



2023

Gestational Diabetes Information



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The Serenity Doula, Bitesize Birth

6/14/2023

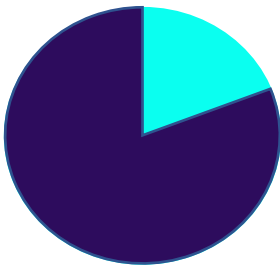
This booklet provides complementary information regarding gestational diabetes and should not be constituted as medical advice, it is for information and education purposes only. If you choose to change your diet, lifestyle or add supplements into your routine, do so in collaboration and under supervision with your medical provider.

Gestational Diabetes

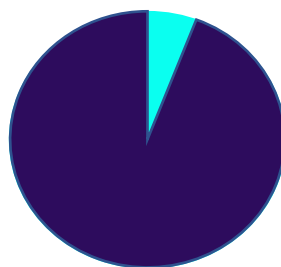


How Common is it?

- ▼ Gestational diabetes affects up to 18% of pregnancies in America and 4-5% in the UK.



America



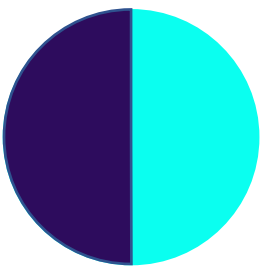
United Kingdom

What are the Risk Factors?

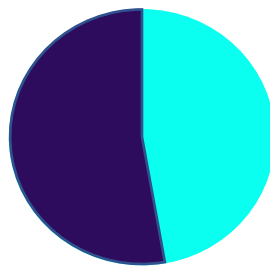
- ▼ Age 40+ if white, age 25+ if Afro-Caribbean, Black African or South Asian (Pakistani and Bangladeshi), Chinese
- ▼ If you are obese or overweight at conception
- ▼ Large abdominal circumference
- ▼ Medical history of High Blood Pressure, heart attack or stroke
- ▼ Family history of GD, prediabetes or type 2 diabetes
- ▼ Previous "large" baby ($\geq 8\text{lb } 13\text{oz}$ - 3.99kg), unexplained still-birth or malformed infant

50% of people with GD have none of these risk factors

41-53% are attributed to being overweight or obese.



50% no Risk factors



41-53% weight related

HELPFUL TIPS

Gestational Diabetes is different to Type 1 and Type 2 Diabetes. It can be diagnosed from around 20 weeks of gestation as placental hormones cause insulin resistance at this time.

High blood glucose levels influence the development of the baby so maintaining control of your blood glucose levels is really important.

Gestational Diabetes can be an indicator for other issues like pre-eclampsia and later in life type 2 diabetes and cardiovascular disease.

A diagnosis of gestational diabetes is a strong indicator that looking at your lifestyle to help prevent future issues may be something to seriously consider.

Gestational Diabetes



Complex Multi-factorial Risk Factors



- ♥ Physical - grey/green space
- ♥ Built - Available food, ability for exercise
- ♥ Environmental - NO₂, noise pollution, O₃, OM_{2,5}, SO₂
- ♥ Socioeconomic - Education, Income
- ♥ Individual - Ethnicity, genetics, prenatal exposures, lifestyle, dietary patterns, Inflammation, Adiposity,

Short Term Complications

- ♥ Maternal - Pre-eclampsia/eclampsia
- ♥ Neonatal - Macrosomia, Large for gestational age, shoulder dystocia, higher body fat - affecting epigenetics
- ♥ Birth - Potentially prolonged labour, caesarean birth, surgical complications, longer hospital stay, maternal haemorrhage, increased infection risk

Long Term Complications

- ♥ Maternal and Child - Type 2 diabetes, cardiovascular disease, metabolic syndrome, obesity

Symptoms of Gestational Diabetes

- ♥ Needing to urinate more frequently
- ♥ Feeling more tired
- ♥ Losing weight without trying
- ♥ Genital itching/thrush
- ♥ Slow wound healing, prone to infections like UTIs
- ♥ Blurred vision
- ♥ Excessive thirst

POTENTIAL EFFECTS IN PREGNANCY AND BIRTH

If glucose levels are not controlled, babies may have:

Additional fat stores

Have breathing difficulties at birth

Have increased red blood cell production - can lead to jaundice

Risk of hypoglycaemia (low blood sugar) shortly after birth - expressing colostrum and having it with you at your birth can be helpful. Some can manage to harvest colostrum and others cannot but it does not reflect your ability to breastfeed. Babies are experts and getting milk!

Gestational Diabetes



Hand Expressing Breast Milk

What is hand expression?

- Involves massaging your breasts with your hands and fingers to stimulate the release of milk.
- You can start hand expressing either before or after you have your baby. Please consult your healthcare provider if you want to hand express before your baby is born.

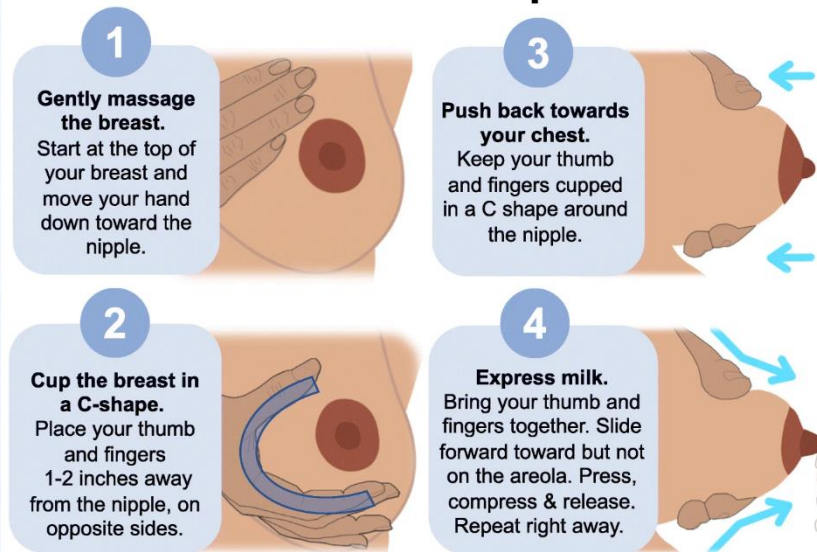
Why hand express?

- To collect colostrum before your baby is born and prepare for feedings before your milk comes in.
- To increase your supply of breast milk.
- To relieve hard (engorged) breasts.

How do I get started?

- Wash your hands before you start.
- Pick a relaxing spot, sit comfortably and try leaning forward.
- Follow the instructions in the diagram.
- It may take a few compressions before you start to see drops of milk, and the expected volume of milk may also vary.
- Shorter, frequent sessions of up to 30 minutes are the most effective.

