

Nutrition in Pregnancy

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Note: This information is intended for educational purposes only. You should seek further advice and instruction from your chosen healthcare professional.



Before you conceive!

Thinking of having a baby? As soon as you consider pregnancy you should analyse your diet and nutrition. A naturopath, nutritionist or dietician can help you to make changes to assist conception and promote a healthy pregnancy and bouncing baby.

Deficiencies of essential nutrients can cause foetal abnormalities, low birth weight or miscarriage. Baby's organs are formed during the first three months of your pregnancy, so it is most beneficial to address any deficiencies as early as possible, preferably before conceiving. It is best to stop taking the oral contraceptive pill at least 6 months before conception. The pill increases the body's need for specific nutrients (in particular, vitamins B2, B6, folic acid, B12, vitamin C, Zinc and Magnesium), so these, and any other nutrient deficiencies should be corrected first to promote your baby's optimal health and to aim for a comfortable and enjoyable pregnancy.

If you are already pregnant, your naturopath can still offer advice to gradually improve your nutritional status through diet and nutritional supplements.

Diet

A balanced diet should include a good variety of foods and provide all nutrients the body needs. The emphasis should be on eating a higher quality diet rather than simply eating more.

Despite an excellent diet and a modest nutritional supplement you still might need to take extra of a certain nutrient to relieve the symptoms mentioned below. Megadoses are not recommended. Use the lowest dose possible or seek advice from your health care practitioner.

EMPHASISE

Eat small meals frequently, including a little protein in every meal.

Increase your intake of good quality protein such as soy products, beans, pulses, sprouted grains, legumes, nuts, seeds, and in smaller quantities, fish, poultry, meat, eggs and dairy foods. Protein provides the essential 'building blocks' for your baby and correlates with birth weight, body length and organ size, particularly the brain. During pregnancy, eat 10-20 grams extra per day.

Ensure adequate intake of complex carbohydrates such as wholegrain breads & cereals. This allows the protein to be used for building your baby instead of being converted for energy.

AVOID/REDUCE

Avoid fast, refined and processed foods - canned, micro-waved, packaged or 'white' anything. Most processed foods contain additives such as colourings, flavourings and preservatives which are potentially harmful. Reduce sugary treats such as cakes, biscuits, pastries as these take more nutrients to digest than they provide. They also have a rapid effect on blood sugar levels, resulting in fluctuations, which may predispose to gestational diabetes.

Increase omega-3 essential fatty acids (EFAs) by eating more cold water fish (3 times per week), and/or using linseed (flax) oil in daily food preparation, such as in salad dressings, shakes or on cereals (DO NOT HEAT). Omega-3 EFAs are essential for normal growth and development of all cells of your baby, especially of the brain, liver and eyes. If your intake is good, your baby will receive adequate amounts through maternal donation and in breast milk.

Avoid fatty, greasy and rich foods - these interfere with digestion and the balance between good and bad fats. Margarine and burnt or rancid fats are also potentially harmful.

Include lots of fresh fruit and vegetables (organic if possible), aiming for up to 70% raw or lightly steamed to prevent destruction of nutrients.

Avoid alcohol, excessive tea, coffee and caffeine-containing soft-drinks - these remain in your body much longer during pregnancy and cross the placenta to your developing baby. They also leach valuable nutrients from your body.

Eat foods rich in soluble fibre such as oats, apples, pears, ground linseeds & psyllium

Drink 6 to 8 glasses of water per day, away from meals - water dilutes your digestive juices, impairing digestion of food.

DO NOT diet to lose weight (unless under strict supervision) or start a bowel, liver or heavy metal detoxification program as these mobilise stored substances into the blood, which are potentially harmful to you and your developing baby.

Take a multivitamin & mineral supplement. The most common deficiencies in pregnancy include: zinc, folic acid, B complex vitamins, calcium, EFAs, protein and iron. So increase foods rich in these nutrients (see list).

Pregnancy conditions associated with nutritional deficiencies

IF YOUR PHYSICAL CHANGE IS MORE THAN A MINOR DISORDER - TELL YOUR MIDWIFE OR DOCTOR. IF YOU FEEL ILL, HAVE VAGINAL BLEEDING, SWELLING OF YOUR FACE OR HANDS, OR SEVERE HEADACHES, CONSULT YOUR MIDWIFE OR DOCTOR.

