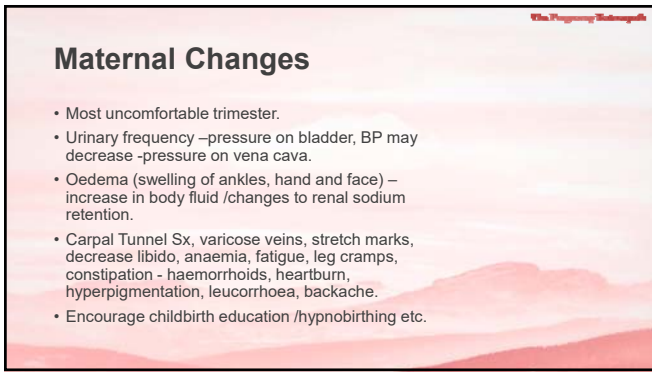


The Pregnancy Naturopath
 Trimester Three –Instrument of Birth



Trimester Three
 Wk. 28-40

- Maternal changes & baby milestones
- Investigations
- Group B Strep
- Anxiety
- Gestational Diabetes
- Anaemia
- Discomforts: Cramps, pelvic girdle pain, constipation and reflux
- Pregnancy Loss
- Labour Preparation –partus prep



Maternal Changes

- Most uncomfortable trimester.
- Urinary frequency –pressure on bladder, BP may decrease -pressure on vena cava.
- Oedema (swelling of ankles, hand and face) – increase in body fluid /changes to renal sodium retention.
- Carpal Tunnel Sx, varicose veins, stretch marks, decrease libido, anaemia, fatigue, leg cramps, constipation - haemorrhoids, heartburn, hyperpigmentation, leucorrhoea, backache.
- Encourage childbirth education /hypnobirthing etc.

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Baby Milestones

- **Period of growth**
 - Fat stores & muscular strength increases, baby more than doubles in size, grows in length (approx.30-50cm), breathing/lung/diaphragm movements occur, eyelids open/close, sleep/wake cycle, hearing improves, bones are fully developed but soft and pliable.
- **From 33/40**
 - rapid weight gain, lanugo binds vernix to the skin – prevents heat loss after birth by 'waterproofing', baby may engage into the pelvis to prepare for birth.
- **From 38/40**
 - at term, all organs are fully developed, head usually engages.

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Investigations

- As per Trimester Two: ensure adequate calcium, magnesium, vitamin D –structural growth.


Additional

Ferritin (see anaemia in pregnancy).
 Glucose Tolerance Test -26-28/40.
 Group B Streptococcal vaginal & rectal swab -35-37/40.

Group B streptococcus (GBS)

- Common bacterium that can colonise people of all ages without symptoms.
- Found in the gastrointestinal tract, vagina and urethra.
- The bacteria can be passed from mother to baby during labour and lead to infection in the first week of life (early onset infection). Late onset infection can develop up to 3 months of age.

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GBS

- Australian studies have identified colonisation rates in the range of 20% to 24% About 1 in 4 pregnant women carry GBS bacteria in their body. ⁽¹⁾
- 1-2 % of baby's develop early onset GBS disease of which 6% can be fatal. ⁽²⁾

Risk Factors

- Maternal colonisation during the pregnancy.
- Previous infant with Group B streptococcus infection.
- Preterm birth.
- Prolonged rupture of the membranes.
- Maternal fever during labour

(1)

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GBS – Treatment

- Intravenous antibiotic (Penicillin) treatment during labour is shown to prevent early onset Group B streptococcus infection in 86–89% of newborns of mothers colonised before birth. (3)
- Prophylactic IV Antibiotics also given if high risk of transmission during labour: preterm birth, maternal body temperature >38°C, membrane rupture > 18 hours. (1)
- Asymptomatic or:
 - **Pregnancy** –fever, abdominal swelling and uterine tenderness.
 - **Neonatal** –Respiratory distress, general sepsis, meningitis, lethargy, pallor <7 days
- Prevention important: a mother’s exposure to antibiotics in pregnancy was associated with increased risk her child would develop a severe infection (requiring hospital admission) in the first six years of life. (4)
- Adjunct Rx: Immune support –Echinacea, vitamin C, Zn, beta-carotene, vitamin E, probiotics. (see T1 –infection prevention protocol).

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Anxiety in Pregnancy

- Effects up to 1 in 10 pregnant women.
- Extreme feelings of anxiety are characterised by continuous worry, fear, nervousness and apprehension.
- It is a problem if:
 - It occurs regularly such as most days of the week, or frequently over a several months.
 - The level of distress you experience is an overreaction to your circumstances.
 - It occurs despite no obvious reason.
 - It effects your day to day activities, engaging with others, decision making and problem solving.

