PERDAYS
Nourishing the future, today.

Expert Guide
To Pregnancy Nutrition

You're pregnant! Congratulations! We know that this time can be extremely exciting yet also overwhelming. But you got this! This book is designed to help you feel better prepared for your entire pregnancy and provide a healthy foundation for your new bundle of joy.

Ask any mother (or parent for that matter) 'what was the best day of your life?' And It's likely they will answer that it was the day their babies were born. We know that becoming a parent is an exciting goal for millions of people across the globe - the desire for a healthy, happy baby can be a powerful calling! At Perdays, we are passionate about helping these dreams come true.

There is nothing more awe-inspiring than bringing a baby into this world. But, like any good adventure, parenthood requires planning and preparation.

In fact, the path to parenthood starts well before you conceive. The sooner you begin to make a conscious effort to care for your own body, the better the opportunity for good health and wellbeing you offer your future child.

We know, after years of research that the health of parents before, during and immediately after pregnancy can directly impact life-long health outcomes for our children. What we also know is that our food, and our entire diet, is critical in determining several factors of our own and our child's health. Our diet should comprise of a rich array of foods & drinks which provide vitamins, minerals, carbohydrates, fats, proteins, antioxidants, phytochemicals, fibre and H2O in optimal forms and quantities. When we provide this, the body can thrive as it creates the miracle of life! It is common knowledge these days that certain foods may help prevent particular diseases or conditions. And similarly, that certain foods are associated with promoting or maintaining a healthful state. And yet, there still seems to be confusion around how to nourish our bodies and maintain our health before and during pregnancy. Sometimes we forget just how influential our food choices can be in determining our state of wellness (physical and emotional) – and that's something we are dedicated to changing.

Of course, we understand that there is more to a successful pregnancy than just your diet! There are many lifestyle factors which play a crucial role in one's overall sense of wellbeing (pregnant or not), such as exercise, chemical exposure, mental and emotional health, stress levels, social support structures and the health of your primary relationship. But, in many ways, a healthy body creates a foundation which paves the way to creating wellbeing in many other aspects of life. So, this book is our little way of helping you, by sharing knowledge about how to eat well for your wellbeing and that of your little bundle. The information is written by qualified health practitioners and delivered in plain language with easy-to-implement recommendations! You will also learn a bit about each stage of pregnancy and the important changing nutritional needs, so that you can plan ahead.

It's our hope that this resource will help you navigate your food choices – which at times can feel like a completely overwhelming part of pregnancy. This guide will be updated regularly, keeping you up-to-date with the latest science, research and practical knowledge. It will forever be free-of-charge and easily accessible because we believe every woman deserves to feel empowered to make the best health choices for herself and her baby.

The Perdays Team

A note from Stefanie Valakas

Stefanie Valakas
ACPD & Co-writer

As an expert fertility & pregnancy dietitian & nutritionist, over the years I have had the honour of supporting thousands of women as they prepare for pregnancy and navigate the 9 month journey of creating and growing new life using a practical and scientifically founded nutrition advice.

Like me, Perdays is committed to supporting you optimise your nutrition, health and wellbeing – physically and mentally before, during and after pregnancy. We have a vision of empowering and educating hopeful parents and parents-to-be using credible information and the latest research.

This guide has been developed as a useful and practical resource for those of you who are pregnant or planning on having a baby.

There is an overwhelming amount of advice available to you and there are many differing opinions as to what you should and shouldn't be doing when it comes to your health and your nutrition. We have compiled this guide to give you a solid foundation of knowledge from professional pregnancy experts including myself, an Accredited Practising Dietitian and Nutritionist.

If you were to take just one thing away from this guide, you would certainly be doing something beneficial for you or your baby.

Happy Reading,

Stefanie

Stefanie Valakas APD
Expert Fertility Dietitian & Nutritionist

Content

The first 1000 days

The first 1000 days of life, spans from conception through to your baby's 2nd birthday and is a foundational period which shapes the future of your child's health. Research has shown that the health of parents prior to conception, during pregnancy and throughout the earliest years of their child's life affects genetic programming, development and ultimately their wellbeing.

Your baby's brain develops more quickly during the first 1000 days than at any other time. The way the brain moulds and adapts to its environment contributes to the sort of person the baby will grow into. The right nutrition during pregnancy can help support your baby's cognition, physicality, and emotional development.

There are a number of key factors that shape your child's future health during this first 1000 days:

01 **Nutrition and diet**

02 **Exercise**

03 **Environmental exposures**

04 **Stress & emotional wellbeing**

What you're eating, drinking, and exposing yourself to in the lead up to pregnancy, throughout pregnancy and in your child's earliest years all have the potential to shape the health of the next two generations.

If you carry a female fetus, at 20 weeks into the pregnancy all the eggs within your daughter's tiny ovaries are being formed. So, half of the DNA of your future grandchildren is assembled within your own body. It is astounding that we can sculpt the health of three generations in this critical period of the first 1000 days of life.

This book will guide you through some practical, achievable changes designed to support your nutritional health, from pre-conception through to motherhood. With the right information, we can nourish the future, today.

Nutrition over the trimesters

Your nutrient demands are dynamic prior, during and immediately following pregnancy.

Pre-conception
3 months prior to conception

Folate – is recommended at least 400 mcg daily, 1-3 months prior to conception, to ensure there is no deficiency once you conceive. Folate plays a critical role in neural tube defect prevention.

Iodine – supplementation is recommended at 150 mcg daily, 1-3 months prior to conception. Iodine helps to support a healthy thyroid which is crucial for regular ovulation.

Zinc – levels need more attention in the pre-conception period. Zinc supports sperm health and egg maturation.

Vitamin D – is an essential fat-soluble nutrient. It plays a vital role in hormone function and egg quality.

Antioxidants – can be found naturally in dark-pigmented fruit and vegetables, extra virgin olive oil and some herbs and spices. Antioxidants help protect both sperm and eggs from oxidative damage to the DNA (genes) contained in every egg and sperm cell.

Trimester 1
0 – 12 weeks

Folate – requirements increase once you have conceived. Ensure you take your prenatal supplement daily and include dietary sources such as green leafy vegetables, lentils, asparagus, broccoli, avocados, mangos and fortified breads and cereals.

Iodine – remains crucial to support the thyroid gland which supports rapid growth and development of your baby. It's important to maintain intake of this key mineral through supplementation and food sources (such as seaweed, cod, iodised salt, eggs, prunes and some dairy products).

Food Safety – is becoming more important and it's time to leave the soft cheese, raw fish and deli meats behind. With a baby on board, be mindful of food safety and bacteria such as Listeria and Salmonella which can potentially impact your growing baby.

Trimes
13 - 25

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xseed, chia seeds and
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third trimesters. Some new
o suggests there could be
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o - try adding a handful
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r lunch time soup with a
egrain toast with tahini
lp meet the increased
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er day.

Trimester 3
26 – 40 weeks

Gut Microbiome – research has shown that optimising the gut microbiome prior to delivery is important for your baby's future health. Specific probiotic supplements during the third trimester (through to 6 months post-partum when breastfeeding) can help reduce the risk of your baby developing atopic dermatitis or eczema, especially for those with a family history.

Vitamin D – supports immune health. According to new research, adequate intake during pregnancy reduces the risk of your baby developing allergies and asthma.

Energy – your baby is growing dramatically, and weight gain is likely to accelerate at this stage. Caloric requirements have increased by about 450 calories (1900 kilojoules) per day.

Post Birth
First 12 weeks post-partum

Energy – when breastfeeding, energy demands are higher than the third trimester. To help support your needs as well as breastmilk production, women require roughly 500 calories or 2000 additional kilojoules per day.

Fluids – drinking enough water is paramount when breastfeeding. Aim to drink 2.5-3 litres daily and to achieve this, always keep water handy. Many breastfeeding women say they feel thirsty all the time, so find it relatively easy to achieve.