How do I hand express?



Can I store the milk I collect?

- Collect the milk in a clean container (i.e., cup, syringe).
- Seal & label the container with the date it was expressed.
- Store in the fridge (up to 4 days) or freezer (up to 12 months).

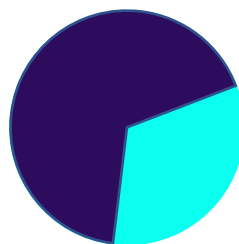


Scan for video tutorial



Treatment

- ♥ Diet and lifestyle
- ♥ Metformin
- ♥ Insulin
- ♥ In America Glyburide



1/3 require medication

DIAGNOSIS

Ideal fasting blood sugar between 4.0 and 5.5 mmol/L (in America \leq 90mg/dl) and less than 7.0mmol/L (\leq 120mg/dl) 2 hours after eating

Diagnosis if fasting blood sugar 5.6mmol/L or above or 2 hour after eating of 7.8mmol/L.

If blood glucose is consistently higher than 40mg/dl after meals the baby will be macrosomic. Blood sugar beyond 200mg/dl are particularly harmful (these are generally found in undiagnosed GD or poorly controlled type 1)

Gestational Diabetes



My Blood Sugar is Getting Higher

- ♥ Hormone levels and insulin resistance increase later in pregnancy. Try the following:
- ♥ Lower the carbohydrates in your diet
- ♥ Add more exercise into your routine - after meals can be especially helpful
- ♥ Check your meter is calibrated
- ♥ Keep a log to track patterns
- ♥ Stress or being unwell can cause spikes in blood sugar
- ♥ Sometimes medication is needed to help - IMPORTANT - this is not “failing”, it is using tools to help you and your baby be the healthiest you can be.



Do I Have to be Induced?

Just because you have been diagnosed with Gestational Diabetes does not mean that you HAVE to be induced if you do not want to (at any week of gestation).

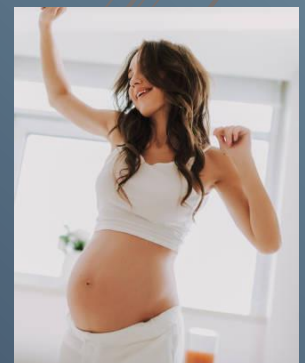
- ♥ Individual circumstances should be considered e.g. is your blood sugar under control, is your baby doing well, is your blood pressure ok - You can continue with expectant management and monitoring if you choose. Make sure you are given clear information to make your decision with pros and cons of options.

EXERCISE IDEAS

- 30 min walk after meals.
- Put on your favourite 5 songs and dance!
- Do some weightlifting at a gym or at home. There are lots of really great online videos on you tube and Instagram, find someone that resonates with you.

[Do The Serenity Birth Ball flow for movement, balance and relaxation](#)

Do the vacuuming after eating or clean the windows. It doesn't have to be exercise, just move. You can even just move your feet up and down with heel raises to work your calf muscles whilst watching tv.



Gestational Diabetes



Fasting Blood Sugar is High

- ♥ Different causes - may be high blood sugar all night, maybe a rebound reaction if blood sugar drops too low. It can also be normal to fluctuate 12-15% day to day during pregnancy so calculate an average.
- ♥ Make sure to check fasting sugar FIRST thing in the morning when you wake up. More than 30 mins awake and it may go up to fuel you for the day. Keep your meter by the bed (remember to wash your hands before checking)
- ♥ Use a food and blood sugar log to track what may be causing. What time did you have dinner? Bed time snack? (Your baby is taking energy 24/7). Have a snack within an hour of going to bed with fat and protein e.g. nuts, cheeses, meat, eggs, Greek yogurt (full fat). Try not to leave more than 10 hours between this and breakfast.
- ♥ If you are having a large late meal, it could be too high in carbs and blood sugar high all night. No more than 30g carbs at meals, have a snack if needed.
- ♥ Exercise can help. Are you getting 30mins of something fun in each day?
- ♥ If the above don't help, medication or altering your dose of medication may be needed.

From the HAPO study – chance of having a “large baby” only 10% if fasting blood sugar kept at 5.0mmol/L (90mg/dl) average or less, 17% if 5.25mmol/L (95mg/dl) and 25-35% if at around 5.5mmol/L (100mg/dl).



Nutrients

Macro Nutrients - Carbohydrates, Fats and Proteins.

Only Carbohydrates raise blood sugar levels quickly.

Try to make your meals and snacks mainly protein and green leafy vegetable based with good fats.

If you feel the need for something sweet, have it after a meal and this will reduce the blood sugar spike.

Gestational Diabetes



low-carb veg

carbs per 100g

olives 0	cucumber 2	okra 3	green beans 4
mushrooms 0	avocado 2	leek 3	cabbage 4
celery 1	pak choi 2	tomato 3	sweetheart cabbage 4.4
lettuce 1	aubergine 2	green pepper 3	swede 5
kale 1	radishes 2	runner beans 3	turnips 5
red chillies 1	asparagus 2	brussel sprouts 4	yellow pepper 5
spinach 2	tenderstem broccoli 2	cherry tomatoes 4	pickled onions 5
broccoli 2	celeriac 3	mangetout 4	
courgette 2	cauliflower 3	edamame beans 4	



medium to high-carb veg

carbs per 100g

broad beans 6	butternut squash 8	beetroot 10	garlic 16
red pepper 6	carrot 8	corn on the cob 10	chickpeas 16
baby corn 6.4	onion 8	parsnip 12	lentils 17
root ginger 7	peas 10	loose sweetcorn 14	potato 17
		new potatoes 16	sweet potato 21



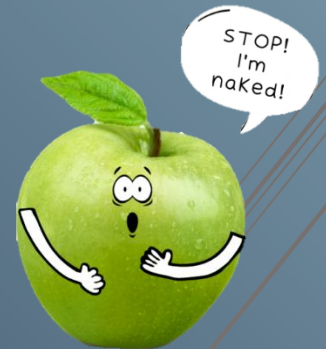
AVOID NAKED CARBS

Pair carbs with fat and protein as this slows down their absorption.

