



Trimester One (Week 1-12)

- Listeria Monocytogenes –is the risk real and what to avoid?
- Miscarriage – aetiology & prevention, threatened miscarriage protocol.
- Nausea and vomiting in pregnancy –treatment and survival tips.
- Fatigue –so common.
- Weight Management – effects of obesity in pregnancy.

Dr Seuss Explains Pregnancy

What is a womb?
Well a womb is a room
A womb is a room
Where a kid'll be soon

A womb is all equality
All rooms and magnets
And if there's a kid
Then its full of placenta

When the kid gets too big
Then its time to get out
When it happens to you
You will probably shout

You will shout, you will yell
You will yell on the floor
Can the kid never come out
Or a very small one

But the kid never be small,
If there's one there at all
Just the size of a bean
Or the size of a ball

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Listeria Monocytogenes

- Bacteria *L. monocytogenes* 80 reported cases per year.
- Effects pregnant women and newborn babies, elderly & immunocompromised.
- Symptoms can include; fever, muscle aches, and sometimes nausea and diarrhoea. Septicaemia (blood poisoning) and meningitis (inflammation of the outside of the brain), and consequent death.
- Pregnant women; mild symptoms, however infections during the pregnancy can lead to miscarriage, stillbirth or infection to the newborn baby.
- Symptoms usually start between 3 to 70 days (average 21 days) after eating food contaminated with the bacteria. Treatment is IV antibiotics.
- Spread via contaminated food not via person to person.

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Prevention

Avoidance of Higher Risk Foods

- Chilled seafood such as raw oysters, sashimi and sushi, smoked ready-to-eat seafood and cooked ready-to-eat prawns.
- Cold deli meats, cold cooked ready-to-eat chicken, raw eggs.
- Rockmelon, pre-prepared or pre-packaged fruit or vegetable salads, including those from buffets and salad bars.
- Soft, semi-soft and surface-ripened cheeses such as brie, camembert, ricotta, blue and feta. Refrigerated pâté or meat spreads.
- Soft serve ice cream, unpasteurised dairy products.
- Raw mushrooms.

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Prevention cont...

Food Handling

- Wash fruit and vegetables and cutting equipment thoroughly.
- Keep raw and cooked foods separate and use separate cutting boards/knives for raw and cooked food.
- Always cover food to prevent contamination.
- Cook all foods thoroughly and/or reheat all the way through.
- Refrigerate leftovers as soon as cold enough to touch.
- Throw out food if left at room temperature for > 4hours.
- Avoid ready to eat /packaged food.

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Miscarriage

- The chances can range from 10-25%.
- <35 yrs. old -15% chance in healthy women.
- 35-45 yrs. old -20-35%.
- >45 yrs. old -50% chance.
- Previous miscarriage -25%.

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- 20% low progesterone.
- 60-70% Chromosomal, unviable embryo, molar pregnancy, blighted ovum.

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Warning Signs

- Mild to severe back pain (often worse than normal menstrual cramps).
- Weight loss.
- True contractions (very painful happening every 5-20 minutes).
- Brown or bright red bleeding with or without cramps (20-30% of all pregnancies can experience some bleeding in early pregnancy, with about 50% of those resulting in normal pregnancies).
- Tissue with clot like material passing from the vagina.
- A sudden decrease in signs of pregnancy.

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Miscarriage

AETIOLOGY

- 1. Structural** – abnormal Uterus, fibroids, cervical incompetence, placenta growth /implantation.
- 2. Drug Exposure** – caffeine (>3-4 cups), alcohol, tobacco, illicit drugs.
- 3. Infections** – STI's (Chlamydia, Urea plasma, Mycoplasma, Gonorrhoeae), GBS, Staph.
- 4. Immunological** – Any auto, thyroid or sperm antibodies. Antiphospholipid antibody (anticoagulant & anti cardiolipin AB can occur in women with SLE or other immunologic conditions =placental thrombosis, risk for T2 & T3 pregnancy loss.
- 5. Thrombophilia's** – >20wks. Factor V Leiden, Protein C def., Protein S def., Activated Prothrombin C Resistance (APCR), Anti thrombin III def., Gene mutation G20210A. MTHFR mutations –homozygous, father included. ⁽⁴⁾

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Caffeine – The Ugly Truth

- A study of 1,063 pregnant women found that >200mg of caffeine per day (2-3 cups of coffee or 5 cans of caffeinated soft drink) had twice the miscarriage risk compared to no caffeine consumption. (5)
- <200mg caffeine per day was still associated with >40% risk of miscarriage. (3)

How Much Caffeine?