B vitamins – if you are breastfeeding, it is important that you stay nourished to support the nutritional needs of the growing baby. The B group vitamins are essential to numerous functions including metabolism of carbohydrates (ie turning food to energy). Natural sources include whole grains, dark leafy vegetables, eggs, meat, seeds & nuts and legumes. Ensure you also continue to keep up your intake of foods rich in iodine and vitamin C during breastfeeding as these support your baby's immune system.

Preparing for pregnancy

Pre-conception (up to 3 months prior to pregnancy)

Your nutrition and lifestyle prior to conception is crucial to help optimise the health of eggs and sperm, support regular ovulation and can even help increase the chances of implantation. Many women also find some comfort in the fact they prepared themselves well from a nutritional standpoint in the 3 months or so leading up to pregnancy. This can provide peace of mind when you're in the throes of nausea, fatigue and food aversions in the first trimester (and your wonderful, healthy pre-conception diet is a distant memory).

During the 3 month pre-conception period, additional nutrient needs for folate and iodine should be incorporated. This is recommended to avoid the risk of deficiencies prior to pregnancy (to prevent problems during early fetal development). A medical evaluation with your health care provider is best practice to assess your nutrient status.

Focus on adequate fresh vegetables and fruit, wholegrains, meat, poultry or fish (or vegetarian protein alternatives) nuts & seeds, omega 3's, and calcium-rich foods are key to supporting both female and male pre-conception health.

Men also need to be consuming a healthy diet during the pre-conception stage, to ensure healthy sperm and semen.

Pre-conception nutrition checklist for females & males

- [ ] Eat 2 serves of seasonal fruit daily
- [ ] Aim for 3 or more different coloured vegetables at each main meal, prioritise green leafy veggies for folate
- [ ] Use iodised salt in moderation for cooking
- [ ] Use extra virgin olive oil as your primary fat
- [ ] Aim to eat oily fish (wild caught salmon, ocean trout, sardines and mackerel) at least twice per week
- [ ] Aim to eat 6 whole eggs per week
- [ ] At least one meal per week should be vegetarian utilising legumes (lentils, beans, chickpeas) or tofu or tempeh as a source of vegetarian protein
- [ ] Add in a mixture of nuts & seeds most days, including 1 Brazil nut
- [ ] Avoid large fish which pose a greater risk of mercury (deep sea perch, tuna, shark, marlin, swordfish etc)
- [ ] Focus on wholegrain carbohydrates, such as grainy breads, wraps, brown rice, quinoa, and wholemeal pasta (preferably organic) to support uterine lining thickness
- [ ] Include moderate exercise 5-7 days per week
- [ ] Optimise body fat levels prior to conception, where possible
- [ ] Start a prenatal supplement at least 3 months prior to conception

Salmon & Veggie Tray Bake

Preparation Time	Cooking Time	Serves
10 mins	35 mins	2

Ingredients

2 x 150 g salmon fillets

3 medium-sized potatoes, washed

1 head of broccoli, washed

1 large red capsicum, washed

3 tbsp extra virgin olive oil

2 garlic cloves, crushed

1 tbsp fresh dill, washed & chopped

½ lemon, zested & juiced

Iodised salt & pepper to taste

Method

1. Pre-heat oven to 180°C (or 160°C fan-forced).

2. Line two baking trays, one with baking paper for the vegetables and the other with aluminium foil for the salmon.

3. Prepare the vegetables: ensure thoroughly washed and chop into even sized pieces. For extra fibre leave the skin on the potato.

4. Spread evenly onto the tray lined with baking paper and season with 1.5 tbsp of extra virgin olive oil, salt & pepper and freshly crushed garlic (optional: add favourite herbs and spices such as fresh or dried rosemary, thyme, oregano or parsley), ensure all the veggies are evenly coated.

5. Place vegetables in the oven and cook for about 35 minutes or until potatoes are cooked through.

6. Whilst the vegetables are cooking, in a small jar, mix together the remaining 1.5 tbsp extra virgin olive oil, garlic, dill, lemon juice, lemon zest and sea salt. Pour it over the salmon. Fold up the edges of the foil so that the fish is sealed in a pouch. Bake for 15 to 20 minutes or until cooked through (if pregnant).

7. Serve your easy tray bake with some washed mixed greens for a boost of folate.

Trail Mix

Preparation Time
5 mins

Cooking Time
10 mins

Serves
6

Ingredients

100g raw unsalted almonds
100g raw unsalted cashews
60g pumpkin seeds (or pepitas)
12 whole raw Brazil nuts
12 dried apricots
Iodised salt

Method

1. Pre-heat oven to 180°C (or 160°C fan-forced).

2. Line a baking tray with baking paper.

3. In a large bowl, toss almonds, cashews, brazil nuts and pumpkin seeds with salt and place onto the lined baking tray.

4. Place in the oven to dry-roast the nuts for 12 minutes or until slightly browned, every 4 minutes open the oven and give the tray a shake to help roast evenly.

5. Remove from the oven and allow to cool completely, then toss through the dried apricots and store in a large jar for easy snacking!

Trimester one

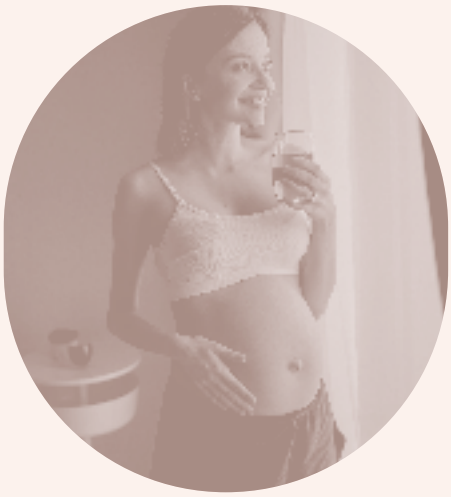
(0-12 weeks)

Congratulations! You are pregnant and you have had at least one visit to your doctor to check your blood work and see how your little one is starting to grow and develop. Alongside the excitement, comes the nausea (experienced by over 90% of pregnant women) which may dampen your enthusiasm for salad, veggies, fish and other proteins.

At this stage, many pregnant women experience anxiety when they find that they cannot eat as healthfully as they had hoped. The good news is that your pre-conception nutritional regime is supporting fetal development but the baby is not demanding any additional calories yet.

However, demands for iodine and folate certainly are increased now. These nutrients are required to support your baby's rapid growth and development in their earliest weeks. In a perfect world, you would get all your nutritional needs from your diet (in the form of green leafy vegetables, fruit, legumes and beans, seaweed, seafood and fortified cereal and bread products).

Adjusting to a pregnancy diet can feel like a minefield of do's and don'ts. So, let this be your trusted guide on what to avoid (to reduce your risk of exposure to harmful bacteria) as well as what to include in your diet to support the health of you and your baby. However, a perfect diet isn't always possible (or practical) so a quality prenatal supplement



can help to support these nutritional needs. Good quality supplements are designed to be a safe, convenient way to bridge nutritional gaps and provide peace-of-mind that you are supporting your baby's health.

Pregnancy nausea is one of the biggest barriers to eating as nutritiously as you had hoped in pregnancy, so, here are some tips to help manage nausea. Let your health care provider know that you're having a hard time with it too; (medical treatments may be an option in extreme cases).

10 tips to combat pregnancy nausea

01

Swap out your 3 main meals for 4-6 small meals per day.

02

Avoid allowing yourself to get too hungry, this is usually when nausea worsens.

03

Try incorporating ginger into your diet. Fresh ginger grated into a stir-fry, 1-2 cups of ginger tea or some ginger ale can help settle nausea.