e.g. apple with peanut butter

Slice of toast with butter and 2 eggs

Dark chocolate with a handful of nuts



Gestational Diabetes



Low Glycaemic Options

Food	Better Option (Lower impact on Blood Glucose)
Bread	Burgen, soya & linseed, multigrain, rye, pumpernickel, Hi-Lo wholemeal sandwich things, Lidl low GI bread
Crackers	Oatcakes, Ryvita, whole wheat crackers & wholegrain crispbreads
Potatoes	New potatoes, sweet potatoes small or half a jacket potato and mash may be tolerable but they must be paired with protein & natural fats – add cheese, butter and cream
Pasta & noodles	Wholewheat pasta and noodles cooked until al dente
Rice	Basmati or wholegrain rice
Grains	Quinoa, wholegrain couscous
Breakfast Cereals	Pinhead porridge oats
Fruit	Tart/sharp berries, granny smith apples, kiwi, small sharp citrus fruits
Fruit juices and carbonated drinks	Water or fizzy water with added cucumber slices, lemon, grapefruit, mintetc. Herbal tea, raspberry leaf tea
Sugars, syrups/honey	Stevia
Cakes, biscuits, pastries	Nairns oat biscuits, hobnobs, digestives, rich tea
Jams and preserves	Peanut butter, marmite, cheese spread
Desserts	Sugar free or no added sugar jelly, no added sugar angel delight
Sweets and chocolate	Dark chocolate, ½ kinder bueno, cadbury's freddo, treat size chocolate buttons
Milk	Whole fat dairy milk, unsweetened soy, almond, coconut, lacto free
Yoghurt	Coconut milk yoghurt, full fat Greek yoghurt, soy yoghurt

GLYCAEMIC INDEX

Different carbs have different effects on blood glucose levels. The Glycaemic index is a system of ranking of how quickly food make blood glucose spike after eating.

Low GI foods are better to consume to keep spikes to a minimum.

The following meal plans were inspired by and adapted from Real Food for Gestational Diabetes by Dr Lily Nichols. Her books are available on Amazon and are excellent and go into great depths of information.

Gestational Diabetes



Meal Plan Idea Day 1

Meal	90g Carbs	123g Carbs	150g Carbs
Breakfast	1 cup/230g Greek yoghurt (full fat) 50g raspberries/blueberries 10 macadamia nuts or almonds Vanilla extract (optional to taste) (16g net carbs)	1 cup/230g Greek yoghurt (full fat) 50g raspberries/blueberries 10 macadamia nuts or almonds Vanilla extract (optional to taste) (16g net carbs)	1 cup/230g Greek yoghurt (full fat) 75g raspberries/blueberries 10 macadamia nuts or almonds Vanilla extract (optional to taste) (16g net carbs)
Lunch	Side salad with vinegar dressing to start 1 cup bean less beef chili Sour cream Salsa Spring onions ½ avocado Fresh lime (14g net carbs)	Side salad with vinegar dressing to start 1 cup bean less beef chili Sour cream Salsa Spring onions ½ avocado Fresh lime (14g net carbs)	Side salad with vinegar dressing to start 1 cup bean less beef chili ½ cup black beans Sour cream Salsa Spring onions ½ avocado Fresh lime (28g net carbs)
Dinner	85g salmon salad in romaine lettuce wraps Side salad and vinegarette dressing Small handful sliced almonds (18g net carbs)	85g salmon salad in romaine lettuce wraps Side salad and vinegarette dressing Small handful sliced almonds ½ cup fresh pineapple (28g net carbs)	85g salmon salad in romaine lettuce wraps Side salad and vinegarette dressing Small handful sliced almonds ½ cup fresh pineapple (28g net carbs)
Snacks	Olives, cherry tomatoes and mozzarella cheese Guacamole and sliced veggies e.g. green beans, celery, asparagus, cucumber, mangetout, green or yellow peppers, radishes Hard boiled egg (0-10g net carbs each)	Olives, cherry tomatoes and mozzarella cheese Guacamole and sliced veg 1oz organic corn chips Hard boiled egg - 1 slice sprouted grain bread and butter (5-18g net carbs each)	Olives, cherry tomatoes and mozzarella cheese Guacamole and sliced veg 1oz organic corn chips Hard boiled egg - 1 slice sprouted grain bread and butter (5-18 g net carbs)
Dessert (Optional)	Homemade berry frozen yog (10g net carbs)	Homemade berry frozen yog (10g net carbs)	Homemade berry frozen yog (10g net carbs)

EXCELLENT PODCASTS

THE MIDWIVES' CAULDRON:

Birth physiology with Dr Sarah Buckley
<https://podcasts.apple.com/gb/podcast/the-midwives-cauldron/id152317857?i=1000550404117>

Real food for pregnancy Dr Lily Nichols

<https://podcasts.apple.com/gb/podcast/the-midwives-cauldron/id152317857?i=1000548443788>

Gestational diabetes the pregnancy perspective:

<https://podcasts.apple.com/gb/podcast/the-midwives-cauldron/id152317857?i=1000527077230>

Gestational diabetes the baby's perspective:

<https://podcasts.apple.com/gb/podcast/the-midwives-cauldron/id152317857?i=1000527077230>

Gestational Diabetes



Meal Plan Idea Day 2

Meal	90g Carbs	123g Carbs	150g Carbs
Breakfast	2 eggs 1-2 tbsp butter 1 cup sauteed kale ½ cup sliced tomatoes Crushed black pepper to taste (8g net carbs)	2 eggs 1-2 tbsp butter 1 up sauteed kale ½ cup sliced tomatoes 1 slice sprouted grain toast or ½ cup cooked sweet potato (23g net carbs)	2 eggs 1-2 tbsp butter 1 up sauteed kale ½ cup sliced tomatoes 1 slice sprouted grain toast or ½ cup cooked sweet potato (23g net carbs)
Lunch	Green salad (3+ cups) 2 tbsp oil & vinegar dressing ½ avocado ½ cup sliced vegetables 3oz chicken, salmon, mackerel or sardines (15g net carbs)	Green salad (3+ cups) 2 tbsp oil & vinegar dressing ½ avocado ½ cup sliced vegetables 3oz chicken or salmon, mackerel or sardines ½ cup roasted beets ½ cup blueberries (31g net carbs)	Green salad (3+ cups) 2 tbsp oil & vinegar dressing ½ avocado ½ cup sliced vegetables 3oz chicken or salmon, mackerel or sardines ½ cup roasted beets ½ cup butternut squash ½ cup blueberries (43g net carbs)
Dinner	Roasted Cauliflower with Chimichurri sauce, tahini and garlic Greek yoghurt Add a side salad or green veg with butter/coconut oil (30g net carbs)	Roasted Cauliflower with Chimichurri sauce, tahini and garlic Greek yoghurt Add a side salad or green veg with butter/coconut oil (30g net carbs)	Roasted Cauliflower with Chimichurri sauce, tahini and garlic Greek yoghurt Add a side salad or green veg with butter/coconut oil (30g net carbs)
Snacks	Small handful of almonds ½ peach or nectarine 55g cheese ½ cup plain Greek yoghurt + vanilla extract (optional) + ½ cup strawberries (0-10g net carbs each)	Small handful of almonds 1 peach or nectarine 55g cheese + 6 whole grain crackers ½ cup plain Greek yoghurt + vanilla extract (optional) + ½ cup strawberries (8-20g net carbs each)	Small handful of almonds 1 peach or nectarine 55g cheese + 6-10 whole grain crackers ½ cup plain Greek yoghurt + vanilla extract (optional) + ½ cup strawberries (12-22 g net carbs)
Dessert (Optional)	28g dark chocolate (75% or more cocoa) with nuts or homemade chocolate brittle (5g net carbs)	28g chocolate (75% or more cocoa) with nuts or homemade chocolate brittle (5g net carbs)	28g dark chocolate (75% or more cocoa) with nuts or homemade chocolate brittle (5g net carbs)

