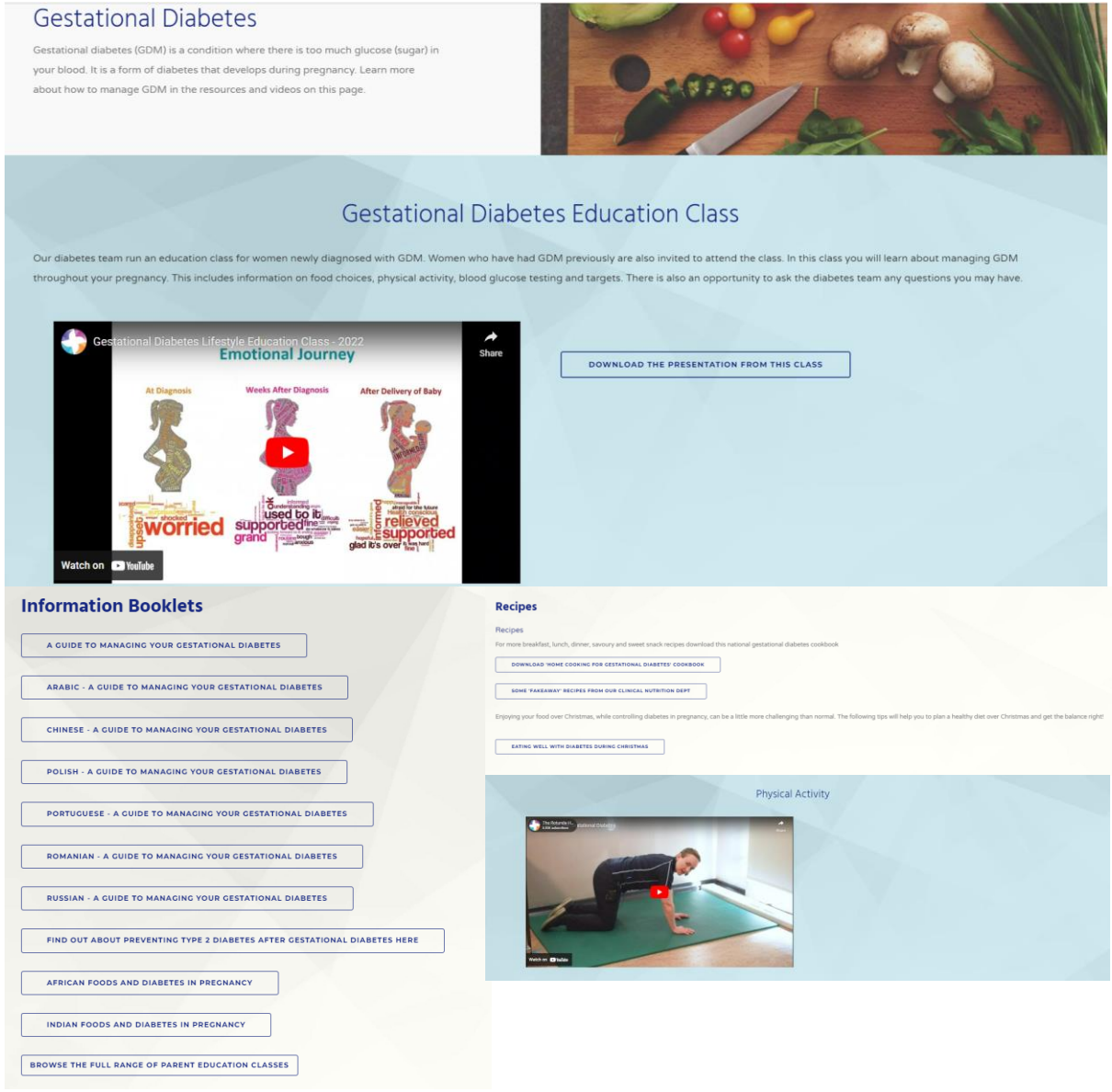
If your blood glucose levels are still high after trying these tips, your diabetes team will support you with a plan to help manage your levels.

What if I need extra support with my diet?

- Resources available on the Rotunda website https://rotunda.ie/diabetes/

Scan me

This QR code will bring you to the Rotunda Hospital website section on Diabetes.



- Information on extra support in Gestational Diabetes booklet page 21.

- **Contact details:**

  Dietitian 01 817 2548
  Diabetes midwife/nurse 087 373 1693
  Mental Health team 01-8730632

The next steps….