04

Keep some dry crackers, salted cashews or popcorn at your bedside table in a small container to nibble on as soon as you wake.

05

Choose dry, starchy and salty carbohydrate foods such as crackers, dry toast with toppings, popcorn and salted nuts are generally well tolerated.

06

Take sips of water rather than drinking large volumes at once. Try adding a squeeze of lemon, lime or orange to your water, as citrus fragrances are thought to prevent nausea.

07

Consider eating meals cold rather than hot, the smell and flavour tends to be more subtle which can help when experiencing food aversions.

08

Keep the window open in the kitchen when preparing meals to dissipate smells which may cause nausea.

09

Ask someone to help you with meal preparation and cooking. Your sense of smell is more acute during pregnancy so the smell of certain foods can trigger nausea even if they didn't before.

10

If vomiting, ensure you are rehydrating with water. Also consider using an electrolyte drink to help ensure you are effectively replenishing lost fluids. If vomiting is excessive or persistent, consult your doctor.

Chicken & Vegetable Stir-Fry

tasty

Preparation Time
10 mins

Cooking Time
20 mins

Serves
4

Ingredients

700g of boneless chicken breast or thighs, fat trimmed and cut into bite-sized chunks

1tbsp extra virgin olive oil

1 medium broccoli head, chopped into florets

1 small brown onion, thinly sliced

1 red capsicum, core removed and thinly sliced

1 ½ cup snow peas

1 cup of shredded red cabbage

1tbsp freshly grated ginger

1tbsp freshly crushed garlic

1 lime, juiced

1 tbsp honey

2 tbsp fish sauce

1 tsp reduced sodium soy or tamari sauce

1/3 cup water

1 ½ tsp cornflour

1 ½ cups brown rice (or Basmati rice, if you prefer)

Method

1. Prepare stir-fry sauce by whisking together the honey, fish sauce, soy or tamari sauce, water and corn flour in a small saucepan over a medium-low heat until well combined. Continue to whisk as it thickens, should take about 2-3 mins. Once thickened, remove from the heat and set aside for the stir-fry. You can make more of this sauce and store in a sealed glass jar in the refrigerator for future meals.

2. To prepare the stir-fry, heat a large wok over medium-high heat and add the oil and swirl to coat the bottom of the pan.

3. Scatter the chicken pieces in one layer. Avoid overcrowding the pan. Cook, without moving, until starting to brown on the bottom, about 5 minutes. Stir the chicken and continue to cook until cooked through, about 3 minutes. Transfer the chicken to a clean plate. Repeat this process if you have more chicken than can fit in the pan.

4. Reduce the heat to medium then place the wok back onto the burner. Add the broccoli and cook, stirring frequently until it turns bright green, about 2 minutes.

5. Throw in the onion and red capsicum then cook, stirring frequently until the onions begin to sweat, about 2 minutes.

6. Add the snow peas, ginger and garlic then cook, tossing frequently until the ginger and garlic are fragrant and the snow peas turn a brighter green, about 2 minutes.

7. Stir in the cooked chicken, and then when all of the vegetables are crisp-tender and the chicken reheated, take the wok off of the heat and stir in the stir fry sauce you prepared earlier. As you stir, use tongs or a spoon to scrape the bottom of the pan to lift any bits stuck to the pan and mix into the sauce. Add the lime juice.

8. Serve with freshly cooked brown rice.

Gingerbread Smoothie

5
Preparation Time
5 mins

Serves
5

Ingredients

250mL full-cream milk*

1 frozen or fresh banana

1tbsp chia seeds

1tbsp almond butter

1/3 cup rolled oats

¼tsp of fresh ginger, peeled and finely grated (or 1/8 tsp ground ginger)

½tsp ground cinnamon

Option: 1 tsp of maple syrup or honey

Method

1. Place all ingredients in the blender and blend until smooth, pour into a glass and enjoy!

*You can also choose lite or skim, if you prefer. If using a dairy alternative, ensure it contains at least 100 mg of calcium per 100 mL (refer to the nutrition table on the pack).

Trimester two

(13-25 weeks)

By the second trimester, you should be feeling a little more energetic and the nausea should be subsiding. Your nutrition demands are really going to pick up now, with expanding blood volume to support you and your baby - meaning you need more iron, in fact you will need 50% more iron than you did prior to pregnancy.

Your baby's brain is developing so omega-3 fatty acids are required to optimise brain and cognitive function as well as eye development. It isn't always possible (or practical) to consume sufficient omega 3's through diet alone so, a quality prenatal supplement can help to support these nutritional needs. Good quality supplements are designed to be a safe, convenient way to bridge nutritional gaps and provide peace-of-mind that you are supporting your baby's health.

Constipation in pregnancy is a common complaint. Common causes include; increased circulating progesterone, insufficient water or fibre intake, reduced physical activity, and certain forms of supplemental iron. A few simple changes can help alleviate this uncomfortable problem!

Ensuring you focus on fibre-rich meals full of wholegrains such as oats, grainy bread, brown rice & quinoa and wholegrain crackers, nuts & seeds, legumes & beans, fruit and vegetables can help support regular bowel motions. Engage in regular physical activity (as approved by your health care practitioner), drink at least 2 litres of water per day and choose a low dose (or less-constipating form of) iron supplement.

Your calorie demands are starting to increase, and you can attain these additional 350 calories from a combination of wholegrain sources such as:

- Wholegrain breads
- Wraps
- Brown rice
- Quinoa
- Wholegrain pasta
- Cous Cous

As well as protein sources such as:

- Nuts & nut butters
- Seed butters
- Red meat for iron
- Chicken
- Oily fish such as salmon, anchovies and sardines
- Tofu
- Eggs
- Legumes and beans

Greek Meatballs with Quinoa Salad

15
Preparation Time
15 mins

20
Cooking Time
20 mins

Serves
4

Ingredients

500g lean lamb (or beef mince)
¼ cup fresh parsley, finely chopped
¼ cup fresh mint leaves, finely chopped
1 ½ tsp dried oregano
¼ tsp iodised salt
1 lemon, zested
½ cup plain Greek yoghurt
170 grams quinoa (dry)
2 tomatoes, diced
1 Lebanese cucumber, diced
½ red onion, diced
100 g pasteurised feta cheese, cubed or crumbled
2 cups rocket, washed
3 tbsp balsamic vinegar
1 tbsp extra virgin olive oil

Method

1. Preheat the oven to 200°C and line a baking sheet with baking paper.

2. Prepare the quinoa salad. Cook the quinoa according to the direction on the package. Once cooked, fluff it with a fork and refrigerate for 20 minutes.

3. Whilst that is cooling prepare the meatballs. In a large bowl, add the lamb mince (or beef), parsley, mint, oregano, sea salt and lemon zest. Mix well using your hands. Roll into balls roughly the size of a golf ball and place on the baking sheet. Cook for 15 to 20 minutes.

4. Whilst the meatballs are cooking, chop the vegetables and feta and add everything to a large serving bowl and add the cooled quinoa, balsamic vinegar, extra virgin olive oil and season with iodised salt & black pepper to taste and mix well.