EXCELLENT PODCASTS:

Feel Better podcast with Dr Rangan Chatterjee and the glucose goddess:

<https://podcasts.apple.com/gb/podcast/feel-better-live-more-with-dr-rangan-chatterjee/id1333552422?i=1000611491509>

Gestational Diabetes



Meal Plan Idea Day 3

Meal	90g Carbs	123g Carbs	150g Carbs
Breakfast	Crustless spinach quiche muffins 1-2 breakfast sausages Grated parmesan cheese	Crustless spinach quiche muffins 1-2 breakfast sausages Grated parmesan cheese	Crustless spinach quiche muffins 1-2 breakfast sausages Grated parmesan cheese
Lunch	2 cups homemade chicken + vegetable soup Side salad Shredded cheese (20g net carbs)	2 cups homemade chicken + vegetable soup ½ cup cooked lentils mixed into soup Side salad Shredded cheese (32g net carbs)	2 cups homemade chicken + vegetable soup ¾ cup cooked lentils mixed into soup Side salad Shredded cheese (40g net carbs)
Dinner	3-4oz grass fed beef meatloaf or burger patty, etc Bed of mashed cauliflower with horseradish and roasted long stem broccoli ½ cup sauteed spinach 1 tbsp butter (22g net carbs)	3-4oz grass fed beef meatloaf or burger patty, etc Roasted celery, carrots & onions Bed of mashed cauliflower with horseradish and roasted long stem broccoli ½ cup sweet potato fries (36g net carbs)	3-4oz grass fed beef meatloaf or burger patty, etc Bed of mashed cauliflower with horseradish and roasted long stem broccoli ½ cup sweet potato fries 1 tbsp ketchup (41g net carbs)
Snacks	Celery, cucumber, courgette + ½ cup hummus 1 small apple + nut butter e.g. peanut or almond Beef or turkey jerky (5-16g net carbs each)	Celery, cucumber, courgette, carrots + ½ cup hummus 1 medium apple + nut butter e.g. peanut or almond Beef or turkey jerky (5-20g net carbs each)	Celery, cucumber, courgette, carrots + ½ cup hummus 1 medium apple + nut butter e.g. peanut or almond Beef or turkey jerky (5-20g net carbs each)
Dessert (Optional)	½ cup raspberries + homemade whipped cream Or full fat Greek yoghurt (5g net carbs)	½ cup raspberries + ½ fresh peach + homemade whipped cream or full fat Greek yoghurt (14g net carbs)	½ cup raspberries + ½ fresh peach + homemade whipped cream or full fat Greek yogurt (14g net carbs)

HELPFUL BOOKS FOR FURTHER READING:

Glucose Revolution by Jessie Inchauspé

The Glucose Goddess Method by Jessie Inchauspé

Real food for Pregnancy by Lily Nichols

Real food for gestational diabetes by Lily Nichols

In Your Own Time by Dr Sara Wickham

Gestational Diabetes



Meal Plan Idea Day 4

Meal	90g Carbs	123g Carbs	150g Carbs
Breakfast	<p>2 egg omelette with feta and roasted tomatoes</p> <p>Delicious with a side of sauteed spinach (coconut oil or butter)</p> <p>(18g net carbs)</p>	<p>2 egg omelette with feta and roasted tomatoes</p> <p>Delicious with a side of sauteed spinach (coconut oil or butter)</p> <p>(18g net carbs)</p>	<p>2 egg omelette with feta and roasted tomatoes</p> <p>Delicious with a side of sauteed spinach (coconut oil or butter)</p> <p>(18g net carbs)</p>
Lunch	<p>1 cup spaghetti squash/courgette</p> <p>½ cup tomato-cream sauce</p> <p>3 grassfed beef meatballs</p> <p>½ cup cooked broccoli</p> <p>Fresh basil</p> <p>Parmesan cheese</p> <p>(28g net carbs)</p>	<p>1 cup spaghetti squash/courgette</p> <p>½ cup tomato-cream sauce</p> <p>3 grassfed beef meatballs</p> <p>½ cup cooked broccoli</p> <p>Fresh basil</p> <p>Parmesan cheese</p> <p>1 slice wholegrain garlic bread</p> <p>(43g net carbs)</p>	<p>1 cup spaghetti squash/courgette</p> <p>½ cup tomato-cream sauce</p> <p>3 grassfed beef meatballs</p> <p>½ cup cooked broccoli</p> <p>Fresh basil</p> <p>Parmesan cheese</p> <p>1 slice wholegrain garlic bread</p> <p>(43g net carbs)</p>
Dinner	<p>4oz coconut chicken curry</p> <p>½ cup roasted curried cauliflower</p> <p>½ cup sauteed spinach</p> <p>1 tbsp butter</p> <p>(25g net carbs)</p>	<p>4oz coconut chicken curry</p> <p>½ cup roasted curried cauliflower</p> <p>½ cup sauteed spinach</p> <p>1 tbsp butter</p> <p>½ cup cooked potatoes</p> <p>(40g net carbs)</p>	<p>4oz coconut chicken curry</p> <p>½ cup roasted curried cauliflower</p> <p>½ cup sauteed spinach</p> <p>1 tbsp butter</p> <p>½ cup cooked potatoes</p> <p>(40g net carbs)</p>
Snacks	<p>Sliced bell peppers, snap peas + ¼ cup dour cream dip</p> <p>Sardines in olive oil + celery</p> <p>Nutty granola bar</p> <p>(5-18g net carbs)</p>	<p>Sliced bell peppers, snap peas + ¼ cup dour cream dip</p> <p>Sardines in olive oil + celery, 6 brown rice crackers</p> <p>Nutty granola bar</p> <p>(5-18g net carbs)</p>	<p>Sliced bell peppers, snap peas + ¼ cup dour cream dip</p> <p>Sardines in olive oil + celery, 6 brown rice crackers</p> <p>Nutty granola bar</p> <p>(5-18g net carbs)</p>
Dessert (Optional)	<p>1 dark chocolate peanut butter cup</p> <p>(9g net carbs)</p>	<p>1 dark chocolate peanut butter cup</p> <p>(9g net carbs)</p>	<p>1 dark chocolate peanut butter cup</p> <p>(9g net carbs)</p>

HELPFUL TIPS FOR BALANCING GLUCOSE:

1. Eat a savoury breakfast
2. Have veggies (high fibre content) first before protein, then fat then starch/carbohydrates
3. Have a veggie starter (e.g. salad with vinegar dressing)
4. Have 1 tbsp vinegar at or before a meal every day
5. Move after you eat
6. Have a dessert if you need something sweet rather than a stand alone sweet snack
7. Make sure your carbs aren't naked to slow the glucose spike e.g. Greek yoghurt with your brownie.