- Drip-percolated = 100-150mg caffeine per 150mL
- Instant coffee = 60-100mg per 150mL
- Espresso = 90-120mg per 150mL
- Cola 375mL = 40mg, Energy drink 250mL = 80-100mg
- 30g chocolate approx. 20-60mg.

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Management: Immune Support – Infection Prevention



- *Echinacea* sp. -1:2, 2-4mL/d. Tablets 2-4g/d
- Vitamin C -1-3g/d –divided doses.
- Vitamin E -200-500IU/d
- Vitamin A (beta-carotene) -1000-2,500IU/d (<10,000IU/d =safe.)
- Zinc -10-40mg/d
- Iron -15-40mg/d
- Bioflavonoids –quercetin, rutin, citrus fruits etc.

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Miscarriage Prevention

1. Progesterone Synthesis; >45 nmol/l =ideal and associated with a viable pregnancy. Luteal Phase Info, Previous blood tests, PMS symptoms.

- Teasel Root *Dipsacus asper* 1:2: 2-4 mL/day. (60% alcohol)
 - Progestogenic activity due to phytosterol derivatives.
 - Traditional use in recurrent miscarriage, uterine bleeding.

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- Chaste tree *Vitex agnus-castus*: 500mg -2g per day (1.5g) 1:2 1-4 mL/day.
 - Support progesterone (P2) via corpus luteum.
 - Contraindicated if taking Crinone/synthetic P2.
- Peony *Paeonia lactiflora* 1:2: 4-8 mL day.
 - Support P2 via corpus luteum.
- B6: 100-240 mg, P5P 25 mg 2-3 per day. -Support P2 via corpus luteum. (7)
- Treat until 14 weeks gestation.

Miscarriage Prevention cont.

2. Improve Blood Flow –support lining of the uterus.

- Movement –lymphatic drainage.
- Hydration/Electrolytes: mineral water, coconut water, rock salt.
- Bioflavonoids: vitamin C, quercetin, flavonoid rich foods (lemons, limes, green pepper, oranges, cherries, grapes).
- Herbs: *Ginkgo biloba* (Ginkgo), *Centella asiatica* (Gotu Kola), *Vitis Vinifera* (Grape seed).

3. Reduce oxidative stress – pregnancy is associated with an increase in OS.

- NAC -600mg up to 20 wks : when combined with 500mcg folic acid was shown to increase the likelihood of a full term pregnancy in women with recurrent pregnancy loss, compared to Folic acid alone. (8)
- Coenzyme Q10: 150mg BD.

Miscarriage Prevention cont.

3. Support normal Blood Clotting – family and/or personal history of recurrent miscarriage (m/c), abnormal clotting factors.

- Turmeric, Ginkgo, Garlic.
- Refer to Thrombophilia Protocol.

4. Autoimmune Tendencies – family Hx, NKC, Antiphospholipid AB's, RA, Psoriasis, SLE etc.

- Echinacea: tablet and liquid options. Therapeutic dose required.
- Mushrooms: Codonopsis, Reishi, Shiitake, Maitake. Liquid & tablet form.
- Adaptogens –regulate stress response and reduce inflammation.

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Thrombophilia Protocol

- Ginkgo Biloba 2:1 3-4 mL per day
- Fish Oil: 3-6 g per day
- Ginger 1:2 ext., 1-2 mL per day
- Garlic enteric coated high potency 2-3 tabs/day
- Turmeric -3-5g equivalent.
- C+ Bioflavonoids, 2-3g per day
- CoQ10, 150 mg morning and lunch.
- Folic Acid –methylated (in multi) in case of MTHFR
- Vitamin E 400-50IU x2 per/day.