5. Just before serving the quinoa salad alongside the cooked meatballs, add in the rocket and toss well.

6. Serve with Greek yoghurt for dipping.

Black Bean Burrito Bowl

Preparation Time	Cooking Time	Serves
10 mins	35 mins	4

Ingredients

400 grams tinned no-added-salt black beans, drained, rinsed

½ medium red onion, diced

1 garlic clove, crushed

1/2 cup tomato passata (or tinned chopped tomatoes)

1/4 cup water

1 red capsicum

2 tsp taco seasoning

150 g brown rice

1/4 cup mozzarella cheese, grated

1 large tomato, diced

1 whole avocado, smashed

1/2 cup iceberg lettuce, chopped

1/2 cup corn, tinned & drained or blanched from frozen

1 tbsp Extra Virgin Olive Oil

1 lime, cut into wedges for serving

Iodised salt & black pepper to taste

Method

1. Heat olive oil in a saucepan over medium heat.

2. Sautee the garlic and onion, stirring frequently to prevent burning.

3. Add in the tomato passata, water, kidney beans, capsicum and taco seasoning.

4. Cook until thickened and the beans and capsicum have softened. Taste to see if you need more seasoning.

5. Whilst the taco mix is cooking, prepare brown rice as per packet instructions.

6. Spoon the cooked brown rice into a bowl.

7. Top with taco mix, grated mozzarella, tomatoes, crushed avocado, lettuce, corn. Serve with a squeeze of lime juice to help enhance iron absorption from the beans.

Trimester three

(26 - 40 weeks)

Your baby is growing quickly now and you will feel their weight start to increase as you get ready to meet for the first time.

You'll be feeling tired and that's because your energy requirements are now an additional 450 calories per day on top of your pre-pregnancy intake. This additional energy is required to support baby's growth and development.

At this stage optimising your microbiome with diet and a pregnancy-specific probiotic is key to help reduce the risk of your baby developing eczema and/or atopic dermatitis, according to some new research. Improving the vaginal microbiome can help support a healthy environment for your baby to then start their own gut microbiome, should you deliver vaginally.

Iron needs continue to increase as more blood volume expansion occurs. At this point almost all pregnant women will benefit from an iron supplement and a pregnancy supplement to meet the additional demands.

Choline is another crucial nutrient which, according to research, supports a baby's cognitive function in the third trimester. Eating 2 eggs most days of the week (including the yolk) is a great way to boost your choline intake.

You may notice your appetite decreasing as more and more abdominal real estate is being occupied by your growing baby, forcing you to reduce meal sizes as your stomach capacity shrinks! And this may also increase symptoms of reflux or heartburn as the hormone relaxin, comes rushing in helping your muscles loosen and prepare for delivery! Try focusing on nutritious and dense liquids such as smoothies and soups, which are nutritious but less bulky.

The third trimester is also the perfect time to start your post-partum meal preparation. Having healthy nutritious meals ready for you to access from the freezer when you're sleep deprived can be really helpful. A nutritious diet supports a speedy post-birth recovery, so planning and preparation is key to help you avoid reaching for those last-minute, not-so-good choices!

Don't forget to pack some snacks for you and your birthing partner during labour as it can be a long process and healthy sustenance should be on hand! These can also be handy during the immediate post-birth hours after the hard work!

Kale & Red Capsicum Frittata

Preparation Time
10 mins

Cooking Time
30 mins

Serves
4

Ingredients

8 eggs
120mL full cream milk
4 large kale leaves, washed & chopped
1 red capsicum, diced
150 g cherry tomatoes, halved
½ cup tasty or cheddar cheese, grated
1tbsp extra virgin olive oil
Iodised salt & pepper, to taste

Method

1. Pre-heat the oven to 200°C (or 180°C fan-forced).

2. Whisk the eggs, milk, cheese iodised salt & pepper together in a mixing bowl. Set aside.

3. Heat the oil in cast iron pan over a medium heat. Add the kale, red capsicum and tomatoes. Cook for 5-7 minutes, or until the kale is wilted and capsicum is tender.

4. Pour the whisked eggs mixtures into the pan with the vegetables and let the eggs begin to set for about 30 seconds, before gently stirring with a spatula to ensure the vegetables are well incorporated into the eggs. Transfer the pan to the oven and bake for 12-15 minutes or until the eggs are set (if you are pregnant, ensure the eggs are well-cooked).

5. Remove the pan from the oven and let sit for about 5 minutes before cutting into wedges. Serve and enjoy with a mixed green side salad!

Creamy Turmeric Pumpkin Soup

15
Preparation Time
15 mins

1h15m
Cooking Time
1 hr 15 mins

Serves
4

Ingredients

300g butternut pumpkin, peeled & chopped into 1 cm cubes

400g no-added-salt tinned chickpeas, drained & rinsed

1 brown onion, diced

2 garlic cloves, crushed

1tsp turmeric

¼tsp cinnamon

500mL vegetable stock

270mL light coconut milk

3tbsp extra virgin olive oil

Iodised salt & black pepper

Method

1. In a large saucepan, add the oil and heat on medium. Add the onion and cook for 3-5 minutes until just softened. Add the garlic, turmeric, salt, pepper and cinnamon. Stir to combine and cook for a further minute.

2. Add diced pumpkin and sauté in the spices for about 3 minutes, stirring regularly.

3. Add the vegetable stock and bring the soup to a gentle boil and allow to simmer for 30 minutes and allow the flavours to come together.

4. Add the tinned chickpeas (drained and thoroughly rinsed) and coconut milk to the soup and stir. Take the pot off the heat. Using a stick blender (or transfer to a blender and) blitz until completely smooth. Season further if needed.

5. Serve with crusty sourdough!

Post partum

(First 12 weeks post-partum)

Taking care of your body and mind post-partum is crucial to support your body's recovery. Your needs in the first 3 months post-partum are particularly important as your body heals and replenishes lost nutrients.

Therefore, after the birth (whether c-section or vaginal) repairing damaged tissue increases the body's demands for protein, zinc and vitamins. It's advisable to increase dietary sources to promote wound healing.

Foods that are rich in zinc:

- Nuts & seeds like cashews, almonds & pumpkin seeds
- Red meat
- Chicken
- Eggs
- Fish & seafood
- Legumes & beans: chickpeas, lentils, black beans & kidney beans
- Wholegrains such as oats, breads, rice, quinoa
- Dairy foods

Foods that are rich in vitamin C:

- Fruit including guavas, kiwis, lychees, papayas, strawberries and citrus.
- Capsicums
- Tomatoes
- Spinach
- Broccoli

Nutritional demands vary depending on whether you are breastfeeding or not. If you are breastfeeding or planning to, then you need to be focusing on the following in your diet.

01

Energy

When breastfeeding, energy demands are actually even higher than they were in the third trimester. Ensuring a consistent supply of nutrient-rich calories will help you sustain the additional fat stores you built during pregnancy to support breastmilk production and of course to actually make the nutritious breastmilk itself. This works out on average to be about 500 calories or 2000 kilojoules per day in addition to what you required during. This is designed to support pregnancy which is designed to support breastmilk production as well as keep your own body nourished and energised for the job of looking after your precious new baby. Therefore, you should be eating more frequently, or focusing on larger or more energy-dense meals or some nourishing snacks like bliss balls, for example. The Eat for Health guidelines state these additional calories should be sourced from wholegrains and also additional servings of vegetables.

02

Fluids

Hydration is critical when breastfeeding, after all breastmilk is a fluid. Keeping water bottles close by in your favourite feeding spots, your bag or pram and at your bedside so you can sip whilst you feed your little one is crucial to maintaining adequate hydration.

03

Omega-3s

These essential fatty acids found primarily in oily fish such as salmon, trout, mackerel, sardines and anchovies, as well as chia seeds and flaxseed oil help support the omega-3 content of breastmilk which is important to facilitate your baby's brain development.

04

Iodine

Interestingly, requirements for iodine during breastfeeding surpass the level needed during pregnancy. This is why incorporating a supplement post-partum whilst breastfeeding is crucial. Research shows 62% of women of reproductive age are not meeting the minimum iodine level through their diet alone.

05

B Vitamins

B Vitamins are responsible for generating energy and also helping us better extract energy from the food that we eat. Several B vitamins are particularly important in the post-partum period when energy is crucial, especially when feeling sleep deprived. Notably, requirements for vitamin B6 and B12 both increase particularly when breastfeeding. Eating a wide variety of fruit, vegetables, wholegrains and cereals and animal proteins such as meat, fish, chicken and eggs can help meet your requirements. If you're vegetarian or vegan, be particularly mindful of vitamin B12, and ensure you take a supplement containing vitamin B12 to avoid you or your baby becoming deficient whilst breastfeeding.