Gestational Diabetes



Meal Plan Idea Day 5

Meal	90g Carbs	123g Carbs	150g Carbs
Breakfast	<p>¾ cup grain-free granola 1 cup unsweetened almond milk or full fat Greek yoghurt</p> <p>(19g net carbs)</p>	<p>¾ cup grain-free granola 1 cup unsweetened almond milk or full fat Greek yoghurt</p> <p>(19g net carbs)</p>	<p>¾ cup grain-free granola 1 cup unsweetened almond milk or full fat Greek yoghurt ½ cup strawberries</p> <p>(19g net carbs)</p>
Lunch	<p>Caprese salad: 2 cups fresh spinach, sliced mozzarella, tomatoes, cucumber, basil 2tbsp olive oil + balsamic vinegar dressing</p> <p>(24g net carbs)</p>	<p>Caprese salad: 2 cups fresh spinach, sliced mozzarella, tomatoes, cucumber, basil 2tbsp olive oil + balsamic vinegar dressing ½ cup homemade croutons (use wholegrain bread)</p> <p>(36g net carbs)</p>	<p>Caprese salad: 2 cups fresh spinach, sliced mozzarella, tomatoes, cucumber, basil 2tbsp olive oil + balsamic vinegar dressing ¾ cup homemade croutons (use wholegrain bread)</p> <p>(42g net carbs)</p>
Dinner	<p>4oz Cauli Shepherd Pie ½ cup roasted broccoli 1 tbsp butter</p> <p>(25g net carbs)</p>	<p>4oz Cauli Shepherd Pie ½ cup roasted broccoli 1 tbsp butter ½ cup mashed sweet potatoes</p> <p>(40g net carbs)</p>	<p>4oz Cauli Shepherd Pie ½ cup roasted broccoli 1 tbsp butter ½ cup mashed sweet potatoes</p> <p>(40g net carbs)</p>
Snacks	<p>Small handful cashews + ½ cup blackberries</p> <p>Celery + organic peanut butter</p> <p>½ cup sweet potato fries + 1oz grilled chicken</p> <p>(5-16g net carbs each)</p>	<p>Small handful cashews + ½ cup blackberries</p> <p>Celery + organic peanut butter</p> <p>½ cup sweet potato fries + 1oz grilled chicken</p> <p>(5-16g net carbs each)</p>	<p>Small handful cashews + ½ cup blackberries</p> <p>Celery + organic peanut butter</p> <p>½ cup sweet potato fries + 1oz grilled chicken</p> <p>(5-16g net carbs each)</p>
Dessert (Optional)	<p>2 coconut macaroons</p> <p>(15g net carbs)</p>	<p>2 coconut macaroons</p> <p>(15g net carbs)</p>	<p>2 coconut macaroons</p> <p>(15g net carbs)</p>

Gestational Diabetes



Bean-less Beef Chili Recipe

Makes 6 servings

Can be stored in the fridge for a few days or frozen for future.

Serve with guacamole, salsa, sour cream, spring onions, lime and fresh coriander

- ♥ 1 dried chipotle pepper (stem removed, soaked in boiling water until softened around 10 mins, then mince
- ♥ 1 cup boiling water
- ♥ 1 ½ tsp coconut oil
- ♥ 1 cup chopped white onion
- ♥ 1 cup chopped green pepper
- ♥ 1 cup chopped red pepper
- ♥ 4 garlic cloves minced
- ♥ 450g grass fed ground beef mince
- ♥ 225g ground pork sausage (spiced)
- ♥ 1 tbsp chilli powder
- ♥ 1 tbsp ground cumin
- ♥ 1 tsp ground turmeric
- ♥ 1 tsp dried oregano
- ♥ 1 tsp unsweetened cacao (optional)
- ♥ 1 tsp paprika (smoked is delicious)
- ♥ 1 stp Worcestershire sauce
- ♥ Salt and pepper to taste

- ♥ Melt the coconut oil in a large pot over medium heat
- ♥ Add onion to the pan and cook until tender 5-10 mins and then add the peppers
- ♥ Stir in the garlic, minced chipotle and cook until fragrant 1-2 mins
- ♥ Crumble beef and sausage mince to the pan. Stir well and cook until browned 10-12 mins
- ♥ Add the remaining ingredients, stir to combine, bring to the boil and reduce to a low simmer until the flavours develop (at least 10 mins)



Gestational Diabetes



Salmon Salad Recipe

Makes 3 servings

Can be stored in the fridge for a few days

Serve with side salad, green leafy veg with butter or coconut oil and a drizzle of lemon juice. Can serve in lettuce wraps

- ♥ 425g wild salmon (de skinned and boned)
 - ♥ 1 cup celery diced finely
 - ♥ ¼ cup finely diced red onion
 - ♥ 1 tbsp fresh dill
 - ♥ 1 tbsp capers, drained
 - ♥ 1 tbsp apple cider vinegar (raw)
 - ♥ 1 tbsp extra virgin olive oil
 - ♥ Salt and pepper to taste
- ♥ Mix all of the ingredients in a medium bowl. Best served cold or at room temperature



Gestational Diabetes



Roasted Cauliflower with Garlic Yoghurt, Tahini and Chimichurri

Makes 1 Head with sauce to spare

Can be stored in the fridge for a few days

Serve with side salad, green leafy veg with butter or coconut oil, Chicken breast, oily fish

- ♥ 1 medium sized cauliflower - Remove thick outer leaves but more delicate ones can remain
- ♥ 2 tbsp olive oil
- ♥ Maldon sea salt to taste
- ♥ Garlic Yoghurt
 - ♥ 4 heaped tablespoons Greek yoghurt
 - ♥ 1 clove garlic crushed
 - ♥ ¼ lemon juiced