Morning Sickness

Symptoms: nausea, often worse in the morning; vomiting

Contributing Factors: - hormonal changes, especially human chorionic gonadotrophin (HCG) produced by the placenta from the moment of conception. Reaches its peak at 9 -10 weeks after your last period. Usually declines by 14 -16 weeks. High oestrogens (especially if there was a pre-existing hormonal imbalance), low blood sugar in the mornings (due to baby-building and no food intake during the night), with high levels of digestive juices in the stomach and increased activity of the liver - breaking down hormones (especially if you already have problems with fat metabolism) may all be associated with morning sickness. Iron supplements can worsen morning sickness.

Suggestions: Eat a little - often. This will keep your blood glucose steady. Some people suggest eating toast or a biscuit with a cuppa before you get out of bed. Eat light snacks of fruit and/or seeds. Avoid fatty and acidic foods such as citrus fruits or juices; increase complex carbohydrates such as wholegrains; eat a small amount of protein in each meal. Take iron supplements with food. Try drinking ginger, red raspberry leaf, basil or peppermint teas. Use ginger in cooking. Supplements, which may help, include vitamins B6, B12, E and K, Evening Primrose Oil, magnesium and potassium. **Consult your naturopath for supervision of supplementation.**

Anaemia

Symptoms: Pallor, tiredness, sore tongue, pica (craving dirt /clay)

Contributing Factors: Dietary deficiency (see below); poor digestion and absorption of nutrients (low hydrochloric acid (HCl)); excessive bleeding (history of long or heavy period, haemorrhage, recurrent nose bleeds...)

See your health care practitioner! If you are anaemic, your blood will carry less oxygen to the placenta, which may lead to premature birth or low birth weight. It can also increase the risk of a bleed at birth. Anaemia results from low haemoglobin (Hb) levels in the blood. This may be due to low iron levels OR deficiencies of B6, folic acid and B12. It is important to find out the cause of your anaemia by blood test or dietary analysis before taking large doses of iron, as excess iron levels can be harmful. Iron needs are increased throughout pregnancy (especially in the last few weeks of the 3rd trimester) and breast-feeding. Our body adjusts by increasing absorption of iron from our diet by more than double. Vitamin C in our diet changes iron into a more easily absorbed form, so eat capsicum or tomatoes with iron-rich foods.

Suggestions: If your symptoms are severe, see your health care practitioner immediately. For milder cases, pay attention to your diet - eat iron-rich foods with foods containing vitamin C, or take a balanced supplement containing the above precursors for Hb production.

Mask of Pregnancy (Chloasma)

Symptoms: Brown facial pigmentation, also known as 'melasma'.

Contributing Factors: Deficiency of folic acid; high oestrogens

Suggestions: Wear sunscreen, increase intake of foods high in folic acid, dark green leafy vegetables, wheat germ, asparagus, broccoli, potatoes, whole grains, fruits and vegetables.

Haemorrhoids

Symptoms: Anal discomfort; pain on bowel motion; bleeding from the anus; often accompanied by constipation.

Suggestions: Avoid constipation by walking daily, drinking plenty of water and eating lots of high soluble fibre foods, such as fruit and vegetables, especially apples and pears, ground nuts/seeds, linseeds, psyllium. Increase foods high in vitamin C and bioflavonoids (usually these come together), vitamin E, vitamin B6 and zinc. There are some soothing herbal and homeopathic ointments around. Try a compress of calendula or witch hazel. Janet Balaskas has some good exercises in her book *Active Birth* (Unwin paperbacks).

Pre-Eclampsia (Toxaemia)

Symptoms: High blood pressure accompanied by oedema (fluid retention) all over the body, often worse in hands and feet and protein in the urine. Other warning signs of pre-eclampsia include: upper abdominal pain, severe and constant headaches, swelling (especially facial), dizziness, blurred vision and sudden weight gain. It mostly occurs in the latter part of pregnancy and can progress to eclampsia (convulsions, coma) if left untreated - the biggest cause of maternal mortality.

Contributing Factors: A history of high blood pressure, high sodium intake, and deficiencies of vitamin B6, magnesium and calcium can predispose to pre-eclampsia. Essential Fatty Acid (EFA) imbalance favouring constriction of blood vessels and aggregation of clotting factors is also found in women with pre-eclampsia.

THIS CONDITION MUST BE TREATED BY A HEALTH CARE PRACTITIONER. It must be carefully monitored as it can put yours and your baby's life at risk if left untreated. Very rarely it can cause the placenta to detach from the Uterine wall restricting bloodflow and therefore oxygen and nutrients to the baby, leading to poor growth and maybe immediate delivery of your baby.