06

Vitamin C

Particularly for mothers who birth via C-section, adequate vitamin C can help support wound healing in the weeks and months after delivery. Eating an abundance of seasonal fresh or frozen fruits and vegetables will assist you to meet vitamin C requirements for post-partum healing and breastfeeding. This is one of the reasons why it is important to increase your vegetable servings (from 5) to 7 serves per day during breastfeeding.

Coconut & Cashew Bliss Balls

10
Preparation Time
10 mins

Serves
12

Ingredients

1 cup raw cashews
1 cup shredded coconut
½ cup pitted Medjool dates
1 large lemon, zested
½ lemon, juiced
½ tsp pure vanilla extract

great snack

Method

1. Pulse the cashews and coconut in a food processor until it forms a course meal.

2. Add the remaining ingredients and pulse until combined. Avoid over-processing, it should not be completely smooth.

3. With clean hands, roll 1 tablespoon of mix into a ball.

4. Snack immediately or store in the fridge in an air tight container.

coconut

raw cashews

Shepherd's Pie

Preparation Time	Cooking Time	Serves
10 mins	50 mins	4

Ingredients

1 large onion, chopped
2 stalks celery, chopped
1 large carrot, chopped
2 cloves garlic, chopped
Extra virgin olive oil
400g lean lamb or beef mince
½ cup green lentils
1 cup salt-reduced beef stock
1 cup water
400g can salt-reduced whole tomatoes
2 ½ cups chopped field mushrooms
1 teaspoon salt-reduced soy sauce
1 teaspoon Worcester sauce
¼ cup wine (optional)
Topping
3 large floury potatoes
50g feta cheese

Method

1. Heat the olive oil in a large, heavy-based pan over moderate heat. Add onion, garlic, celery and carrot and cook gently until onions are soft but not brown.

2. Add beef to pan and brown for about 5 minutes. Add tomatoes, stock, water, lentils mushrooms and sauces. Bring to the boil, then reduce heat and simmer gently for around 1 hour, adding more liquid if you need to.

3. Add wine about 40 minutes into cooking time. You should end up with a richly coloured, deeply flavoured mixture without too much liquid.

4. Preheat oven to 180°C. While the meat is simmering, cook the potatoes. Peel and chop potatoes into even-sized pieces, cover with cold water and bring to the boil in a large pot. Cook until tender, then drain and mash.

5. Chop cheese into small chunks and beat into the mash with a fork, blending well.

6. Spread meat mixture in the bottom of a large oval casserole dish, and spread mash over the top. Place in oven and cook until top has crisped and browned a little. Remove from oven and let stand for 5 minutes before serving with a side of green vegetables (e.g. steamed broccoli and green beans or a garden salad).

Pregnancy weight gain

Naturally, growing a whole other human is going to require additional energy and result in weight gain.

Did you know that the weight you gain during pregnancy is not just your baby's weight? In fact, weight gain is attributed to a variety of biological changes that take place during pregnancy.

These numbers are approximate and will vary based on pre-conception weight:

- Baby 3-4 kg
- Placenta 0.5-07 kg
- Breasts 0.5 kg
- Amniotic fluid 1-1.5 kg
- Uterus 1-1.6 kg
- Extra blood volume 1.5 kg
- Fat stores laid down for breastfeeding 2.5-3.5 kg
- Fluid retention 1.5 kg

Interestingly, pregnant women acknowledge that weight gain in pregnancy is important or essential to know about (Bookari, Yeatman & Williamson, 2016). However, less than 30% are able to correctly identify the recommended gestational weight gain target for them (Bookari, Yeatman & Williamson, 2016).

Pregnancy weight gain guidelines are based around individual pre-conception BMI readings.

Usually, weight gain in the first trimester for those in a BMI range of 18.5 and above should be no more than 0-2 kg. This is because that even by the end of the first trimester your baby is only as big as a plum, so weight gain is typically only fat and fluid. In the second and third trimesters, the energy demands (as previously discussed) mean that weight gain targets each week become more important to monitor. Regular weight checks with your health care provider (or at home on the same scales) is the most simple and effective way to keep track and stay within the ideal range. After all, if you're gaining too much or not enough and find out many weeks after the fact, it can be challenging to "course correct" without compromising your nutritional status.

If you have a history of weight concerns, disordered eating or an eating disorder, it is critical you work with your health care team for individualised care, support and guidance. This support will be valuable during preconception and throughout the pregnancy to ensure physical and mental wellbeing for you both.

It is important you speak to your health care provider such as your GP, midwife, obstetrician, naturopath or dietitian if you have any concerns about your weight during pregnancy.

Estimate your recommended weight gain range:

Pre-pregnancy BMI (kg/m^2)	Total weight gain range for pregnancy (kg)	Rate of weight gain (kg) per week starting for the 2nd & 3rd trimester
< 18.5	12.5 - 18	0.5
18.5 - 24.9	11.5 - 16	0.5
25.0 - 29.9	7 - 11.5	0.3
> 30	5 - 9	0.3

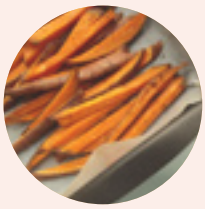
* These calculations assume 0 - 2 kg weight gain in first trimester

Pregnancy cravings

Cravings and food aversions (or avoiding foods) are common in pregnancy and can leave you feeling as though your diet hardly resembles what it used to look like before pregnancy. This is totally normal, however, there are a few nutritious swaps you can make and still hit the spot when it comes to satisfying those cravings!

Swap

Hot chips



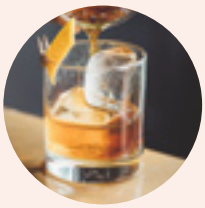
Homemade oven-baked chips with white or sweet potato

Ice-cream

Frozen greek yoghurt pops

Chocolate

Hot Chocolate made with milk of choice



Alcohol

Flavoured sparkling water or zero alcohol wine

Can't satisfy your craving with a substitute? Portion out the amount you intend to eat in a bowl or plate and sit down and enjoy it mindfully, away from the screens to avoid mindless non-hungry eating and savour the indulgence! It is not about having the perfect diet, but rather, about doing your best most of the time whilst still enjoying life.

If you're having a hard time maintaining healthful eating, consult with a naturopath, nutritionist or dietitian who specialises in pregnancy and fertility.

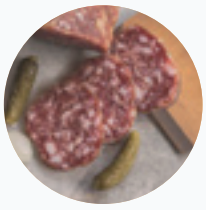
Food safety tip sheet

If you are waiting for a blood test to confirm your pregnancy, it is best practice to treat yourself like you're pregnant! Which means no alcohol, soft unpasteurised cheeses or any other foods that put you at a high risk of bacteria which may be particularly harmful to you or your baby during early pregnancy.

Please note: some of these foods may be safe where you live, so always read the label. If unsure, check with your local food authority guidelines on what is safe for pregnancy.