(5)

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Causes in addition to Pregnancy

- Personality traits such as low self-esteem.
- Perfectionism or negative thinking –fears, nightmares.
- Family history of anxiety or mental illness
- Imbalances in brain chemistry.
- Ongoing stress from work, finances, family, relationships.
- Substance abuse, caffeine or nutritional deficiencies (of which pregnancy can make worse).

(6)

Symptoms

- **Physical** –racing heart, chest tightness, excessive sweating, rapid breathing or shortness of breath, muscle tension (shoulders, neck, and jaw) or headaches, sleeping problems, stomach pain, nausea, feeling dizzy or shaky.
- **Emotional** –fear, worry or panic, sense of overwhelm or dread, nervous or 'on-edge', catastrophizing.
- **Mental** – obsessive and intrusive thoughts, negative self-talk, difficulties with concentration and focus, past trauma flashbacks or dreams.
- **Behavioural** –can startle easily, withdraw from people or social situations, compulsive behaviour, difficulty making decisions, avoid uncomfortable situations.

(7)



Naturopath Support

Build a Resilience Toolkit:

- MediHerb "Building Resilience." EG: know your own strengths & challenges, when to ask for help & seek support.

Strategies:

- Healthy food, counselling, sleep hygiene, build social & community connections, green space, exercise, avoid big decisions during stress, meditation & journaling. (8)
- Mindfulness Practice: a great way to acknowledge and deal with the emotions creating anxiety, in a safe place. To turn towards anxiety, instead of being scared or avoiding it, is an effective way of managing it.
- Acknowledge pregnancy fears.

The things that trouble our spirits
are within us already. In meditation,
we must face them, accept them,
and set them aside one by one.

Christopher L. Bennett

#DAILYCALM

Calm

#DAILYCALM

Calm

Support cont.

- **Food Choices:** avoiding caffeine, alcohol, processed and fried/fatty foods, focus on good fats, foods rich in B vitamins and antioxidants.
- **Nutrients:** Magnesium has been shown to improve the ability to cope with stress, improve the quality of sleep, help regulate and improve mood and reduce symptoms of anxiety and depression. (9) Revisit vitamin D, Choline/EFA's. DHA =forgetful & vague. ? Extra B12/folate.
- **Herbs:** Nervines –Skullcap, Oats seed, Passion Flower, Zizyphus, Vervain, Californian poppy (short term), Valerian & Hops (caution in BF) –sedative action.
- **Adrenal Health:** T2 baby nervous system connects with mother. Link with Moro reflex in baby. Mother SNS dominant =harder to settle baby post natally.
- **Check in:** & Stay in touch, Mood & Stress Q /DASS. Refer as required. The pregnancy Fear =find out and support.

Gestational Diabetes (GDM)

- Glucose intolerance with pregnancy onset.
- GDM affects around 10% of pregnancies in Australia, but can occur in up to 30% in high-risk populations. (10)
- Women are at increased risk of pre-eclampsia, hypertension, early delivery, induction of labour and caesarean section. (11)
- Long term; increased risk of type 2 diabetes mellitus (T2DM); a cumulative risk of 25.8% at 15 years post-pregnancy in a moderate-risk population. (12) Increased incidence of CVD.

GDM cont.

Babies are at increased risk of:

- Congenital malformations –high blood glucose T1
- Stillbirth
- Macrosomia
- Birth injuries –shoulder dystocia
- Respiratory distress
- Hypoglycaemia
- Jaundice.

Long Term: living with a disability, obesity, Type 2 diabetes in early adulthood.

(13)

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Risk Factors for GDM

- Past history of elevated FG or BG.
- Previous GDM.
- Maternal age ≥ 40 yr.
- Family History -1st degree relative with Type 2 or GDM.
- BMI >35 kg/m².
- Previous macrosomia baby (birth weight >4500 g).
- PCOS.
- Medications: corticosteroids, antipsychotics.

