Gestational diabetes

• **Intro:**	- One of the most **common** conditions of pregnancy, which can have serious complications for the parent and baby if not identified and managed - Usually goes away again after giving birth - It's usually diagnosed from a **blood test 24 to 28 weeks** into pregnancy - Less common than Type 1 & 2 diabetes (increasing prevalence tho) - Affects 4-5 in 10o women during pregnancy, or 1 in 20 pregnancies in the UK
• **Causes:**	- Hormonal difficulty to use insulin (increased risk of insulin resistance) - Cells don't respond properly to insulin by not producing enough, making it difficult to use glucose properly for energy (stays in body & blood sugar level rises), leads to gestational diabetes
• **Risk factors:**	- Living with overweight or obesity - Having had it before in a previous pregnancy - Having had a very large baby in a previous pregnancy (4.5kg / 10lbs or more) - Having a fHx of diabetes (at least one parent or sibling) - Having a South Asian, Black or African Caribbean or Middle Eastern background - Increasing age (NHS recommends screening if pregnant and over 40yrs or older)
• **Prevention:**	- Some people can't prevent it{{nl}}- Get support to manage weight, healthy diet and keeping active before and during pregnancy
• **What after diagnosis?**	- Care team informs GP - Within **1 week** you should be referred to a joint diabetes and antenatal clinic - Team will work on targeting blood sugar levels with you (will reduce risks of complications)
• **What happens if mom has GD?**	- Can affect how well the placenta works - Can make baby unwell and affect their movements - If baby movements have slowed, stopped or are different to normal, **contact midwife or maternity unit immediately**

Gestational diabetes (cont)

• Complications:

- Baby growing larger than normal (more painful or difficult birth & possible distress)
- Neonatal hypoglycaemia (baby has low blood sugar after birth)

As well as the above, continuous high blood sugar levels can also lead to:

- Induced labour
- Caesarean section
- Baby having higher risk of being overweight or obesity & developing Type **2** diabetes
- Baby having yellow skin & eyes (jaundice) after birth

• Symptoms:

- Going for a wee a lot, especially at night
- Being really thirsty
- Feeling more tired than usual
- Genital itching or thrush
- Blurred eyesight

Many women have no noticeable symptoms

• Tests:

Oral glucose tolerance test (OGTT)

Doesn't harm mom or baby

1. You'll need to fast (no food or drinks) for 8-10 hours the night before & the morning of the test

2. Blood test to measure blood glucose level

3. Will be given a glucose drink

4. Rest for 2 hours, another blood test to see how the body is dealing with the glucose

Results: Diagnosed with GD if fasting blood sugar level is **5.6mmol/l or above**, or if your 2hr post glucose blood sugar level is **7.8mmol/l or above**

- GD can develop at any time during pregnancy, if you develop any symptoms (despite -ve OGTT), talk to midwife

• Treatments:

- Checking blood sugar levels regularly (pricking w/ lancet)
- Levels outside targets discuss with healthcare team, can cause problems for mom and baby
- Very common to need **glucose lowering medication**, including **insulin**
- Regular physical activity
- Healthy diet

Gestational diabetes (cont)

• **Medications:**	- **Metformin:** tablet that helps to reduce the amount of glucose produced by the liver, & to make insulin work more effectively; taken with, or after, a meal - **Insulin:** Allows glucose to enter the cells and to be used for energy; injection that goes in just undertake skin (can't be taken orally because the stomach will digest it)
• **What should I aim for?**	- Going for regular walks after lunch or dinner - Pregnancy yoga - Swimming or water aerobics - Dancing in the kitchen - Try not to sit after a meal (being active for 15-20min within 30 min of a meal)
• **Blood sugar level aims:**	- Fasting: below 5.3mmol/l - 1hr after meals: below 7.8mmol/l - If not able to check until 2hr after a meal: below 6.4mmol/l

https://www.diabetes.org.uk/diabetes-the-basics/gestational-diabetes

Gestational hypertension

• **Intro:**	- BP readings of **≥140/90 mmHg on 2 occasions at least 4hr apart after 20 weeks' gestation** in a previously normotensive woman - Must be **w/o** the presence of **proteinuria** (<300mg in 24hr) or **other clinical features** (thrombocytopenia, impaired renal or kidney function, pulmonary oedema, or new-onset headache) **suggestive of pre-eclampsia**
• **Key diagnostic factors:**	-Presence of risk factors - Previously normotensive - BP ≥140/90 mmHg - <20 weeks' gestation - Absence of Ssx that suggest pre-eclampsia
• **Risk factors:**	- Nulliparous (hasn't given birth before) - Black or Hispanic ethnicity - Obesity