Avoid

Soft unpasteurised cheeses such as blue, brie, gorgonzola & goat cheeses



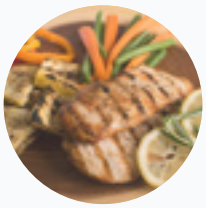
Cold cuts or deli meats such as salami, ham, turkey

Runny egg yolk

Raw fish or meat, and rare-cooked meat

Safe

Cheddar, parmesan, tasty and hard cheeses



Freshly grilled chicken or turkey breast

Hard boiled egg

Well done meat

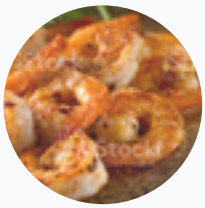
Avoid

Rare or medium cooked meat

Fermented foods such as sauerkraut & kombucha

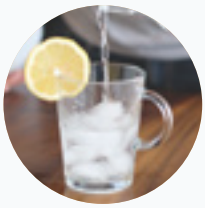
Alcohol

Safe



Cooked from raw prawns served hot

Salad



Water (sparkling or still)

A few more tips about food safety

01. Avoid unpasteurised mayonnaise (check the label) due to raw egg content increasing your risk of Salmonella poisoning

02. Avoid unpasteurised dairy milk and products (e.g. raw milk, goat's cheese). Avoid mercury-rich fish such as flake (or shark), swordfish, marlin, broadbill, catfish, orange roughy.

03. Cook all proteins well - salmon, red meat, chicken, white fish

04. Limit tinned fish to twice per week

05. Avoid offal or organ meats or pate due to high vitamin A content

06. Avoid soft-serve ice creams - the cracks in the machine is where bacteria can breed!

07. Avoid pre-cut salads and fruit, buy fresh, wash well and chop yourself. Ensure all leftovers are consumed within 48 hours, cover and refrigerate immediately below 5°C (41°F) after cooking and reheat until hot above 60°C (140°F)

Understanding the danger zone

Keep foods out of the temperature danger zone (between 5°C to 60°C or 41°F to 140°F) as this is where dangerous bacteria such as Listeria & Salmonella can grow to high levels and affect you and your bub.

Keep food either below 5°C (41°F) by placing it in the fridge or freezer to stop these bacteria from multiplying. And hot foods should be heated to above 60°C (140°F) to kill off any dangerous bacteria.

Your pregnancy shopping list

This list is merely a starting point toward building a nutritious pregnancy-friendly kitchen. This may (and should) change based on the seasonal variation of fruits and vegetables.

Adjusting your diet according to the local season improves the likelihood of eating fresh, nutrient-rich produce - and can be more economical too!

01 Fruits

- [ ] Banana
- [ ] Berries (fresh or frozen)
- [ ] Apples
- [ ] Use extra virgin olive oil as your primary fat
- [ ] Oranges
- [ ] Kiwifruit
- [ ] Watermelon (whole)

02 Vegetables

- [ ] Broccoli
- [ ] Carrots
- [ ] Cucumber
- [ ] Tomatoes
- [ ] Baby spinach
- [ ] Zucchini
- [ ] Asparagus
- [ ] Capsicum
- [ ] Kale
- [ ] Pumpkin
- [ ] White Potato
- [ ] Sweet Potato
- [ ] Beetroot
- [ ] Purple cabbage

03 Wholegrains

- Brown rice
- Quinoa
- Wholemeal or Pulse Pasta
- Grainy bread or wraps
- Pearl barley

04 Dairy foods

- Full-cream milk (or calcium-fortified milk alternative – look for at least 120 mg calcium per 100 mL on the nutrition label)
- Plain unsweetened Greek yoghurt
- Hard cheese (e.g. cheddar)

05 Protein foods

- Tinned sardines or tinned salmon
- Fresh salmon
- Chicken
- Eggs
- Lean mince (beef, pork, veal, lamb)
- Lentils-tinned or dried
- 4 bean mix - tinned
- Chickpeas - tinned
- Kindey beans - tinned

06 Fats & other

- 100% Peanut or almond butter
- Avocado
- Extra virgin olive oil
- Nuts & seeds (Brazil nuts, walnuts, cashews, almonds, pepitas, sesame seeds, linseeds and sunflower seeds – mix it up!)
- Organic flaxseed oil (keep refrigerated)
- Fresh or dried herbs & spices

Supplementation in the first 1000 days

Taking a specially formulated, high-quality prenatal multi-nutrient supplement is recommended. Appropriate supplementation can be of benefit throughout the 3 key stages; 1-3 months prior to conception, during pregnancy and post-partum.

As you now know, nutrient demands are always changing as your body and your baby undergo phenomenal changes together.

Vitamin A

Switching from your standard multivitamin to a specially formulated pregnancy supplement can be a simple way reduce risks associated with certain vitamins. For example, high levels of retinol (Vitamin A) should be avoided during pregnancy. A supplement containing beta-carotene (the precursor to vitamin A) is safer as the body can safely control how much is converted into vitamin A.

Folate

During pre-conception it is recommended to supplement with at least 400 mcg of folate and 150 mcg iodine per day according to the Australian government guidelines. It is known that some women are unable to convert folic acid (the synthetic form of folate) found in many conventional prenatal supplement products into the active form, called folate. Folate undergoes several processes within the body which enables it to perform its crucial role in protecting the genetic material within your cells, supporting cell replication and reduces the risk of neural tube defects. High quality pregnancy supplements (containing folate) use an activated form thereby optimising absorption for increased utilisation by the body. Some activated forms include folinic acid, methylated folate or levomefolate.

Whilst these nutrients are emphasised, we also know that topping up on essential nutrients for optimal reproductive health such as vitamin D, iron, zinc, B vitamins and omega-3 fatty acids help to support female reproductive function including egg quality.

A prenatal multi is usually a great option to cover your bases. Of course, look to your health care practitioner for customised advice based on your history, bloodwork and other personal health circumstances.

Supplements are not intended to replace a well-balanced and nutritious diet in pregnancy, but are designed to address nutritional gaps, ensuring you and your baby both have what you need to grow and thrive. After all, the practicality of eating as well as you had hoped during your pregnancy may differ from the reality, particularly if you are experiencing symptoms such as constipation, reflux or heartburn, nausea and are feeling too tired to prepare healthy meals!

During the first trimester, these nutrients remain important to support your baby's organ growth, which happens in their very early stages of development. Many women often ask if it's okay to discontinue their prenatal supplement after 12 weeks, as the neural tube has closed.

Whilst it's true that the neural tube has now sealed, keeping up with huge nutrient demands throughout the second and third trimester through diet alone is a challenge for many! **New Australian research showed that only 4 out of 534 women in their third trimester were able to meet their nutrient targets for calcium, iodine, iron, zinc and dietary fibre through diet alone.**

Iron requirements and omega-3s as well as vitamin D status become crucially important to review regularly during the second and third trimesters. Very often, dietary intake alone is unable to meet the needs, especially with nutrients such as iron where demands are very high at 27 mg per day. The average 100 gram beef steak (one of the most absorbable forms of iron) only provides 3 mg of iron, with less than 1/3 of that being taken up by the body. And eating close to 1 kilogram of red meat daily is not only impractical but not advised in a healthy eating plan. It can be tricky to achieve a well-balanced and varied diet to meet iron requirements in pregnancy without supplementary support.

Interestingly, a growing body of research is indicating that probiotic use is of value during all stages of pregnancy, and into post-partum. There are a number of specific strains linked to benefits (for you and your baby), so choose a probiotic formula designed for pregnancy.

Post-partum is often a time when women think about stopping their prenatal supplements, but if you are sustaining a new baby, nutrient needs during breastfeeding can actually be greater than during pregnancy (particularly vitamin C, B6, B12 and iodine). It is best to continue your prenatal supplement for at least 6 weeks post-partum (even if not breastfeeding) to help replete nutrient stores, which may have diminished during pregnancy. It is advised to have a blood test to check your levels of iron, B12, vitamin D and other nutrients to provide visibility of any anomalies. Your status will depend on what happened during pregnancy and birth, as well as your general diet and supplement regime. Even the season may have an impact on nutrients, for example Vitamin D levels are typically lower during winter months.

Nutrient deficiencies in iron, omega-3s and some B vitamins have been linked to an increased risk of mood disturbances including post-partum depression and anxiety. Therefore, a quality prenatal supplement is a valuable component of a healthy preconception, pregnancy and post-partum journey. Combined with a caring and skilled health care team and a nutritious, well balanced diet, you are doing best for yourself and your baby.