2 tbsp tahini to serve

- ♥ Preheat oven to 200° c
- ♥ Fill a large pot with water, season with salt and bring to the boil. Place the cauliflower in, cover and cook for 6-8 minutes depending on size. Check with a knife, remove and place on a sheet tray to steam dry for 10 mins
- ♥ Cover with extra virgin olive oil and season with sea salt, return to the oven and roast for 45 minutes until charred and golden all over
- ♥ Remove from the oven
- ♥ Spoon garlic yoghurt onto a serving plate, pop the cauliflower on top and drizzle with tahini and chimichurri



For the Chimichurri (won't need all for 1 serving - keeps well in the fridge for up to 2 weeks)

- ♥ Finely diced shallot
- ♥ 1 diced red chilli
- ♥ 3-4 dice garlic cloves
- ♥ ½ cup red wine vinegar
- ♥ 1 tsp red pepper flakes
- ♥ Salt to taste
- ♥ ½ cup finely chopped coriander
- ♥ 2 cups finely chopped parsley
- ♥ ¾ cup extra virgin olive oil

Gestational Diabetes



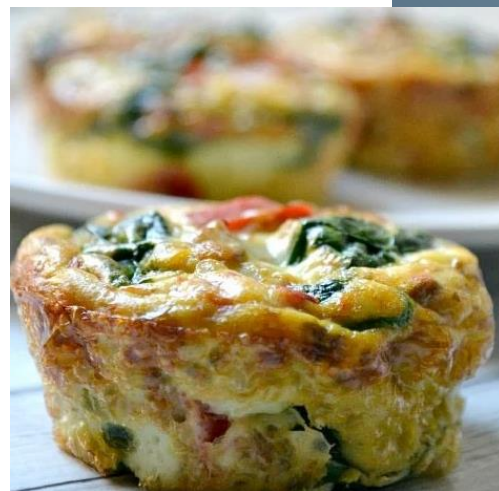
Spinach Quiche Muffins

Makes 12 servings (66Kcal)

- ♥ 1 tbsp coconut oil
- ♥ 2 cups fresh baby spinach
- ♥ 7 eggs
- ♥ 8oz mushrooms diced small or sliced
- ♥ ¼ cup shredded cheese or feta
- ♥ Season to taste
- ♥ Preheat oven to 190° c
- ♥ Heat the coconut oil in a large pan
- ♥ Fry the mushrooms, (onions, peppers etc if using)
- ♥ Then add the spinach and cook until tender (1-2 mins)
- ♥ Drain the excess liquid well (can pat with kitchen towel to help)
- ♥ In a mixing bowl, whisk the eggs until well combined then add the cooked items, and cheese if using, mix to combine.
- ♥ Divide evenly between muffin tin
- ♥ Bake for 20-25 mins until an inserted knife comes out clean
- ♥ Can be refrigerated or frozen and reheated in a microwave

OPTIONAL INGREDIENTS

- ♥ ¼ cup Green pepper
- ♥ ¼ cup finely diced onion or spring onion
- ♥ Asparagus, broccoli, other veg
- ♥ Sausage, bacon, chicken
- ♥ Herbs like thyme for different taste



Gestational Diabetes



Homemade Chicken and Vegetable Soup

Makes 4 servings

- 1 onion chopped
- 3 large carrots chopped
- 4 stalks celery chopped
- 2 tbsp butter
- ½ cup double cream
- 1 tbsp lemon juice

- ♥ Salt and pepper to taste
- ♥ Your favourite herbs e.g. thyme, parsley, more green veg like broccoli/spinach
- ♥ 4 cups homemade chicken stock
- ♥ 1 lb chicken meat picked from a roast chicken (or precooked chicken thighs)

- ♥ In a large pot over medium to high heat, cook all vegetables with the butter and seasoning until lightly browned and fragrant
- ♥ Add the chicken stock and bring to the boil
- ♥ Add the chicken meat, double cream, lemon juice and reduce the heat and simmer for 5 mins
- ♥ Further season to taste if needed



HOMEMADE CHICKEN STOCK/BONE BROTH

- ♥ Make with a whole chicken or leftovers including skin from a roast. Or 2-3lbs of bony parts e.g. neck, back, wings, feet. Ideally from organic, free range, pastured animals.
- ♥ 2 tbsp vinegar or lemon juice (helps leech minerals from the bones)
- ♥ 1 large onion
- ♥ 2-4 whole carrots 2-4 celery stalks with leaves (heart of the celery is good)
- ♥ Black peppercorns
- ♥ Vegetable scraps and peeling
- ♥ Cover with cold, filtered water

Cook in a slow cooker or large pot. Bring to a simmer and cook on low for around 24 hours.

Skim off any foam from the top and discard.

Stock should be golden. Refrigerate for up to 3 days or freeze. Use for soup, gravy, to drink.

Gestational Diabetes



Meatloaf or Burger Patties

Makes 4 servings

Serve on cauliflower mash with roasted long stem broccoli

- 1 onion finely dices
- 8 oz mushrooms finely diced
- 2 cloves garlic, minced
- 2 tbsp coconut oil
- 1 small courgette, grated
- 2 lbs grass fed ground beef
- 6oz grass-fed beef liver, ground or finely chopped
- 2 eggs (pasture fed chickens)
- ¼ cup almond or coconut flour
- Salt and pepper to taste
- 1 tsp dried oregano/mixed herbs
- 1 tsp dried thyme

- ♥ In a large pan, over a medium high heat, melt the coconut oil and cook the onion, then add and cook mushrooms and garlic until lightly browned and all water released from the vegetables has evaporated. Set aside to cool
- ♥ In a large mixing bowl, mix the meat, cooked vegetables and all remaining ingredients.
- ♥ Form into a loaf shape 9x13 inch baking dish or into burger patties
- ♥ Bake in the oven at 180°c for 45-60 mins (less time for patties as they are thinner), until cooked through.



IF MAKING MEATLOAF, CAN INCLUDE THIS TOPPING

- ♥ 6 ounces tomato paste
- ♥ 1 tbsp maple syrup or honey
- ♥ 1 tsp soy sauce

Spoon topping over the meatloaf before cooking.

