Nutrition AND FERTILITY

Nutrition is important for all aspects of conception and pregnancy, as many vital functions are dependant on essential nutrients. For example, DNA synthesis (important in the development of both sperm and eggs) is affected by what you eat, as most of its compounds are derived from the diet. Also, once pregnant, the nutritional requirements of a woman's body increase dramatically and additional support is often required.

GENERAL DIETARY ADVICE

Eating for fertility incorporates some general 'rules', many of which you will have come across before. Remember, a healthy body is a fertile body, so it's important to make choices that support your overall health and wellbeing.

Eat clean

Make sure the majority of your diet is comprised of fresh, unprocessed foods. As much as possible, include organic and seasonal produce in your diet; and sustainable, organic animal proteins (meat, chicken, fish, eggs, dairy) wherever you can. These are better both for you and the planet.

Keep it colourful

Fresh, seasonal fruit and vegetables will provide you with a wide range of essential nutrients, increase your overall fibre intake and also add some colour to your plate. These should feature in every main meal and most snacks.

Eat fat

Include plenty of good fats in your diet - these play an important role in hormone production, also supporting nervous system function and reducing inflammation. These include raw nuts (and their oils), flaxseeds, chia seeds, olive oil, avocado, coconut oil, natural yoghurt, grass-fed butter, and oily fish.

Eat protein

Protein foods are comprised of amino-acids, which are often called the 'building blocks' of life. Every cell in the body requires protein and this is even more important when you're preparing to make a new human! Good sources of protein include sustainably-produced meat, poultry, eggs, fish and dairy (e.g. natural yoghurt, cheese), legumes, tempeh, nuts, and seeds.

Stay hydrated

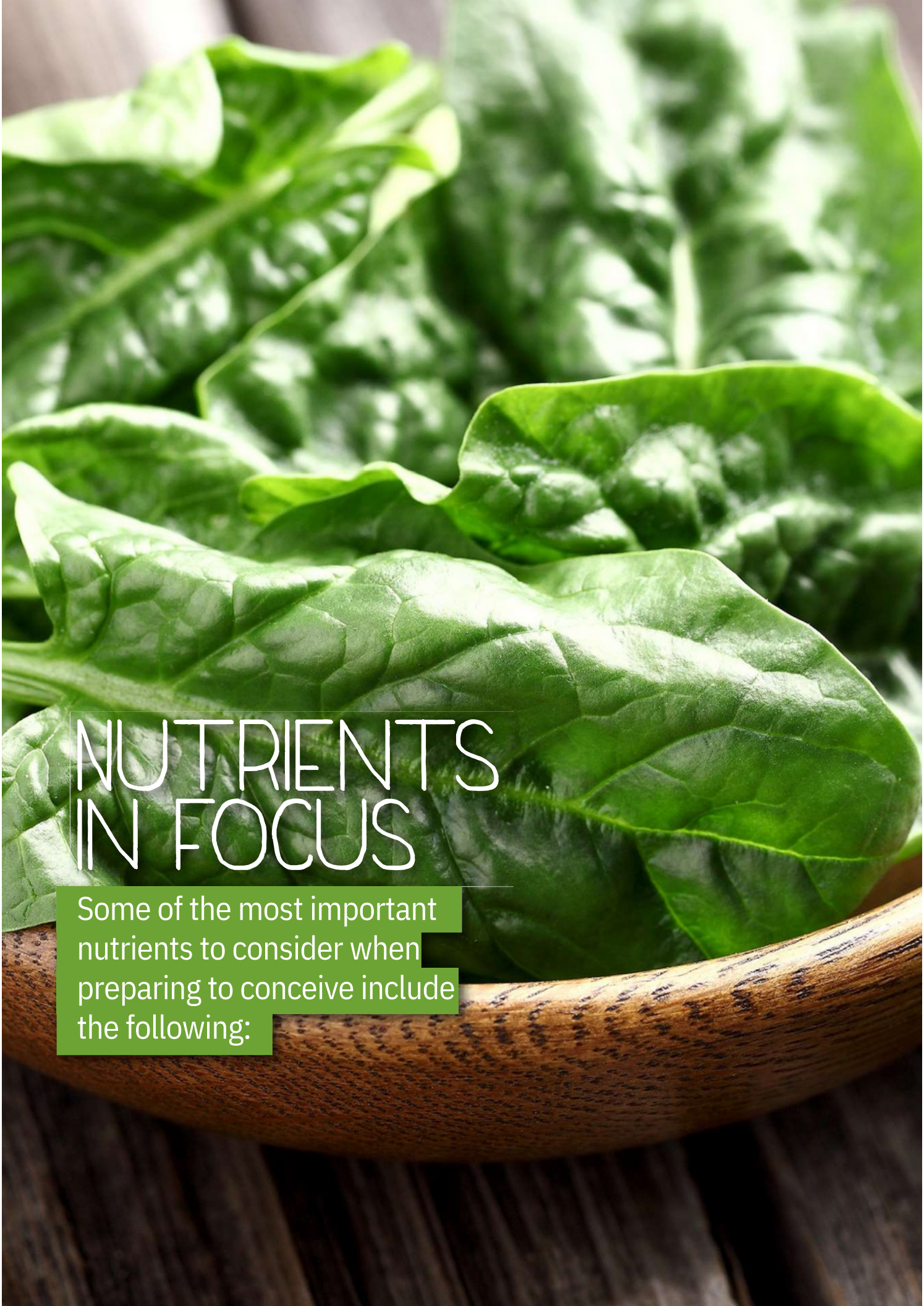
Keep up a regular intake of water and/or herbal tea throughout the day. The role of adequate hydration for general health and wellbeing cannot be overstated. Drink up.