Male fertility Q&A with Gerald Quigley

Gerald Quigley
Pharmacist, Master Herbalist,
and prominent media health commentator

Q: What impact does male pre-conception health have on the likelihood of conception?

A: It seems that many couples are delaying having children. More than ever the causes of male factor infertility are being investigated. Sperm production is a lengthy process, taking between 72 to 76 days from initial cell division to the appearance of mature sperm. Therefore, many factors potentially affecting male health including medications, smoking and infection can be involved. The fertile window in the female is best defined as the 6-day interval ending on the day of ovulation. Timing of sexual intercourse in relation to ovulation - effects on the probability of conception, survival of the pregnancy and sex of the baby. (NEJM 1995;333:1517-21).

Q: Is a pre-conception multi-vitamin important to support sperm health?

A: Of course. In a male, a combination of antioxidants and amino acids appears to be useful for the health of sperm, thus leading to an increased chance of optimal fertility. Coenzyme Q10 for example, plays a role in all energy dependent processes, and is also required for the maintenance of healthy cell membrane integrity and cell functioning. Zinc plays an important role in sperm health by increasing sperm count, shape and structure. Comparisons of zinc concentration in blood and seminal plasma (and various sperm parameters) show variations between fertile and infertile men. Comprehensive formulations recommended by a health practitioner are reassuring and supporting all round.

Q: Do interventions in lifestyle, food choices or supplements improve sperm health?

A: The concept of nutrient repletion suggests that a three-month time frame is the minimum needed to correct deficiencies. Healthy fertility occurs when an individual's health is optimal. Appropriate dietary advice and lifestyle corrections are obvious but often overlooked. Health practitioners proficient in these roles are important team members. Supplements, as appropriately advised, fill nutritional gaps which have been identified.

Q: Should I be concerned about the safety or purity of the supplements I take?

A: The short answer is "no" – we can be reassured over and over that our regulatory authority is amongst the most stringent in the world. That means that you should avoid the many online offers to help you. These unlisted and unregulated products avoid the scrutiny given to products which have been through the Australian regulatory system. Seek advice from your healthcare professional if you have any concerns.

Q: Is ashwagandha beneficial in supporting male fertility and is it safe?

A: Ashwagandha (also known as withania somnifera or indian ginseng) has been used in Traditional Chinese Medicine as an adaptogen, meaning that it reduces the negative effects of chronic stress. Several clinical trials also suggest a possible role in male infertility. Sperm concentration, sperm volume and motility were increased. Ashwagandha improves semen quality by regulating reproductive hormone levels and oxidative stress in seminal plasma of infertile males.

Stress has been reported to be a causative factor for male infertility. Ashwagandha has has been documented in the Ayurvedic (Indian) medicine system for its stress-combating properties. Ashwagandha treatment resulted in a decrease of stress, improved the level of anti-oxidants and improved overall semen quality in a significant number of individuals.

Q: What about coffee and alcohol?

A: Caffeine consumption has been linked to an increased time to conception. Alcohol impairs gonadal function and is associated with defective sperm morphology, impaired sperm motility and lowered sperm counts. Logically, to maximise fertility, both caffeine and alcohol should be avoided.

Q: What are some simple strategies to maximize male reproductive health?

A: There are two basics here. Improve fertility potential and relative fertility factors by seeking guidance from healthcare professionals. Appropriate supplements are vital and support optimal general health.

Q: Does fish oil play a role in male fertility?

A: Yes, supplementation with omega-3 fatty acids increases sperm count, concentration and motility, as well as decreasing DNA fragmentation.

The pregnancy microbiomes

The microbiome

The gut microbiome is a community of bacteria and other microorganisms that predominantly live in your large intestine or bowel. New research in recent years has begun to highlight the importance of the gut microbiome when it comes to many different aspects of our health including immune health, mental health and mood, as well as digestive health.

The development of the human gut microbiome begins before birth and continues to grow and evolve as your baby gets older.

The progress and health of the microbiome is affected by many factors including:

- Diet of both mother and baby
- Mode of delivery
- Environmental exposures including having pets around
- Antibiotic use
- Probiotic use
- All forms of stress

Pregnancy and the earliest years of your baby's life are vitally important times to be looking after the gut microbiome in particular, as the composition of the gut microbiome is beginning to be linked with the future health of your baby.

A study involving pregnant women was conducted where they were given Lactobacillus rhamnosus HN001 in their third trimester until 6 months postpartum whilst breastfeeding. This study showed that probiotic supplementation during pregnancy and breastfeeding significantly reduced the risk of a baby developing eczema throughout the first 2 years of life, which was maintained until the children in the study turned 10 (Wickens et al., 2018).

An incredibly distressing condition, eczema is often an early warning sign of the potential to develop other conditions (eg allergies) and which affects 1 in 10 Australian children up to one year of age (ASCIA).

The pregnancy microbiomes

As mentioned earlier, the health and composition of the gut microbiome can impact mental health. This mechanism, referred to as the gut-brain axis is a two way “highway” connection between the brain and the gut. Have you ever been nervous and simultaneously have the feeling of butterflies in your stomach?

A vast number of the neurotransmitters which play a role in our emotional state, are created in the gut. So it’s no surprise that we can influence our sense of wellbeing when we alter the gut environment. Probiotics are a crucial player in gut function and recent research confirms this link (Slykerman et al., 2017).

It is important to note, that if you are experiencing any mental health concerns, before, during or after pregnancy, it is strongly advised that you seek the advice of a health care professional to ensure you receive the support and care you need for wellbeing.

Besides the gut microbiome and its potential role in the health of your pregnancy and baby. The vaginal microbiome is another crucial area to focus on during the first 1000 days of life. The vaginal microbiome is dominated by the Lactobacillus family of bacteria which helps to promote the right pH balance, warding off any not-so-friendly bacteria colonising your vagina. Group B Streptococcus, or (GBS) is a common vaginal infection that can occur in pregnancy and upon detection, should be treated promptly (generally with antibiotics). Research shows that taking a probiotic in both early pregnancy and during the final trimester can reduce the rates of infection with GBS in pregnant women. A further added benefit of probiotic use during pregnancy.

Prior to adding supplements into your daily diet, consult your health care practitioner or GP. Dietary supplements do not replace a balanced diet.

The best way to enhance the health of both the gut microbiome and the vaginal microbiome.

01

Eat a wide variety of plant-based food each week, including fruit, vegetables, nuts, seeds, wholegrains, legumes and beans as well as herbs and spices.

02

Consider incorporating safe fermented foods into your diet during pregnancy such as yoghurt and kefir.

03

Manage stress levels with techniques such as meditation, breathwork and gentle exercise. Find the method that is best for you.

04

Take a pregnancy-specific probiotic prior to and during pregnancy (and post-partum particularly if breastfeeding). Select a formula that contains Lactobacillus rhamnosus GG, Lactobacillus rhamnosus HN001, Lactobacillus reuteri, Lactobacillus salivarius amongst other important strains to promote optimal outcomes for you and your baby.

FAQ'S

01 Caffeine

Many of us can barely face the day without a cup of black tea or coffee so do you need to farewell your morning cuppa?

During the pre-conception period and throughout pregnancy, it is recommended that caffeine intake be reduced to less than 200 mg per day. When caffeine is consumed at or below this level, there is limited research to show any impact on fertility or pregnancy health and outcomes.

How much caffeine is in your favourite drink or chocolate?