(14)

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GDM Management

- Diagnosis –GCT and/or GTT at 28/40. –Rpt GTT 6-12 wks. post partum.
- Management: BSL self monitoring, diet, exercise.
- Medical treatment: Metformin +/- insulin.
- Food: reduce saturated fat, replace with EFA's, CHO 40-45%, dietary fibre 28g/d=wholegrains & fruit.
- Exercise: regular activity associated with a 48% reduced risk of GDM, exercise before and during pregnancy decreases risk by 60%. (15)
- Weight loss: preconception is ideal. 30-33% reduction in KJ's reduces BG and TGL's without increasing FFA's or ketones. (15)

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GDM Treatment

Nutritional

- Chromium 200-400 mcg/d.
- Magnesium 250-400mg/d –shown to reduce insulin resistance in GDM. (16)
- Selenium 50-100mcg/d.
- B6 100mg/d for 2 weeks.
- Vitamin D 1000IU-4000IU/d –based on individual requirements.

GDM Treatment cont.

Herbal

- Goats Rue (*Galega officinalis*) –hypoglycaemic. 1:2 ext. 30-60mL/week.
- Cinnamon 1g –teratogenic in high doses & 70% alcohol in fluid extract. Food grade ok.
- Fenugreek –food grade/tea only. Abortifacient (Ayurvedic med)
- Gymnema sylvestre—Caution T1 –stick to recommended dose. 1:1 ext. 3.6-11.0 mL/day.
- **Nigella sativa –Contraindicated in pregnancy –effects placental development.**


Anaemia in Pregnancy

- T1 & T3 =Hb <110 g/L
- T2 =Hb <105 g/L
- **Mild anaemia** –low energy & fatigue, reduced mental performance, infections.
- **Severe anaemia** –preterm birth, low birth weight, small for gestational age baby. (15)
- **Post Partum** –linked to depression, emotional instability, stress, lower cognitive performance. (17)

Anaemia cont.

- 30-50% incidence in pregnancy -90% cases are iron deficiency. (18)
- Iron demands increase rapidly in T2 & T3 due to foetal growth, reaching up to 10mg/day in the last weeks.
- Preconception Ferritin may be a good predictor. Ferritin < 20 mcg/L =doubles risk of anaemia at 20 wks.(15)
- Iron Studies: T1, 24-28 wks. & 36 wks.
- Ferritin: can be elevated if infection/inflammation – concurrent CRP.
- Interpreting serum blood tests –Rachel Arthur clinical resource & under 30 talk. Clinical resource –attached.

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Treatment

- 40 mg/day Iron (upper limit 45mg/d)
 - Take same time daily, with food, protein increases absorption.
 - Preferably morning or evening (Hepcidin =iron inhibitor is low).
 - Prevents iron deficiency in 90% of women. (15)
- Avoid Ferrous sulphate –GIT symptoms.
- Co-factors important -Lactoferrin =iron binding lipoprotein, improves haemoglobin response to Iron by reducing inflammation. Opens up doorways for Iron uptake. (19)

The Pregnancy Supplement

Iron Inhibitors

Do not consume with iron supplements or iron-rich meals. Separate by at least 2 hours.

- Eggs: contain a protein called phosvitin that prevents iron absorption.
- Dairy: Large amounts of dairy products daily such as; milk, yoghurt and cheese.
- Polyphenol rich foods—coffee, cocoa, apples, walnuts, blackberries, raspberries & blueberries. Cocoa can inhibit iron absorption by up to 90% and 1 cup of coffee by 60%.
- Zinc, Calcium, Magnesium & Manganese —can interfere with iron absorption. Depending on dose and form.
- Phytates —walnuts, almonds, sesame, dried beans, lentils, peas, cereals & wholegrains.
 - Soaking & draining before eating/cooking can help to remove the phytate.
- Oxalates—consuming tea with meals reduces the absorption of iron from plants.

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Common Discomforts of Pregnancy

Calf muscle cramps:
 >300mg Magnesium reduces frequency & intensity by up to 80%. (20)

- Can add mineral salts: CPMP. Ensure hydration: pink Himalayan salt, mineral water etc. Can also be used to treat Braxton Hicks.
- 300mg Mg/d also reduced uterine hyperactivity (threatened pre-term labour). If taken before 25/40 reduced the risk of premature labour.
- Check Vitamin D.

Pelvic girdle pain

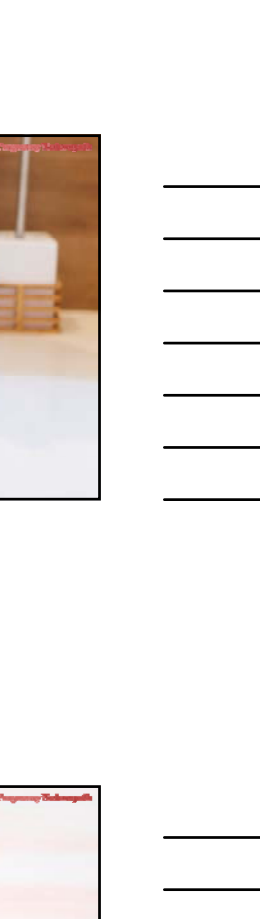
- Chiropractic care: network spine analysis, pelvic belt, experienced, referral partner.
- Connective tissue support: Silica, Calc. Flour., vit C & bioflav. Pain & Inflammation: EPA & Turmeric. PEA —caution.