Gestational hypertension (cont)

• 1.3 Management of chronic hypertension in pregnancy:

Referral & discussion:

- Offer referral to a specialist in hypertensive disorders for women with chronic hypertension to **discuss treatment risks & benefits**
- For those taking **ACE inhibitors or ARBs**, highlight the increased risk of congenital abnormalities during pregnancy
- Emphasise discussing **alternative antihypertensive treatment** with healthcare professionals if planning pregnancy or taking these medications for other conditions

Medication safety update:

- Note the MHRA's drug safety update on ACE inhibitors and angiotensin II receptor antagonists, advising against use in pregnancy **unless absolutely necessary**

Antihypertensive treatment adjustment:

- Promptly discontinue ACE inhibitors or ARBs if pregnancy is confirmed, preferably **within 2 working days**, & provide alternative options
- For thiazide or thiazide-like diuretics, **inform about potential risks of congenital abnormalities & neonatal complications** during pregnancy
- **Encourage discussion of alternative antihypertensive treatment** with healthcare professionals for those planning pregnancy

Limited risk with other antihypertensive treatments:

- **Assure** women taking antihypertensive treatments other than ACE inhibitors, ARBs, thiazide, or thiazide-like diuretics that limited evidence **suggests not increased risk of congenital malformation**

Gestational hypertension (cont)

• 1.4 Management of gestational hypertension:

Assessment & risk factors:

- Full assessment in 2° care by a trained healthcare professional
- Consider additional risk factors: nulliparity, age >40 or older, pregnancy interval >10 yrs, fHx of pre-eclampsia, multi-feral pregnancy, BMI 35kg/m2 or more, gestational age at presentation, previous Hx of pre-eclampsia or gestational hypert-ension, pre-existing vascular disease, pre-existing kidney disease

Tests & treatment:

- Hypertension (BP 140/90 - 159/109 mmHg): offer pharmacological treatment ig BP remains above 140/90 mmHg
- Severe hypertension (BP 160/110 mmHg or more): admit to hospital; if BP falls below 160/110 mmHg, manage as for hypertension
- Antihypertensive treatment: offer to all women; target BP of 135/85 mmHg or less
- BP measurement: 1 or 2x / week until BP is 135/85 mmHg or less
- Dipstick proteinuria testing: 1 or 2x /week (w/ BP measurements)
- Blood tests: measure full blood count, liver function, & renal function at presentation & then weekly
- Placental growth factor (PLGF)-based testing: if suspicion of pre-eclampsia
- Fatal assessment: offer fatal heart auscultation at every antanatal appointment; ultrasound assessment at diagnosis & repeat every 2-4 weeks if normal; cardiotocography (CTG) if clinically indicated

Additional metal monitoring (severe hypertension):

- Ultrasound assessment every 2 weeks if severe hypertension persists
- CTG at diagnosis & then only if clinically indicated

https://www.nice.org.uk/guidance/ng133/chapter/Recommendations#management-of-gestational-hypertension

Pelvic girdle pain (PGP) in pregancy

• **Intro:**	- Pelvis has 3 joints that normally move slightly & work together - PGP is caused by **uneven movement** of these joints, resulting in **less stability & pain** - Factors contributing to PGP include **changes in weight & posture** during pregnancy
• **Signs & symptoms:**	- Px in pubic region, lower back, hips groin, thighs or kness - Clicking or grinding in the pelvic area - Pain made worse by movement: walking on uneven surfaces / rough ground or for long distances; moving your knees apart (getting in/out of the car); standing on one leg (climbing the stairs, dressing, getting in/out of bath); rolling over in bed; during sexual intercourse
• **Risk factors:**	- Hx of back problems - Hx of pelvic injuries - Hypermobility syndrome
• **Management options:**	- Avoiding aggravating movements / changing positions - Exercises for pain relief & mobility: focus on strengthening abdominal & pelvic floor muscles for improved balance, posture, & spine stability; incorporate routines that facilitate easier movement while minimising strain - Mobs, drops, SMT - Warm baths, or heat, or ice packs - Hydrotherapy - Acupuncture / dry needling - Support belt or crutches

https://www.rcog.org.uk/for-the-public/browse-our-patient-information/pelvic-girdle-pain-and-pregnancy/#::text=PGP%20is%20common%2C%-20affecting%201,stage%20during%20or%20after%20pregnancy.