✓ Changes to food and activity

✓ Take a daily pregnancy multivitamin

✓ Check and record your weight (every 2 weeks)

✓ Extra supports

Gestational Diabetes Team

What we'll cover in this portion of the class:

- Monitoring/follow up care
- What happens after my baby is born?
- Ordering your glucometer pack
- Set up and use of glucometer
- Questions

Monitoring your gestational diabetes

- The Diabetes team ask you to test your blood glucose levels **4 times per day**:

When to test your blood glucose	Aim for blood glucose level:
Before breakfast	Less than 5.3mmol/L
1 hour after you finish eating breakfast	Less than 7.8mmol/L 1 hour after you finish eating
1 hour after you finish eating lunch	
1 hour after you finish eating dinner	

- New diagnosis of GDM: You will **check** blood glucose levels **every day.**

- Previous GDM: You will check blood glucose levels **2 days per week** until 28 weeks, then test **everyday** from **28 weeks**.

Monitoring your gestational diabetes

For most of you, **appropriate food choices**, **physical activity** and **regular monitoring** will be sufficient to manage your blood glucose.

However for some women, no matter how closely you follow the lifestyle advice, you may require additional help with medication to manage your blood glucose.

Follow-up care

- You will be given an appointment time for the Gestational Diabetes **virtual clinic** every 2-4 weeks.
  - The diabetes team will review your blood glucose levels on this day and contact you.

- You will be given an appointment for an extra **ultrasound scan** when you are **32 – 34 weeks** pregnant to monitor your baby's growth.

- If your diabetes is well-managed after 36 weeks, you will be discharged from the virtual clinic. You should **continue** to follow the diet and lifestyle advice and test your blood glucose levels **until delivery**.

- You will continue to attend your scheduled antenatal appointments.

- Contact us at any stage if you are having any difficulties.

What happens after my baby is born?

- Once your baby is born you can **stop checking** your blood glucose levels

- The midwives on the postnatal ward will monitor your baby's blood glucose levels for the first 24 hours after birth

- Remember to come for your **Postnatal Glucose Tolerance Test, at least 6 weeks** after your baby is born to check that your blood glucose levels have returned to normal

Future Health

- Free annual Type 2 diabetes screening for public and private patients – ask your GP

- Continue to follow a **healthy eating diet** and **physical activity** to reduce risk of Type 2 diabetes in the future. You can find a booklet on **Diabetes Prevention** on our website

- For **future pregnancies**, you will be advised to start monitoring your blood glucose levels from your booking visit

Breastfeeding supports

- Breastfeeding is encouraged for all women and babies

- Rotunda Hospital Lactation Midwives offer a “wrap-around clinic” for anyone who experienced breastfeeding challenges before or has GDM

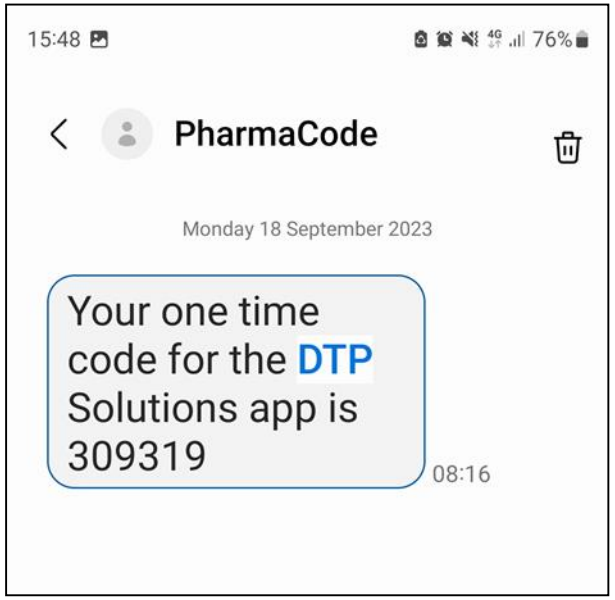
Ph: 01 -8171766 or cmtbf@rotunda.ie

Visit https://rotunda.ie/breastfeeding for more general breastfeeding information