Suggestions: See your doctor or midwife! Pay strict attention to diet - avoid salt, tea, coffee and alcohol. Supervised supplementation of omega 3 EFAs, B6 and vitamin E. Calcium can lower high blood pressure. Zinc can reduce the risk of rupture of the placenta. Magnesium reduces spasm and constriction, dilates blood vessels and improves blood supply to the uterus. The only cure is the birth of the baby. If it is too soon, bed rest or hospitalisation may be necessary.

Cravings

Cravings for strange foods or combinations are nature's way of letting you know that your diet is lacking in nutrients such as protein, iron, zinc, chromium, calcium, magnesium or even calories. Low blood glucose (hypoglycaemia) may also contribute to cravings. Other symptoms of hypoglycaemia include dizziness, sweating, heart palpitations, mental confusion, and in severe cases, coma.

Some examples of cravings include:

pica (dirt/clay, etc.) - iron, zinc

chocolate - magnesium vegemite - B complex, chromium

bananas, avocados - potassium, magnesium,

dairy products - calcium

pickles, sauerkraut, olives - potassium, sodium

Heartburn and Reflux

Contributing Factors: increased progesterone softens the valve between your oesophagus and your stomach, and the growing foetus takes up more and more space, increasing the pressure on your stomach, so food tends to rise up causing heartburn. This usually occurs around the last 12 weeks as the foetus takes up more room in your abdominal cavity, and is often worse at night.

Suggestions: Sleep with an extra pillow or two to raise your upper body using gravity to help keep food down. Don't eat late at night - at least 2 hours before bedtime. Walk after the evening meal. Drink juice made from 3 or 4 Umeboshi plums in half a litre of water. Try peppermint and liquorice tea. Avoid over-the-counter medications containing aluminium. Milk of magnesia may also be helpful in stubborn cases.

Constipation

Contributing Factors: increased progesterone acting on the muscles of the intestines; not enough soluble fibre; not enough water; not enough exercise; diet too high in refined carbohydrates; pressure on intestines due to growing foetus.

Suggestions: Eat plenty of soluble fibre (such as apples, pears, fruit and vegies, whole grains); drink plenty of water (at least 8 glasses); walk daily (for at least 20 minutes); if necessary, eat natural laxatives such as ground nuts & seeds (eg. LSA - linseeds, sunflower seeds and almonds), psyllium husks (eg Metamucil) and prunes/juice. There are herbal and homeopathic remedies too.

Backache

Back pain usually occurs in the last months of pregnancy when your uterus is heavy and your joints are relaxed because of the hormones of pregnancy. Back muscles have to work hard to compensate for the changing centre of gravity as the weight in front increases. Regular walking, swimming or yoga may relieve back pain. Ensure adequate intake of calcium in the diet or a supplement as in deficient blood-calcium states, calcium is drawn from the mother's bones. Consider consulting an osteopath, chiropractor, acupuncturist or massage therapist who specialises in pregnancy.

Varicose Veins

Contributing Factors: Poor blood vessel tone of the veins in the legs due to hormonal changes - increased progesterone - softens and stretches tendons, ligaments and blood vessels; deficiency of Vitamin E and/or C, zinc and bioflavonoids.

Suggestions: Elevate your feet higher than your head for 10 minutes, 2 or 3 times per day. Janet Balaskas has some stretches and exercises in her Active Birth book. Avoid standing or being on your feet for long periods. Gentle walking improves circulation and reduces pooling in veins. DO NOT massage these areas! Increase foods high in vitamin C and bioflavonoids (usually these come together), vitamin E, vitamin B6 and zinc.

Thrush

Symptoms: vaginal itching, discharge, which is white, thick and curdy, may smell yeasty.

Contributing Factors: imbalance of gut flora leading to proliferation of *Candida albicans* organism; often diet-related - high sugar, yeast; use of the pill, long-term or recurrent anti-biotic therapy or other immuno-suppressive drugs; poor nutrient status; poor perineal hygiene spreading organism from anus to vagina; lack of acidity in the vagina (normal is 5.5); many other contributing factors.