Gestational Diabetes



Meatballs with Courgette Spaghetti and Tomato Cream Sauce

Makes 4 servings

Serve with Parmesan if desired

- ♥ 1 onion finely diced
- ♥ 8 oz mushrooms finely diced
- ♥ 2 cloves garlic, minced
- ♥ 2 tbsp coconut oil
- ♥ 1 lb grass fed ground beef
- ♥ 3oz grass-fed beef liver, ground or finely chopped
- ♥ 1 egg (pasture fed chickens)
- ♥ Salt and pepper to taste
- ♥ ½ tsp dried oregano
- ♥ 1 – 2 large courgettes, spiralised

- ♥ In a large pan, over a medium high heat, melt the coconut oil and cook the onion, then add and cook mushrooms and garlic until lightly browned and all water released from the vegetables has evaporated. Set aside to cool
- ♥ In a large mixing bowl, mix the meat, cooked vegetables and all remaining ingredients.
- ♥ Form into 12 meatballs and place with plenty of space between on a lined baking sheet
- ♥ Bake at 180° c for 15-20 minutes until golden and cooked through



TOMATO CREAM SAUCE

- ♥ 2 Tbsp butter
- ♥ 2tbsp extra virgin olive oil
- ♥ 1 medium onion chopped
- ♥ Salt and pepper to taste
- ♥ 1tsp oregano
- ♥ 3 cloves garlic minced
- ♥ 28oz canned chopped tomato
- ♥ 1 cup double cream
- ♥ ½ cup fresh basil shredded

Heat the butter and oil in a pan and cook onions, salt, pepper, oregano for 5 mins. Add the garlic and cook but do not allow to catch. Add tomatoes and reduce to a low heat and cook until acidity has reduced and colour rich and dark. Remove from the heat and stir in the cream Add the basil and serve over meatballs and courgette spaghetti

Gestational Diabetes



Chicken Coconut Curry

Makes 8 servings

Serve with Roasted Cauliflower or Spiced Cauliflower "Rice"

- ♥ 1 onion finely diced
 - ♥ 1 cup fresh green beans
 - ♥ 1 green pepper in small pieces
 - ♥ 2 gloves garlic minced
 - ♥ 2 tbsp freshly grated ginger
 - ♥ 1 tbsp coconut oil
 - ♥ 2 tbsp curry powder of choice
 - ♥ Salt to taste
 - ♥ Tin full fat coconut milk
 - ♥ 16oz chicken broth (homemade if possible)
 - ♥ 16 oz shredded cooked chicken
 - ♥ Handful fresh or frozen spinach
 - ♥ Lime juice to taste
 - ♥ Fresh chilli to taste
 - ♥ Nigella seeds
- ♥ In a pot over medium-high heat, cook onion in coconut oil until lightly browned with the ginger, curry powder and salt, add garlic when onion is done
 - ♥ Add coconut milk, chicken and chicken stock
 - ♥ Simmer for 10mins or more to develop flavours
 - ♥ Add lime, chilli etc to taste
 - ♥ Add fresh spinach just before serving or frozen just before serving allowing to thaw and integrate fully



CAULIFLOWER RICE

- ♥ 1 medium head cauliflower
- ♥ 1 tsp olive oil
- ♥ ½ cup chopped spring onion (optional)
- ♥ Salt and black pepper to taste
- ♥ Optional turmeric, cumin/coriander seed/nigella seed, cardamom pods

Make sure cauliflower is fully dry. Pulse in a food processor until textured like rice.

Work in batches as necessary and don't over pulse or it will become mushy.

Lightly fry in a pan over medium heat adding spices and seasoning as desired.

Lime juice helps to reduce bitterness in cauliflower

Gestational Diabetes



Cauli Shepherd's Pie

Makes 6 servings

Serve with roasted broccoli

- ♥ 1lb grass fed ground beef
- ♥ 3 oz grass fed beef liver finely chopped or ground
- ♥ 1 small onion finely diced
- ♥ 3 carrots finely diced
- ♥ 2 stalks celery finely diced
- ♥ 2-3 cloves of garlic minced
- ♥ 2 tbsp butter
- ♥ Salt and pepper to taste
- ♥ 2 tsp dried thyme

Cauliflower Topping

- ♥ 1 large head cauliflower chopped
- ♥ 4 tbsp butter
- ♥ Salt and black pepper to taste



- ♥ Steam cauliflower for around 16 mins and then blitz with a handheld blender until smooth
- ♥ In a large pan, crumble in and then brown the beef (with a little oil if needed)
- ♥ Then add the liver and cook for 1-2mins.
- ♥ Place in a 9x13 inch baking dish
- ♥ In the same pan, cook the butter, onion, carrot, celery, garlic and season to taste along with thyme
- ♥ Cook for around 10 mins and then scrape all from the pan to add in with the beef.
- ♥ Spread the mashed cauliflower onto the beef and bake in the oven at 190-200°c for 20 mins until cauliflower is lightly browned (can top with sprinkled cheese if desired)

Gestational Diabetes



Berry Frozen Yog

Makes 2 servings

- ♥ 100g frozen berries (raspberries, blueberries, black berries)
- ♥ 4 tbsp (heaped) full fat Greek yoghurt
- ♥ 1 scoop unsweetened protein powder/vanilla protein powder
- ♥ 1 tbsp tahini (optional)



- ♥ Freeze the yoghurt in a tub for 3-4 hours until frozen/semi-frozen
- ♥ Puree ingredients using a hand blender and serve immediately. Nice with fresh mint and lime zest on top, you can refreeze the other serving and re-blend if needed when serving. Have as a pudding.



Coconut Macaroons

Makes 36 Macaroons

- ♥ 5 egg whites
- ♥ ¼ tsp salt
- ♥ 1/3 cup honey
- ♥ 1 tbsp vanilla/almond extract
- ♥ 3 cups shredded coconut (unsweetened)

- ♥ In a clean bowl whisk egg whites until stiff peaks.
- ♥ Fold in remaining ingredients
- ♥ Scoop 1 tbsp portions, drop onto baking paper on a tray
- ♥ Bake at 150°C for 15-25 mins, until lightly brown
- ♥ Have as a pudding to mitigate a glucose spike

SALTY CHOCO-NUT BRITTLE

- ♥ 150g 70% (+) dark chocolate
- ♥ 20g chopped walnuts
- ♥ ½ tsp maldon sea salt
- ♥ 30g pistachios or almonds
- ♥ Line a medium baking tray with baking paper.
- ♥ Let the chocolate over a pan of simmering water (do not allow the bowl to touch the water), stir occasionally until the chocolate has melted
- ♥ Spread the chocolate over the baking tray into a thin, even layer, scatter the nuts and crumble the sea salt over the top.
- ♥ Leave in the fridge for at least 40 mins to harden
- ♥ Break or cut into bitesize pieces (keeps in a Tupperware for up to 2 weeks)

Gestational Diabetes



Nutty Granola Bars

Makes 24 bars

Can be stored in an air tight container

- ♥ 4 Tbsp ground flax or chia seeds (or a combination)
- ♥ ½ cup raw honey
- ♥ 1 egg
- ♥ 1 tsp sea salt
- ♥ 1 cup raw almond pieces
- ♥ 1 cup raw walnut pieces (can use other nuts)
- ♥ 1 cup unsweetened large coconut flakes
- ♥ 1 cup unsweetened fine coconut flakes