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Herbal Use

- True Unicorn (*Aletris farinosa*) –regulator –recurrent m/c –fertility enhancer –prevention of m/c.
- False Unicorn (*Chamaelirium luteum*) –pelvic fullness, congestion, heaviness –acts locally on ovary.
- Squaw Vine (*Mitchella repens*) –traditional use: 20 drops TDS.
- Black Haw (*Viburnum prunifolium*) – m/c prevention -nervine sedative –uterine tonic –fertility & partus prep
- Shatavari (*Asparagus racemosus*) –threatened m/c –female repro & general tonic –rejuvenate –Post Partum
- ⁽⁷⁾
- Teasel Root (*Dipsacus asper*) –threatened and recurrent m/c, bleeding. ⁽⁶⁾

Example Formula

- Hemidesmus 40 mL
- False Unicorn 30 mL
- Black Haw 30 mL
- Squaw Vine 50 mL
- Shatavari 50 mL
- **Total 200 mL**

5mL TDS until 14 wks.

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Nausea & Vomiting in Pregnancy (NVP)

- Symptoms peak between 6-10 weeks, usually resolve by 13-16 weeks.
- Occurs any time of the day or night, and can fluctuate between slight and severe.
- 70-80% of women experience mild –moderate symptoms.
- 50% experience vomiting.

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Triggers:

- Travelling, fried & spicy food, alcohol, strong smells such as coffee, cigarette smoke, perfumes, animal products -meat, fish, dairy & eggs.

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Possible Causes

- Hunger
- Psychosocial –stress, single, lack of support, relationship conflict esp. with own mother.
- Vitamin deficiencies
- Altered carbohydrate metabolism –blood glucose fluctuations.
- Infection –possible *Helicobacter pylori*. (large numbers of women with NVP found to be positive)
- Hormonal –hCG, oestrogen, progesterone, thyroid hormones. (conflicting research)
- Gastric dysrhythmias.

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Management

- **Start early!** Rice crackers, oat cakes, seed crackers before you get out of bed.
- **Eating small, regular meals** to stabilise blood sugar.
Complex CHO; brown rice, wholemeal or spelt pasta, dark dense breads such as Rye, and quinoa.
- **Protein** - Trimester 1 growth and sustaining energy.
Nut butters, nut milks, hummus, feta & goats cheese or yoghurt, good quality protein powders, stews & casseroles.
- **Dehydration** can make symptoms more severe.
Lemon in sparkling water, good quality spring and mineral water -electrolytes.
Coconut water. Pink Himalayan Rock salt on food is good when craving salt.
- **Avoid Triggers** hunger, large meals, fried and spicy foods, travelling, alcohol, strong tasting vegetables. Strong smells such as coffee, perfume & tobacco.
- **Try Acupuncture**

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Treatment

- **Ginger** -most popular, as effective as B6 (11). Liquid Extract –hot or cold, tablets –Bio clinic, fresh, lozenge recipe –courtesy of herbal extract. Fresh grated ginger in cooking, steeped in boiling water as a tea, real ginger ale, crystallised ginger and ginger syrup.
- **Peppermint** is also often used for nausea and you can alternate organic spearmint or peppermint tea with ginger tea.
- **Vitamin B6** –25mg TDS =75mg/day. Up to 14/40 (11)
- **Liver** –methylation, hormone metabolism –P2 Detox 1-2 tsp in bottle with Ginger. Tablets –check all ingredients for safety. E.g.: St Mary's Thistle –simple. Glutathione. Turmeric –category A safety (12)

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Honey, Lemon & Ginger Drops

Ingredients

- 5 tablespoons honey
- 2 teaspoons coconut oil
- Squeeze of lemon juice
- 1 cm ginger

Instructions

1. Melt honey, coconut oil and lemon juice in small saucepan mixing continuously
2. Heat till the mixture starts to bubble, remove from heat and whisk until bubbles cease. Return to heat. Repeat until mixture becomes a dark golden colour, whisking continuously so the mix doesn't burn
3. Remove from heat and allow to cool for 2-3 minutes
4. Add ginger extract and mix till combined
5. Pour the mixture into silicone moulds but do not fill them all the way, drops should be small and thin
6. Cool for 20 minutes then place in the freezer
7. Pop out of mould as needed, as they tend to be sticky
8. Makes 8-10 drops



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Fatigue

Common in T1. Usually improves by T2.

