



	The Programy Subsequel
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.	

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.

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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- 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

Information antibotic (Pencillar) treatment during labour is shown to prevent early oract Group B streptococcus effection in 86-88% of resolutions of conductions of the streptococcus effection in 86-88% of resolutions of recolutions of the streptococcus effection in 86-88% of resolutions of the streptococcus effections of the streptococcus effec

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).

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.
- nausea, reeining dizzy of snaxy.

 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.



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.



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, op. 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.



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 >4500g). PCOS. Medications: corticosteroids, antipsychotics.

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)



GDM Treatment cont. Herbal Goats Rue (Galega off) –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.

	The Programsy Subscept
Anaemia in Pregnancy	
T1 & T3 =Hb <110 g/L T2 =Hb <105 g/L Mild anaemia —low energy & fatigue, reduced mental performance, infections.	
<u>Severe anaemia</u> –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.	The Programy Subsequels
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.	

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)

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.

 Phylates —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.

Common Discomforts of Pregnancy

- <u>Calf muscle cramps</u>: >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. Constitution • Effects 1 in 4 women. Common cause of haemorrhoids. • 1-2 Tbsp. LSA, or chia seeds to breakfastioats and soak before ealing. Top with prunes (optional). • 1-3 Stewed or soaked prunes, or 1 cup prune juice can have a laxaltive effec. • I heaped teaspoor Flax meal, psyllium husks or slippery elm powder, in ciplass of apple or pear juice, drink immediately and follow with an additional glass of wires: • Massage the abdomen in a clockwise direction with good quality cold pressed extra virgin olive oil, or warm organic cocontroll. • 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.	Was Programy Subsequels
 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)



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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.
- parastic worms, in First.

 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



	The Programy Submapule
Raspberry Leaf cont.	
Can be started as a tea from 25 weeks.	
Take away from medications & mineral supplements due to Tanning	is.
Dose: dried leaf: 4-8g as a tea TDS	
 Liquid Extract 1:1: 4-8mL up to TDS Tablet: 2-4q/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.	Ellisotto.
Hot –mix with peppermint, spearmint, lemon balm or chamomile. Cold –mix with ice, fresh mint, sliced lemon, honey/stevia.	
(25)	

Partus Prep

Formula Contains:

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

Example Formula

120mL 80mL Dong quai 1:2 Squaw vine 1:2 Raspberry leaf 1:2 160mL Black cohosh 1:2 40mL 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 >500mL blood loss <24hours post labour. FBE & Iron studies 2/52 pp.







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