Fish are an excellent source of both protein and fat, however it's important to choose well as some of the larger ocean fish - such as tuna and sword fish - contain high levels of heavy metals and other pollutants. Instead, aim for small, deep-ocean fish such as wild salmon, sardines, halibut, and trout.

Cut out the crap

As much as possible, avoid all processed and refined foods - those that come out of packets, cans, boxes and wrappers. They offer very little nutritional value and are often loaded with sugar, salt, additives and preservatives. None of these do good things for your health; interfering with metabolic, hormonal, digestive, cardiovascular and mental wellbeing.

Also be aware of foods that you are allergic or intolerant to and avoid those you know you can't have. A surprising number of people eat food that doesn't agree with them. This can range from 'too much of a good thing' to a genuine immune reaction. In some cases, allergy testing may be appropriate to ascertain which foods are causing a reaction.



NUTRIENTS IN FOCUS

Some of the most important nutrients to consider when preparing to conceive include the following:

FOLATE

Folate is an important nutrient for many body functions, including DNA synthesis, oocyte quality and maturation (healthy eggs, in other words), reducing excess homocysteine (related to inflammation) and supporting nervous system function. Studies show that folate also plays a role in spermatogenesis.

From a preconception and pregnancy point of view, folate is THE nutrient to protect against neural tube defects (NTDs). Very important, as the neural tube is a precursor to the baby's central nervous system i.e. spinal cord and brain.

FOOD SOURCES:

green leafy vegetables, mushrooms, lentils, organ meats and bread.

ZINC

Zinc is involved in many levels of reproductive function and is one of the most important nutrients for pregnant women. Zinc is important for its role in immunity, cell division and growth, maintaining hormone levels, making healthy collagen and numerous other processes.
Of the elemental micro-nutrients, zinc has the widest range of essential functions. Zinc also plays a role in testicular development, sperm maturation and testosterone synthesis. It is needed to make the outer layer and tail of the sperm, giving viable sperm count and a high percentage of live, well-formed sperm in semen.

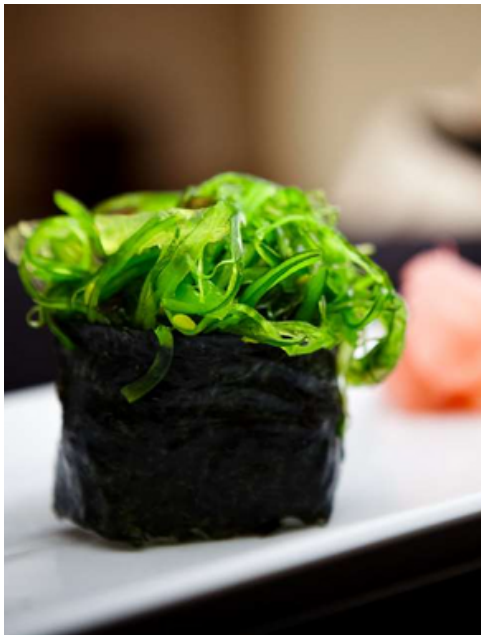
FOOD SOURCES: meat, poultry, fish, shellfish (particularly oysters), pepitas, sunflower and sesame seeds, Brazils, almonds and other nuts, soy beans, fruit, green leafy vegetables, watercress, wheat bran and wheat germ.

IODINE

Iodine is essential for making thyroid hormones, which regulate metabolism. It also plays an important role in foetal brain and nervous system development. In pregnancy, iodine requirements increase significantly. Unfortunately, here in Australia, iodine deficiency is relatively common. And because the body does not store iodine, it is important to regularly
eat iodine-rich foods and/or supplement iodine.