Causes

- Physiological changes, increased energy requirements, nausea & vomiting, sleep disturbances.

Management

- Support –family, partner, social. Sleep & rest.
- Food intake and quality, check status of nutrients –Iron –Act B's (methylation) – Mg, CoQ10.
- Stress mx – massage, meditation, gentle exercise, counselling, herbs.

Adaptogens: S. Ginseng, Astragalus, Rhodiola, Schisandra.

Licorice –Contraindicated in HT, <3mL/d, high grade <-1.5mL/d. K. Ginseng -caution, Rehmannia –caution T1 anti-implantation qualities in animal studies, Withania –not advised in T1 potential emmenagogue/abortifacient effects, Tribulus –CI ?hormonal effects. (9)

- Thyroid function –I2, Se, B6 & Zn.

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Weight Management

- Approximately 50 per cent of women who become pregnant - overweight (BMI>25 - 30) or obese (BMI>30). (13)
- Obese women (BMI > 30) -150ug iodine pre-conception. High dose folate (5mg) due to increased risk of neural tube defects. (13)
- Increased risk of Iron and Vitamin D deficiency.
- Bariatric surgery -close monitoring of nutritional status and foetal growth. May require additional supplementation. (B12, Folate, Iron, Vitamin D, Calcium)
- Relationship between mental health and obesity, and offer psychological support and referral where appropriate.



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Obesity & Increased Risk

Preconception

- Reduced fertility, affect the health of the human oocyte, quality and development of the embryo early in gestation. ⁽¹⁴⁾

Antenatal

- Miscarriage, Gestational diabetes, foetal congenital abnormalities (e.g. neural tube defects).
- antenatal stillbirth, pre-eclampsia, thromboembolism, abnormalities in foetal growth.
- obstructive sleep apnoea, preterm birth -mostly associated with co-morbidities, maternal death. ⁽¹⁴⁾

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Risks cont.

Intrapartum

- Induction of labour, prolonged labour and failure to progress.
- Rate of instrumental delivery, failed instrumental delivery, C-section.
- Shoulder dystocia, difficulties with foetal heart rate monitoring, postpartum haemorrhage, peri partum death. ⁽¹⁴⁾

Post-Partum

- Delayed wound healing and infection, thromboembolic disease.
- Greater likelihood of needing support with breastfeeding.
- Postnatal depression.
- Long term neonatal consequences: neonatal body composition, infant weight gain, obesity. ⁽¹⁴⁾

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Management

- As per non-pregnant. –thyroid function etc.
- Dietary /Nutritional advice. –wholefood, low GI, manage BSL
- Counselling
- Exercise: benefits –increase placental growth & vascularity, reduce oxidative stress & Inflammation, improves endothelial dysfunction.
 - General guidelines: No new activity unless gentle. No high risk or contact sports. Limited endurance exercise. Do not overheat.
- Check BMI kg/m2. Pregnant Normal (BMI 18.5-24.99 kg/m2):
 - Take into account; body shape, muscle to fat ratio, bone structure.
- VLA –body composition.

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**Institute of Medicine:
Weight gain during pregnancy suggested guidelines** ⁽¹⁵⁾

BMI (kg/m ²) (WHO)	Classification	Singleton pregnancy total weight gain range	Rates of weight gain in 2nd and 3rd Trimester (kg/week)
<18.5	Underweight	12.5-18kg	0.51 (0.44- 0.58)
18.5-24.9	Normal	11.5-16kg	0.42 (0.35- 0.50)
25-29.9	Overweight	6.8-11.3kg	0.28 (0.23-0.33)
≥30	Obese	5-9.1kg	0.22 (0.17-0.27)



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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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