Suggestions: Avoid using soap or deodorant; eat yoghurt containing *Acidophilus* & *Bifidus lactobacilli* daily or take a course of these to re-establish the healthy bacteria in the digestive tract. Yoghurt is also very soothing locally as a douche or on a tampon. White vinegar may also be used internally to rebalance the vaginal pH. Eat wisely avoiding all foods which feed the yeast - alcohol, fermented food & drinks, anything smoked or pickled, foods containing sugar, yeast, malt, mould (eg peanuts, melons, teas), dairy (except yoghurt), processed foods, refined grains (white anything)... It is best to undertake this type of diet with the support of a naturopath.

Bleeding Gum and Nosebleeds

Usually due to deficiency of Vitamin C and Bioflavonoids resulting in poor integrity of the blood capillaries.

Leg and Other Cramps

Contributing Factors: Usually considered to be the result of low electrolytes.

Suggestions: Increase intake of foods high in electrolytes - vegetable broths, bananas, sea salt, apricots, potatoes. Take an electrolyte supplement. Magnesium reduces neuromuscular irritability and is used to treat leg and foot cramps, spasms, convulsions, tremors and twitches. Calcium, potassium and sodium affect nerve impulses and muscle function and are used in the treatment of muscle pain and cramps.

Caution with sodium

Blood Pressure Changes

When you are pregnant, the volume of your blood increases by about 30%. Due to progesterone acting on your cardiovascular system, your blood pressure may drop slightly. Sometimes you may feel faint. Normal blood pressure will be about 100/60 to 125/80.

Transient Hypertension

A slight rise in blood pressure is fairly common in the last half of pregnancy. If it is mild and there are no adverse effects, it is likely that it will normalise again after the birth. But if a reading rises significantly, this could be a symptom of pre-eclampsia or toxemia (refer above) and should be monitored carefully by your midwife or doctor.

Suggestions: Pay strict attention to diet - avoid salt, tea, coffee and alcohol. Supervised supplementation of omega 3 EFAs, B6 and vitamin E. Calcium can lower high blood pressure. High blood pressure can also be treated with acupuncture, with homeopathy or herbal remedies. Walking daily is also a good remedy.

Gestational Diabetes

Symptoms: Excessive thirst, excessive urination and hunger. This is abnormal glucose tolerance that may appear during pregnancy from around weeks 24 - 28. It usually returns to normal after the birth, however there is some risk that the mother may develop non-insulin dependent diabetes within 5 years.

It is diagnosed by a glucose tolerance test ordered by your doctor or midwife if you show symptoms or you are in the high-risk category.

If gestational diabetes is not controlled or managed by diet, a larger baby may result, increasing the chances of a difficult birth or medical intervention during the labour.

Contributing Factors: A family history of diabetes; placental hormones altering normal tissue resistance to insulin; obesity; too much weight gain during pregnancy; eating a diet high in refined carbohydrates and low in nutrients, notably vitamin B6.

Suggestions: Maintain stable blood sugar by eating small meals often and including protein in every meal (mostly plant protein - see diet section above). Avoid sugar and other refined carbohydrates. Eat plenty of complex carbohydrates. Guard against vitamin B6 deficiency by taking a B Complex supplement containing a reasonable amount of B6.

Stretchmarks (Striae)

Symptoms: Streaks or lines which may appear on the abdomen, breasts, buttocks, hips, thighs and sides as a result of rapid growth. They often appear in the last few weeks of pregnancy as the skin is stretched to its limit. Dry, itchy skin may be a warning sign.

Contributing Factors: Hormonal changes, excessive weight gain, impaired integrity of connective tissue (elastin and collagen fibres) due to low nutrient status - especially zinc, vitamin C and EFAs.

Suggestions: Try dry body brushing (towards the heart) before a shower with a natural bristle brush to exfoliate, tone and stimulate the skin. Use Essenture Nourishing Body Cream. If you feel that you may be lacking, supplement with zinc and vitamin C (short term, then gradually reduce). Increase intake of EFAs by eating more cold water fish or using linseed oil in daily food preparation (see diet section).

Oedema

Symptoms: Oedema is fluid retention. This is seen as a slight swelling in the ankles, fingers and sometimes the face and is fairly common in late pregnancy. It is usually worse at the end of the day. It is nothing to worry about if your blood pressure and urine are normal. Tell your doctor or midwife if you have any concerns.

Contributing Factors: Imbalances in electrolytes (calcium, magnesium, potassium and sodium) can lead to fluid retention.

Suggestions: The best remedy is putting up your feet and getting plenty of rest. Gentle massage or body brushing towards the heart may help. Increase intake of foods high in electrolytes - vegetable broths, bananas, sea salt, apricots and potatoes. Take an electrolyte supplement.