

TOP TIPS FOR OPTIMISING GLUCOSE LEVELS IN PREGNANCY

### **WELCOME**

- **1** Working to achieve the best possible glucose levels for pregnancy can feel challenging at times.
- There are certain actions that make a big difference to glucose levels and they are listed below.
- Tick off the ones you feel you are getting right so you can identify the next action to focus on.

# EATING THE RIGHT TYPE OF CARBOHYDRATE



Different carbohydrates can have very different effects on blood glucose levels after eating. Choosing the right type of carbohydrate can make all the difference to keeping the 1 hour post meal glucose below the target of 7.8mmols/l.

Carbohydrates that are unrefined, high in fibre with a low glycaemic index (below 55) create a slower and lower rise in glucose levels after eating.

The table attached lists the foods that most women find don't work well in pregnancy with better alternatives.

**ACTION DONE (TICK BOX):** 

### EATING THE RIGHT AMOUNT OF CARBOHYDRATE



It is important to eat enough carbohydrate to provide enough energy and nutrition to support a healthy pregnancy.

However too much carbohydrate makes it impossible to achieve the post meal glucose targets.

Carbohydrate is better tolerated when eaten in smaller quantities so eating small amounts at meals with carbohydrate containing snacks between can be very helpful.

You may find the carbohydrate amounts below a good place to start.

Breakfast: 15-20g carbohydrate
 Lunch and dinner: 40-60g carbohydrate
 Mid-meal snacks: 10-15g carbohydrate

**ACTION DONE (TICK BOX):** 

#### TIMING OF BOLUS INSULIN

Giving your bolus insulin ahead of eating can help limit the post meal rise in glucose levels

In early pregnancy giving insulin 10-15 minutes before and as your pregnancy progresses extending this time to 30-40 plus minutes.

**ACTION DONE (TICK BOX):** 



#### **GETTING BREAKFAST RIGHT**



Breakfast is the most challenging meal for keeping the post meal glucose in target; carbohydrate is not well tolerated at this time of day. Most women have to spread their breakfast over 2 smaller meals containing 15-20g.

#### **Good breakfast choices:**

- 1 slice whole-wheat toast (C15g) with a topping e.g. poached or scrambled eggs / mushrooms / tomato / cheese / ham / bacon / avocado.
- 1 small pot yoghurt (C13g) with one small chopped fruit or cup of berries (C7g) topped with nuts / seeds
- 25g jumbo porridge oats (C15g) soaked overnight in crème fraiche and 1 cup berries (C7g), top with nuts / seeds
- 40g jumbo porridge oats (C25g) cooked with water and single cream added to taste

**ACTION DONE (TICK BOX):** 

## BULKING UP MEALS WITH MORE PROTEIN AND VEGETABLES / SALAD



Eating more protein foods such as meat, fish, chicken, cheese, eggs, tofu, Quorn, pulses and vegetables will fill you up more and stop you feeling hungry. These foods also flatten out the post meal glucose rise and so help achieve the post meal glucose targets whilst avoiding dips in glucoses later.

**ACTION DONE (TICK BOX):** 

#### **BEING ACTIVE AFTER EATING**



Being active for 10-15 minutes after eating can make your post meal glucose level as much as 2 mmols/L lower and so help achieve the post meal glucose target.

This can be going for a walk or being active around the house or work place.

AVOID BEING INACTIVE IMMEDIATELY AFTER EATING ACTION DONE (TICK BOX):

### AVOID EATING CARBOHYDRATE LATE IN EVENING



Overnight can be as much as a third of your day so getting glucose levels as near normal pre bed and overnight can really help optimise glucose levels for pregnancy.

Eating your evening meal before 7.30 pm and keeping evening snacks to minimal carbohydrate or carbohydrate free (unless eaten to avoid a hypo) can make all the difference to achieving the pre-bed, overnight and even fasting glucose targets.

**ACTION DONE (TICK BOX):** 

#### **ACCURATE CARBOHYDRATE COUNTING**



There are a number of useful resources to help with accurate carbohydrate counting:

- Carbs & Cals book or app (Chris Cheyette & Yello Balolia, Publisher - Chello)
- DAFNE Carbohydrate Portion List
- MyFitnessPal App
- Food Labels: use the "total carbohydrate" amount when working out how much carbohydrate is in the food.
- · Restaurant's web sites: Nutritional information

**ACTION DONE (TICK BOX):** 

#### **KEEP A FOOD DIARY**



Keeping a food diary can help you learn what meals and carbohydrate choices are working well for you keeping those post meal glucoses in target. It can also help you see which choices are best avoided.

**ACTION DONE (TICK BOX):** 

#### **STAY IN TOUCH**



It can be challenging to keep up with changes in insulin requirements as your pregnancy progresses

Women who are in regular contact with the diabetes educators report better glucose levels and feel in better control.