Common Discomforts cont.

Constipation

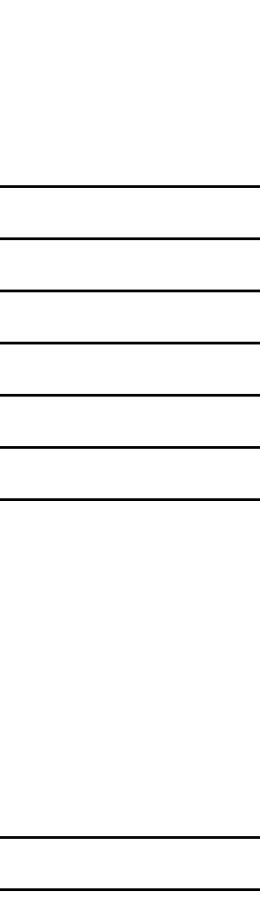
- Effects 1 in 4 women. Common cause of haemorrhoids.
- 1-2 Tbsp. LSA, or chia seeds to breakfast/oats and soak before eating. Top with prunes (optional).
- 1-3 Stewed or soaked prunes, or 1 cup prune juice can have a laxative effect.
- 1 heaped teaspoon Flax meal, psyllium husks or slippery elm powder, in a glass of apple or pear juice, drink immediately and follow with an additional glass of water.
- Massage the abdomen in a clockwise direction with good quality cold pressed extra virgin olive oil, or warm organic coconut oil.
- Probiotics: Bifidobacterium
- Cascara: can be dosed for mild effect, low dose only.



Common Discomforts cont.

Reflux

- As many as 8 in 10 women may have indigestion during their pregnancy.
- Naturopathic digestion management principles apply.
- Avoid known triggers such as carbonated drinks and caffeine, as this can weaken the sphincter responsible for keeping food in the stomach. (21)
- Manage stress.
- Make room for the stomach: avoid bending over, slouching on the couch or lying down within two hours of eating. A light stroll and/or sitting and leaning forward over the back of a chair with no arms. Encourages baby to move down into the pelvis.



Reflux cont.

- Sleep position: Slightly raise upper body with pillows, sleep on the left side can prevent overnight symptoms of reflux due to the position of the stomach.
- 'Climb the fireman pole.' Stand as tall as you can and stretch arms up, alternate one hand over the other like your climbing a pole. Trust me it works!
- Support digestion: digestive enzymes, and/or herbs such as Chamomile, Lemon Balm, Slippery Elm.

The Really Bad Stuff

Pregnancy Loss >20 weeks gestation

- The rate of stillbirth in Australia is 6.7 per 1000 births, which equals almost 2,200 families each year (22).
- One in every 137 women who reach 20 weeks' gestation will have a stillborn child.
- For Indigenous women and women from other disadvantaged groups, this risk is often doubled (23).
- Little improvement in rates over the past 20 years, despite increase in intervention. Australia is lagging behind countries such as Finland, Denmark & Netherlands. (23)

Pregnancy Loss: Cause & Risk Factors

- The major causes are congenital abnormality, 'unexplained death', perinatal conditions, and maternal conditions. (22)
- 20% still remain unexplained.

Risk Factors

- Maternal perception of decreased foetal movements (strength or frequency).
- Foetal growth restriction.
- Smoking, hypertension, diabetes.
- Overweight and obesity.
- Prolonged Pregnancy > 41 weeks gestation.
- Primiparity.
- Maternal age over 35 years (esp. >40 yrs. old).
- Previous stillbirth. (23)



Pregnancy Loss cont.

- Emotional outcome is enormous - increased risk of anxiety, depression, post-traumatic stress, and suicidal ideation (24).
- Investigations: screen for Thrombophilia, Lupus/ANA, Infections ?incl parasitic worms, MTHFR.
- Prevention: Monitor Foetal movements (kicks, flutters, swishes or rolls) –note patterns and changes, cold drink, sit quietly and count ten kicks/movements. Should be <2hours. If not contact health care provider.
 - Address risk factors.
- Support:
 - www.stillbirthfoundation.org.au
 - www.marchofdimes.com
 - www.bearsofhope.org.au

Labour Preparation

Partus Prep –strong traditional use in facilitating delivery.