FOOD SOURCES:

seafood, sea vegetables (e.g. kelp, wakame, dulse), beans and organic vegetables.



IRON

Adequate iron is very important, as the volume of circulating blood increases during pregnancy, helping to oxygenate the placenta. Iron is needed to make haemoglobin,
the substance in the red blood cells that carries oxygen. Iron deficiency can lead to weakness, fatigue, depression, headaches, confusion and memory loss. Iron supplementation on its own is not always effective, as it needs to work with other vitamins and minerals. Vitamin C in particular helps the body to absorb iron.
It's also important to remember that iron is a heavy metal, so food sources are far preferable to supplementation, unless you have a diagnosed deficiency.

FOOD SOURCES:

lean red meat, molasses, whole grains, wheat germ, poultry, almonds, egg yolk, avocados, dried fruit (such as figs, currants and apricots), green leafy vegetables such as spinach, broccoli, watercress and parsley.

VITAMIN D

Vitamin D deficiency is a common problem across Australia, particularly in pregnant women. For this reason, ensuring your levels are adequate before you fall pregnant is ideal. Low levels of vitamin D are associated with impaired fertility and problems during pregnancy. Additionally, as breast milk contains a low level of vitamin D, it is particularly important for pregnant women to ensure appropriate levels in the later stages of pregnancy so the baby has adequate supplies after birth.

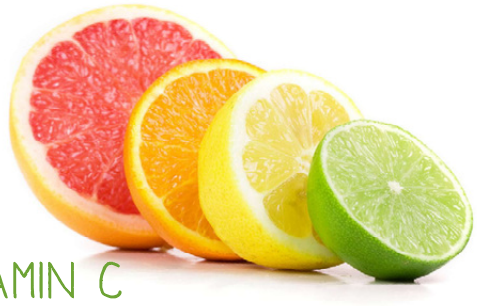
Although vitamin D is found in some foods, the major source is sunlight. Appropriate sun exposure (~10 minutes daily) not only makes you feel good, but can help to boost vit D levels naturally.

ESSENTIAL FATTY ACIDS (EFAS)

Fats form a large part of the membranes of all cells and give rise to prostaglandins, which are used to make adrenal and sex hormones, affecting all the body's systems. EFAs help in the absorption of nutrients and activate many enzymes.

FOOD SOURCES:

nuts (e.g. Brazils, macadamias, walnuts), nut butters, seed and nut oils, grass-fed butter, avocado, organic yoghurt, coconut oil, seeds such as sunflower / flax / chia, oily fish such as mackerel, sardines and salmon.



VITAMIN C

Vitamin C enhances absorption of iron. It is also needed to make healthy collagen (the body's connective tissue), as well as helping to boost the immune system and increase resistance to viruses and toxins. Supplementation of this can increase both sperm count and motility, and may decrease the risk of sperm damage. It is particularly important for people who do not eat ample amounts of fresh fruit and vegetables. The body cannot store vitamin C, so regular intake is important.

FOOD SOURCES: citrus fruits, blackcurrants, melons, pineapples, bananas, raspberries, apples, pears, prunes, tomatoes, potatoes, green capsicum, Brussels sprouts, kale, broccoli, parsley and alfalfa.

MAGNESIUM

Magnesium is essential for a vast array of body functions, including energy production, metabolism of carbohydrates and, notably, the production of oestrogen and progesterone. Deficiency can lead to nervousness, irritability, fluid retention, and compromised immune function.

Supplementation throughout pregnancy has been shown to prevent thrombosis, improve vasodilation (preventing toxaemia) and prevent premature uterine contractions.

FOOD SOURCES:

cacao and carob powder, green leafy vegetables, raw nuts (especially almonds, cashews and Brazils) sunflower and sesame seeds, pepitas, tahini, molasses, kelp, oats, milk, wheat bran, whole grains, figs and tofu.

CALCIUM

Calcium is necessary for the formation of fertile or "stretchy" mucus and can also improve the ability of sperm to swim through it. The requirement for calcium increases during pregnancy, as it is used for building strong bones, helps muscle growth and aids in nerve function.

FOOD SOURCES: organic dairy products, sesame seeds, almonds, tahini, egg yolk, molasses, sardines, canned salmon and green leafy vegetables (especially parsley).

SELENIUM

Selenium is an important antioxidant, but levels of this trace mineral in Australian soils are low and inadequate intake is common. Deficiency of selenium has been linked to congenital abnormalities in newborns – particularly with older parents.

FOOD SOURCES: Brazil nuts, tuna, herring, wheat germ, barley, rye, oats, brown rice, garlic, whole grains, scallops, lobster, prawns, crab, oysters. Selenium is more effective when taken together with vitamin E.