**ACTION DONE (TICK BOX):** 

#### **SNACKS**



Snacking mid meal can be really helpful to avoid post meal hypos, help manage hunger and optimise nutrition.

Making snack choice healthy, high in fibre and avoiding refined forms of carbohydrate really helps keep glucose levels stable between meals.

Good types of carbohydrate snacks are: fruit, yogurt, whole wheat crackers & oatcakes with protein toppings. Additional lists are available from clinic.

It can feel tempting to go for sweeter more refined carbohydrates especially if trying to avoid a hypo but these foods, even if covered with insulin, make it difficult to keep the next pre meal glucose in target.

**ACTION DONE (TICK BOX):** 

### **Carbohydrate Choices**

This table lists foods that many pregnant women with diabetes have found result in glucose levels above target post-meal. The 'try instead' list suggests some alternatives that can work well.

	TRY INSTEAD (Low glycaemic index (GI))
All white breads:	High fibre breads:
loaf, rolls, pitta, naan, non-traditional baguette, croissant, chapattis, Panini, wraps.	Rye bread and sourdough bread have the lowest GI. Whole-wheat, stoneground, granary and multi-grain varieties of breads have lower GIs. Chapattis made with whole meal flour Freezing bread first can help lower the GI
White flour based foods:	Oatcakes
Cakes, biscuits, cream crackers, water biscuits, Ritz, Tuc, Yorkshire pudding, dumplings, pizza, pastry (pies, pasties, quiche, sausage rolls, spring rolls). Breaded & battered foods e.g. fish fingers, battered fish	Whole-wheat crackers & crisp-bread e.g. Ryvita, Cracker wheat. Wheatmeal Digestives, Hobnobs, Hovis biscuits (one or two)
Low fibre & sugar coated breakfast cereals:	High fibre cereals:
Cornflakes, Rice Krispies, Special K, Sugar Puffs, Cocoa Pops, sweetened muesli.	Jumbo oats Most women don't tolerate any cereal in pregnancy. You may tolerate small amounts of some high fibre cereals earlier in pregnancy (up to 20 weeks): All Bran, Bran Buds, Shredded Wheat See breakfast guidance
Rice, pasta, grains:  No types need to be avoided.	The best rice is basmati. Brown rice & whole-wheat pasta may give benefit. Cooling rice, pasta and potato after cooking and then eating cold or re-heating will lower the GI Couscous, bulgur wheat, semolina, tapioca, quinoa
Processed potato products:	Home cooked potatoes:
Oven chips, French Fries, Smiley faces, waffles, Croquettes, frozen roast potatoes, instant potato, ready meals with instant potato topping	Boiled is best Lightly mashed (non-instant) Small baked potato, Sweet potato, yam, cassava
Processed savoury snacks:	Sliced potato crisps (e.g.Walker's or Kettle crisps)
Hula Hoops, Quavers, Pringles, Monster Munch, French Fries, Skips, baked crisps	Ryvita snacks Vegetable crisps Salted or natural popcorn
Cold drinks:	Water.
Fruit juices, smoothies, full sugar squash and fizzy drinks Lucozade	Sugar free squash, sugar free carbonated drinks. DASH water. Soda water.
Sugar:	Artificial sweeteners if a variety are used and in small
Sugar, glucose, maltose, dextrose, honey, treacle and syrup	quantities Splenda, Sweetex, Hermesetas, Nutrasweet, Candarel, Stevia
Preserves/spreads:	Marmite, Vegemite, nut butters such as peanut butter
Jam, marmalade, honey, lemon curd, maple syrup, chocolate spread	

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REFINED CARBOHYDRATES TO AVOID (High glycaemic index (GI))	▼ TRY INSTEAD (Low glycaemic index (GI))
Sweets / desserts:  Melon, mango, pineapple(some people may tolerate small portions), Dried fruit Sweets, chocolates, mints Sweet puddings Tinned fruit in syrup	Fresh fruit, frozen fruit, tinned fruit in natural juice (juice drained off) Sugar free Jelly Yogurt: natural, Greek-style, Icelandic style (high protein such as Skyr), fruit yogurt (under 15g total carbohydrate per portion or pot) 70% cocoa solids chocolate Full fat ice cream (no added biscuits/caramel ripple/etc.)
Condensed, evaporated milk	Crème Fraiche, cream
Ready meals/stir in sauces/take away:  Some ready meals & sauces contain significant amounts of sugar for example sweet & sour sauces, jar or packet Chinese sauces, Chinese takeaway, tomato soup, baked beans, tinned spaghetti	Reduced sugar baked beans (drain off as much sauce as possible)
Bed-time & Malted drinks such as Ovaltine, Horlicks, drinking chocolate.	Cadbury's Highlight, Ovaltine Options, cocoa powder.



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