Antenatal Expression of Colostrum is recommended -

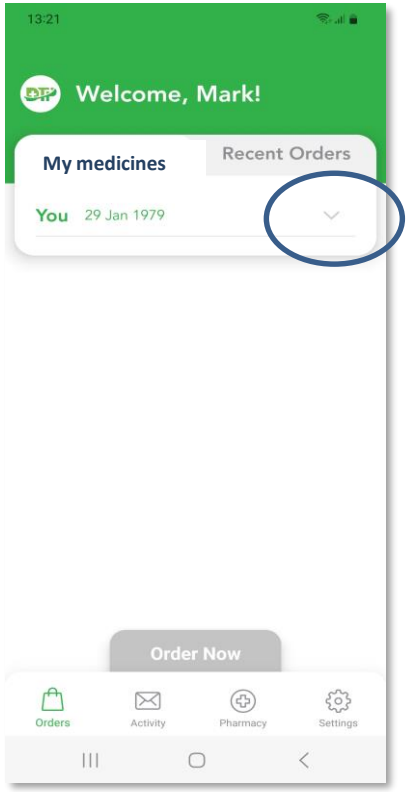
- If it is anticipated that a baby may experience difficulties with feeding
- or maintaining their blood sugar levels after birth
- expressing colostrum antenatally means that your baby will have a supply of breast milk available if required, therefore reducing the need to use infant formula

DTP Pharmacy App

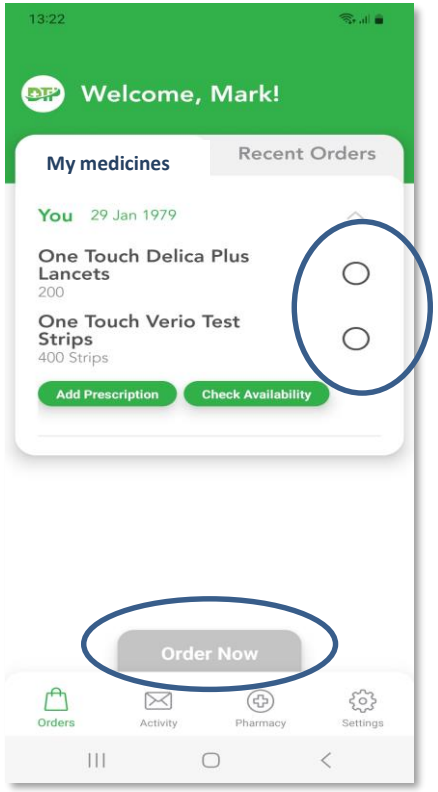


Text message from Pharmacode
The link to download the DTP app: ttps://vpod.co/dtpsolutions

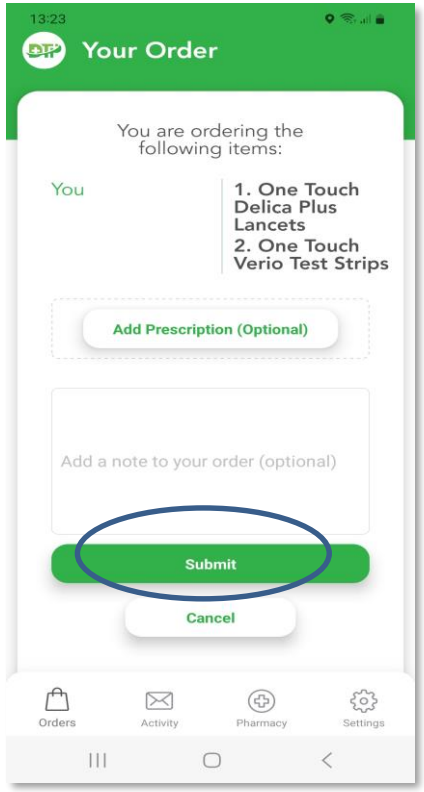
DTP Pharmacy App – ordering your supplies



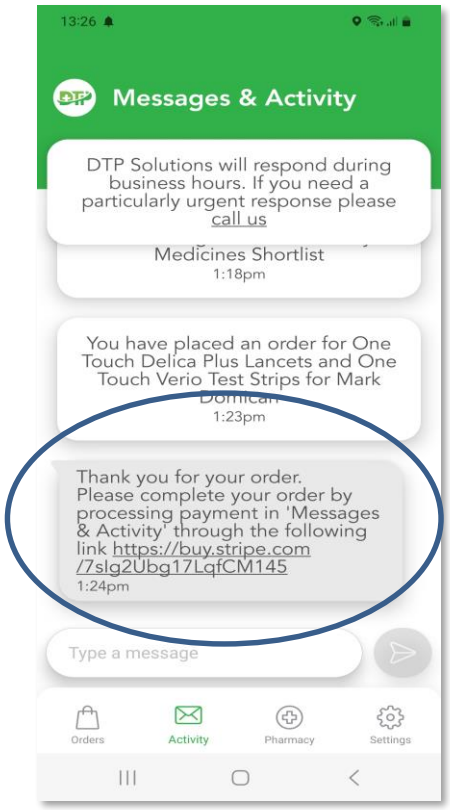
1. Intro / Welcome



2. Create Order (Glucometer + test strips +lancets)



3. Add Comments



Complete order/make payment

ONETOUCH®

When you receive your glucometer pack it contains:

- OneTouch Verio glucometer and owners booklet
- 400 test strips
- 200 lancets
- Quick Start Guide
- Guide to Checking your Blood Glucose levels
- Guide to Managing Gestational diabetes booklet
- Setting up the OneTouch Reveal mobile app

➢ **To order extra strips/needles go to DTP solutions webpage**

A look at the Quick Start Guide

- Use one lancet per day
- There are links to YouTube videos on our website demonstrating how to use your glucometer equipment
- If you are having any difficulties please let us know
- Instruction videos are available on https://rotunda.ie/diabetes/

Set date

Press (OK) if the date is correct or edit and confirm.

Set mealtime range limits

Press (OK) if the pre-set Before Meal and After Meal range limits are correct or edit and confirm.

Set Test Tracker

Press (OK) if the pre-set goal is correct or edit and confirm.

Set 90 Day Average Target

Press (OK) if the 90 Day Average Target is correct or edit and confirm.

NOTE: Talk to your healthcare professional about the right range limits, Daily Test Goal, and 90 Day Average Target for you.

2 Take a test

Wash your hands with soap and warm water, rinse and dry before sampling. Remove the lancing device cap then insert a sterile lancet. Twist the protective cover. Place the cap back onto the device.

Insert a test strip (gold side and 2 silver prongs facing you) to turn the meter on.

Adjust the depth setting on the lancing device. Cock the lancing device and hold firmly against the side of your finger. Press the release button. Gently squeeze finger to get a round drop of blood.

Apply blood sample to the channel on either side of the test strip.

Once the channel fills, it will turn red and your result will appear in about 5 seconds.

OneTouch Verio glucometer and OneTouch Reveal App

- Correctly **tag your blood glucose** levels as ‘before’ or ‘after’ meal
- If the result is higher than the target level - **‘add a note’**

Setting up your glucometer and One Touch Reveal App

Setting up your meter

- ✓ Set Language
- ✓ Select ‘no’ when asked to download One Touch Reveal app
- ✓ Set Time and date
- ✓ Pregnancy blood glucose ranges

  Before meal: 3.5-5.2

  After meal: 3.5-7.7
- ✓ Test tracker 4 per day

When you do a blood glucose test tag the result as before or after meal

Setting up your One Touch Reveal App

- ✓ Download the app (use name you are registered as in Rotunda)
- ✓ Use meter blood glucose ranges
- ✓ Tap the symbol (Android) or

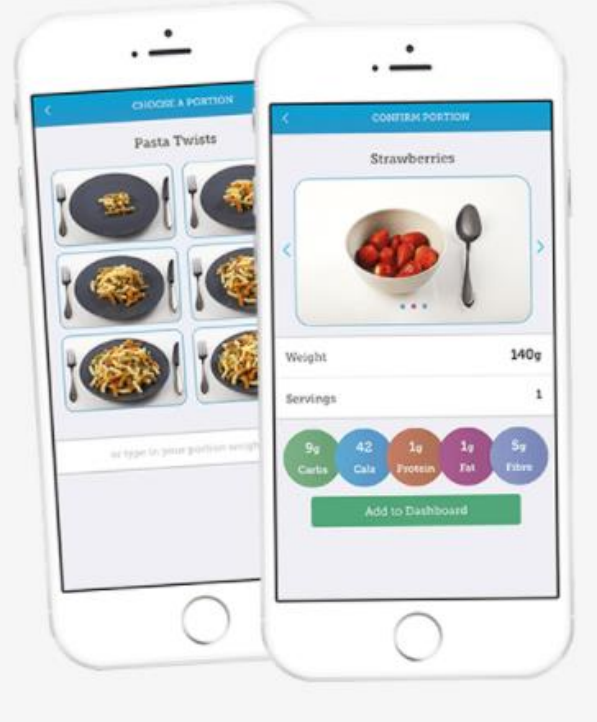
(iPhone)
  – Select ‘Connections’
- ✓ Under care team select ‘Add a clinic’
- ✓ Enter our code **JY HC EE**

Food, activity, feeling unwell, stress and vomiting can all effect glucose levels – ‘add note’ in your app

Glucometer troubleshooting

Feel free to log back into this class next week from around 10.30 if you have any problems or questions about set up and use of your glucometer.

Thank you

Credits for images: Carb and calorie counter

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