- ♥ Mix the ground seeds with honey in a small bowl
- ♥ In a large bowl combine the remaining ingredients
- ♥ Add the honey mixture and combine both
- ♥ Line a baking tray with baking paper and put mix in.
- ♥ Lay another piece of baking paper over the top and spread/press evenly over the tray
- ♥ Press firmly with a flat surface like a pot or pan
- ♥ Place in the oven at 160° c
- ♥ Bake for 24 mins, rotating the tray half way
- ♥ Allow to cool and cut into 24 bars

APPLE AND PEANUT BUTTER

Remember to pair fast absorbing carbohydrates with fat and protein to slow their absorption and reduce blood sugar spikes



Gestational Diabetes



- ♥ If counting calories, weighing and measuring foods, putting things in my fitness pal, sucks the joy from your soul, I hear you. Me too!
- ♥ A helpful tip is just to make sure that 50% or more of your plate is made up of mainly green cruciferous vegetables. 25-50% made up of protein and some good fats and 0-25% is made up of complex, slow-release carbohydrates. You do not need any white starchy carbs to survive. Plenty of carbohydrates come from vegetables that do not spike blood sugar in the same way.
- ♥ If your calories are mainly coming from protein and some good fats, you will feel fuller for longer and find energy you never knew you had.
- ♥ Protein, fats and nutrient dense vegetables are the good building blocks for our own bodies and those of our growing babies.

We are what we eat and so are our babies, so let's make sure we and they are made of good stuff.

FURTHER SUPPORT

If you would like further information or support, do get in touch:

shellie@theserenitydoula.co.uk

www.theserenitydoula.co.uk

@theserenitydoula

I offer zoom or telephone conversations for a charge of £35 per hour

Gestational Diabetes



There is NO evidence that induction of labour improves outcomes or is beneficial for people with Gestational Diabetes

- ♥ This quote is from Dr Sara Wickham's blog post about gestational diabetes and yes you read that right. There is NO evidence that induction for gestational diabetes is beneficial for mothers/people or their babies.
- ♥ Having several "risk factors" also does not necessarily justify induction or caesarean. It is your choice. Always ask if there is evidence that induction is beneficial for each of the risk factors.
- ♥ Being at "higher risk" is very different to having an actual issue. Very few people labelled as high risk actually go on to have an issue.
- ♥ There is one small trial (425 women) that showed no difference between birth options with regard to number of large babies, shoulder dystocia, breathing problems, low blood sugar or admission to NICU. No baby in the trial experienced birth trauma. In the induced group the incidence of jaundice was higher (Biesty et al 2018).
- ♥ "Women with gestational diabetes have comparable outcomes to pregnant women who are not affected by gestational diabetes and can be considered as low risk until any evidence is found" (Jabak & Hameed 2020).
- ♥ "With mothers with well controlled gestational diabetes, we find it difficult to recommend women give birth in obstetric led units with continuous fetal monitoring and deny them a chance to have a home birth or midwifery-led birth. There is an urgent need for large scale trials to establish evidence against this recommendation" (Jabak & Hameed 2020).
- ♥ If induction is suggested "just in case" know that we do have good evidence that induction causes avoidable harm including increased chance of caesarean, is increased with more intervention and leads to more adverse outcomes. Women are not given adequate information and that there are significant benefits to awaiting spontaneous labour.

The choice of what happens is always yours

FURTHER HELPFUL RESOURCES:

<https://www.sarawickham.com/articles-2/induction-for-gestational-diabetes/>

<https://www.sarawickham.com/articles-2/gestational-diabetes/>

<https://midwifethinking.com/2018/03/20/gestational-diabetes-beyond-the-label/>

<https://evidencebasedbirth.com/evidence-on-induction-for-gestational-diabetes/>

Gestational Diabetes

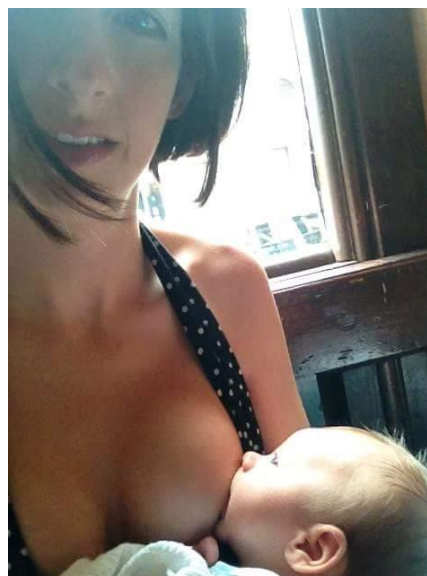


Supplements

- ♥ [Magnesium glycinate](#) (100-300mg/day) – Most important for glucose control
- ♥ [Vitamin D](#) - 2,000IU per day (combined with zinc, selenium and vitamin c)
- ♥ [Folate](#) - not folic or folinic acid
- ♥ [Omega 3](#) - minimum 300mg/day (if not 2-3 oily fish portions per week + eggs)
- ♥ Or/ [Vegan Omega 3](#)
- ♥ [Probiotics](#) - 30 million CFUs per serving - lactobacillus & bifidobacterium
- ♥ [Vitamin B6](#) – 50mg 2x per day – Improves glucose control
- ♥ [MYO-Inositol](#) – 2g per day (more research needed, can help to prevent GDM)
- ♥ [CoQ10 100mg](#) 1x per day – Helps reduce oxidative stress on the placenta
- ♥ Chia – 1-2 tbsp per day – Helps slow carb absorption and contains nutrients (minerals, calcium, magnesium, iron, potassium, fibre)

Breastfeeding is THE single largest protective factor against heart disease in women. So seek all the support you need to make your journey easier.

<https://www.youtube.com/watch?v=o2XjA4wA4Tl>



LINKS TO PURCHASE SUPPLEMENTS FROM LAMBERTS/NUTRI

I am a naturopath as well as a doula. When taking supplements make sure to adhere to the guidance doses. If you are taking other medications or have specific health concerns, speak to your healthcare provider before taking supplements.

For purchasing Nutri products, you can register as a client seeing a health professional online or over the phone and quote my account number C000331190 if you wish (this is an affiliate account)

Contact Nutri here:

Freephone 0800 043 5777
- Mon-Fri 8:30am-5:00pm

<https://www.nutriadvanced.co.uk/>

For Lamberts you can order directly:

Phone: 01892 554 313

<https://www.lambertshealthcare.co.uk/>