- 1 shot of espresso (a regular flat white from your local coffee shop) has on average 90-120 mg of caffeine
- 1 teaspoon of instant coffee has about 60mg of caffeine
- 1 cup of percolated coffee has about 100-125 mg of caffeine
- Black tea has about 50 mg of caffeine
- Green tea has about 30 mg of caffeine
- 60g of milk or dark chocolate can have up to 40 mg of caffeine
- A 375ml can of coke has 30-40 mg of caffeine
- Energy drinks can have over 110 mg of caffeine

During pregnancy, many women become averse to the smell and or taste of their (previously) favourite caffinated drink. Decaffeinated options have 1% of the total usual caffeine in that product, so you can use decaf coffee or teas instead to get your warm drink fix.

Be mindful there are some herbal teas, even though naturally caffeine free, may be best to avoid in pregnancy including ginseng tea and chamomile tea. Other teas that you should not drink in excess, ginger, green, hibiscus, lemongrass, rooibos tea. Limit to 1 cup or less per day.

What about when breastfeeding?

Whilst caffeine does enter the blood stream and also breast milk, it is only at a rate of 1%. So, if you have 100 mg of caffeine in a cup of coffee, your breastmilk will contain approximately 1 mg of caffeine. The level of caffeine in your blood will be at its highest 60 minutes after drinking your caffeinated drink. If you notice your baby being more unsettled, you can trial decaf instead and see if it makes a difference (Australian Breastfeeding Association). Newborns seem to be a little more sensitive to caffeine as it takes them longer the process it compared to older infants of 3-4 months of age.

So the good news is, most women can safely enjoy caffeine in moderation before, during and after pregnancy! Note for men: during the preconception phase, he should also be reducing caffeine intake to support optimal sperm health.

02 Alcohol

These days it's widely accepted that alcohol consumption should be completely avoided during pregnancy. However, many people ask if they can safely enjoy an occasional alcoholic drink whilst preparing for pregnancy.

In an ideal world, alcohol intake should be limited to as close to zero as possible in the pre-conception window. High levels of alcohol intake can impact both egg and sperm quality. Women should aim for less than 7 standard drinks per week, with 0-2 standard drinks per week being cited as the preferred limit. For men, the advisable safe limit is, less than 2 standard drinks per day, with at least 2 alcohol free days per week.

After 9 months of abstaining from alcohol during pregnancy, (and sometimes longer for those who opted-out prior to conception), turning down a glass can be tough! Whilst breastfeeding, alcohol in the bloodstream is present at the same concentration in your breast milk. The safety of your milk in terms of its alcohol content can depend on your body weight, what you've eaten, the amount of alcohol you drank (and the alcohol %), along with how quickly you are drinking the alcohol. The best way to see if your breastmilk is safe for your baby is to use the FeedSafe app by the Australian Breastfeeding Association, it provides a handy countdown timer based on the factors just mentioned.

Some tips if you're avoiding alcohol during this time:

01

Have a go-to non-alcoholic drink such as a mocktail or a sparkling water with some lemon or lime slices in a short glass (so nobody asks what you're drinking!). Fortunately, there is also a great range of non-alcoholic wines, beers and even spirit alternatives now available on the market.

02

Be prepared for people to ask why you are choosing not to drink. If you are not ready to disclose that you are pregnant (or trying to conceive), have a couple of excuses on-the-ready. For example, you're the designated driver or you're doing a cleanse, or want to wake up fresh for your 5am run tomorrow!

03 Sugar & salt

Many women, especially during pregnancy, find that they are no longer interested in the usual range of foods they were eating prior to pregnancy. You may find that vegetables, meat and fish all sound really unappealing! And foods that are higher in sugar and salt such as chocolate, ice-cream, chips or crackers are more your flavour now.

Whilst this is completely normal, (and it is important to incorporate foods you enjoy into your pregnancy diet), too much processed sugar or salt can impact your intake of healthier foods. When nutritious foods such as vegetables, meats, nuts and grains are replaced with empty calories (like processed, sugary foods) this can lower your nutrient status and also result in unnecessary weight gain.

Added sugar differs from sugar occurring naturally in foods, as it offers little or no nutritional value. In fact, added sugar draws on your body's valuable nutrient resources in order to be processed. The World Health Organisation recommends limiting added sugars to less than 6 teaspoons daily, which is about 25 grams of added sugar. However, this guideline is for the general population and no (sugar intake) information specific to pregnancy has been provided at this stage.

Salt, also know as sodium, can increase blood pressure in some individuals, so be cautious if you have a history of hypertension (or other health issues relating to blood pressure). The recommended limit is less than 120 mg per 100 grams, and an okay amount is less than 400 mg per 100 grams. Foods high in salt can cause an increase in natural fluid retention, which most women experience to some degree in the latter part of pregnancy.

If in doubt, seek dietary advice from a qualified health care professional, naturopath, nutritionist or dietitian who can help you create a customised meal plan.

04

Endocrine disrupting chemicals (EDCs)

Endocrine Disrupting Chemicals (EDCs) are a group of chemicals that have the potential to mimic our body's hormones and potentially cause harm to our reproductive function, this applies to both males and females. EDCs can be found in a variety of different places from your bathroom and hygiene supplies. Bisphenol A (BPA) is one of the most well-known EDCs commonly found in plastics, thermal receipts, disposable water bottles, canned food linings and hygiene products.

EDCs can impact both egg and sperm quality and interfere with menstrual cycle regularity which can be an often-overlooked aspect of pre-conception and pregnancy health.

It is important to take stock of your cleaning supplies, personal hygiene, make-up and haircare – however, research shows the biggest impact on our EDC levels comes from our dietary exposure! (Geens et al., 2012) One research study showed that after 3 days of switching from a diet containing more packaged and processed .foods, to a more wholefoods-based, fresh food diet, participants had a 66% drop in their BPA exposure (Rudel et al., 2011).

It is certainly recommended to pay attention to your EDC exposure during pregnancy, as they can in fact cross the placenta and become concentrated in your baby's circulation too (Street & Bernasconi, 2020).

An easy way to start reducing your EDC exposure is by switching out your food containers from plastic (even if BPA-free, these can contain other EDCs) to glass, ceramic or stainless steel.

A great resource to further your EDC lowering journey is using the Environmental Working Group Skin Deep database for cosmetics. You can also review some evidence-based resources at Two Lines Fertility.

Supporting your mental health

Mental health support resources

Too often we focus on our physical health during pregnancy and forget the importance of being mentally and emotionally prepared. Pregnancy is a time filled with overwhelming emotions that at times can contradict each other. The highs and lows and the extent of them differ from person to person. The journey to pregnancy and to baby can be complicated. Infertility, miscarriage, pregnancy loss and post-natal anxiety and depression, are common experiences, yet they are often left unspoken about, only to the detriment of those who need support in such a difficult time.

Please remember that should you need support there are a number of quality services set up to guide you and your partner through whatever it is that you may be going through.

The Pink Elephants support network

Pink Elephants is a dedicated service for those who have experienced miscarriage or pregnancy loss, you can review the available support resources on their website: https://www.pinkelephants.org.au/

Other support networks include

SANDS – 1300 072 637 – SANDS is an independent organisation that provides support for newborn death, stillbirth and miscarriage.

Pregnancy Birth and Baby – 1800 882 436 – Call for trusted advice and emotional support anytime 7 days a week.

Bears of Hope – 1300 11 HOPE – Provides grief support and care for families who experience the loss of their baby.

Perinatal Anxiety & Depression Australia

PANDA - Perinatal Anxiety & Depression Australia supports women, men and families across Australia affected by anxiety and depression during pregnancy and in the first year of parenthood. PANDA operates Australia's only National Helpline for individuals and their families to recover from perinatal anxiety and depression.

You can call the PANDA (Perinatal Anxiety & Depression Australia) national helpline on 1300 726 306.

Lifeline

If at any time you need support, you can call Lifeline in Australia on 13 11 14

You can speak with your health care provider to discuss a referral to a psychologist or counsellor for individualised support and care. You are not alone.

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