Aims:

- Improve uterine tone and encourage engagement of presenting part into the pelvis.
- Enhance co-ordination and effectiveness of contractions.
- Avoid inordinate contractions & after pains.
- Assist with inducing labour.
- Help reduce labour duration.
- Prevent 3rd stage complications such as haemorrhage.
- Assist uterine involution

(25)

Raspberry Leaf

- High in flavonoids & minerals
–Ca, Fe, Zn, Mg, B vitamins, E.
- Tannins: can reduce postpartum haemorrhage, bleeding gums & after pains.
- Commonly used by women and prescribed by midwives.
- Limited research: 1 Australian study showed,
 - A decrease in the likelihood of pre and post-term gestation.
 - Less likely to receive an artificial rupture of membranes, require a caesarean section, forceps or vacuum birth, than the women in the control group. (25)

Raspberry Leaf cont.

- Can be started as a tea from 25 weeks.
- Take away from medications & mineral supplements due to Tannins.
- Dose:
 - dried leaf: 4-8g as a tea TDS
 - Liquid Extract 1:1: 4-8mL up to TDS
 - Tablet: 2-4g/day
- Timing:
 - 34-36 weeks: 1 cup per day.
 - Build up by x 1 cup per day per week, until 40 weeks.
 - Max: 5 cups per day.
 - Hot –mix with peppermint, spearmint, lemon balm or chamomile.
 - Cold –mix with ice, fresh mint, sliced lemon, honey/stevia.

(25)

Partus Prep

Formula Contains:

- **Uterine tonic:** –Raspberry leaf, Squaw vine, False Unicorn Root, Dong quai.
- **Emmenagogue:** Mugwort, Black cohosh –oxytotic effects, Motherwort, Schisandra (oxytotic, hepatoprotective, adaptogen, nervine). Adhadota (oxytotic –CI-except >38/40), Yarrow –CI.
- **Spasmolytic:** (esp. if at risk/hx of preterm labour) – Paeonia, Wild Yam, Valerian, Cramp Bark.
- **Oxytotic:** Schisandra, Black cohosh; reconsider if previous precipitate birth, pre term birth, head/bottom not engaged in pelvis.

Example Formula

Dong quai 1:2	120mL
Squaw vine 1:2	80mL
Raspberry leaf 1:2	160mL
Black cohosh 1:2	40mL
Total	400mL

- 2.5 mL TDS @ 36 weeks.
- Increase by 1mL TDS every week.
- 5mL diluted TDS @ 38 weeks.
- Can add Schisandra 1:2 100mL as a simple in drop dose from 36-38/40 to add to the base formula. Start 10drops/d, increase by 10 drops/d. Max 8.5 ml/d.



Labour

- 30 weeks: discuss child birth education outside hospital, birth support, hospital policy & procedures, active Vs physiological 3rd stage, vitamin K, vaccinations –informed choice.
- Encourage labour: research shows positive results for -breast stimulation, sex, regular exercise throughout pregnancy, optimal foetal positioning.
- During labour: hydration & electrolytes, magnesium.
- Post Labour: tissue/wound healing post C-section or episiotomy –vitamin C, A, Zinc, Bromelain, Curcumin, Ginkgo, Echinacea, Gotu Kola, Calendula, Arnica –homeopathic or topical.
 - PPH >50mL blood loss <24hours post labour. FBE & Iron studies 2/52 pp.

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Birth Matters... It matters because it is the way we all begin our lives outside of our source, our mother's bodies. It's the means from which we enter and feel our first impression of the wider world. For each mother, it is an event that shakes and shapes her to her innermost core. Women's perceptions about their bodies and their babies' capabilities will be deeply influenced by the care they receive around the time of birth.

www.lidehearts.com

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What's Next?


- Trimester Four –Birth of a Mother
 - Wound Care
 - Breastfeeding
 - Colic
 - Post Natal Depression
 - Sleep
 - & More



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Thank You

- I love supporting women through pregnancy and new motherhood, and I would love you to do the same.
- Thankyou for your time in learning how to support women holistically in pregnancy.
- It is super important work that needs to be done to enable women to birth & mother with confidence, and achieve the childbirth experience they desire.
- Please join me on...
 - LinkedIn: Carmen Farrugia
 - Facebook: The Pregnancy Naturopath
 - Instagram: @ThePregnancyNaturopath



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