

Diet, lifestyle and fertility

'It takes two to tango'

Lisa Simon, Registered Dietitian



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1 in 7 couples struggle to conceive. In a quarter of cases there is no explanation. A healthy diet and lifestyle can help optimise fertility.



Male fertility

It takes around 3 months for sperm to develop
Key nutrients during this time are **zinc** and **folate**

Sources of zinc include

oats, legumes, grains, seeds, firm tofu, avocado

Sources of folate include

dark green leafy vegetables, peas, chickpeas, oranges, fortified foods

Once sperm has formed, it can be easily damaged. Antioxidants are needed to protect from damage. These include vitamins C and E, folate, zinc, selenium and lycopene. Eat a variety of fruit, vegetables, whole grains, nuts and seeds. Eat 1-2 brazil nuts daily to meet their selenium requirements and as they lose zinc via each ejaculate, their requirements are higher than women (9.5mg vs 7mg). An easy way to increase zinc intake is to snack on a handful of mixed seeds daily or add to porridge.

Sprouting or soaking grains and legumes increases bioavailability of zinc

Vitamin D:

No current recommendations for pre-conception but a vitamin D3 supplement of 10mcg daily is recommended during winter months for all adults in the UK and during summer if much of the day is spent indoors, you have dark skin and if much of your skin is covered.

Tip: leave mushrooms on a windowsill prior to cooking, with the window open and they will start to make their own vitamin D.

Folic acid:

Supplementation for women is vital during pre-conception period and the 1st trimester. A daily supplement of 400mcg must be taken, alongside food sources of folate. Some women may be advised to take higher doses so check with your GP.

Iron:

Important to increase food sources, including grains, dried apricots/dates, nuts, beans. Women require 14.8mg/day, men 8.4mg/day. To increase absorption, include a source of vitamin C with each meal and snack (i.e. fruit and/or vegetables). Avoid drinking tea/coffee/wine with meals and if on calcium supplements take in-between meals, not with. Iron deficiency in men is associated with defective sperm cell development, loss of libido, damage to sperm and impaired fertility.

Weight:

Women should aim for a BMI between 20 - 24. Both underweight and overweight can reduce fertility in women and there can be risk for baby too. For men and women who have a high BMI, losing 5-10% of body weight can improve fertility.

Iodine:

An essential mineral involved in thyroid function and a key nutrient for first 1000 days of life (conception to just before 2nd birthday). Iodine is just as important as folic acid during the pre-conception period. Majority of non-dairy milks are now fortified (exception: organic brands). The WHO recommends a 150mcg supplement (not kelp) during pre-conception through to and including breast feeding.

Essential fatty acids:

During pre-conception, women should eat a diet rich in omega-3 and 6 fats. Omega-6 fats are abundant in the diet, but it is important to eat sufficient omega-3 fats. Include a serving (around 6 halves) of walnuts or a tablespoon of flax or chia seeds daily and plenty of dark green leafy vegetables. A daily algae-based omega-3 supplement containing 500mg of DHA/EPA or DHA alone is also advised.

Diet, lifestyle and fertility: 2

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Reduce the AGE (advanced glycation end product) content of food

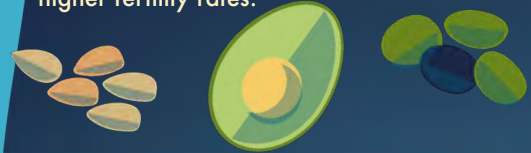


AGEs cause general inflammation but also localised in the uterus and can decrease the likelihood of the embryo implanting.

Cooking certain foods at high temperatures on dry heat increases the formation of AGEs. Animal foods high in protein and fat are particularly susceptible to forming AGEs. Foods high in AGEs include meat, cheese, eggs, processed foods, sugar-sweetened drinks, crusts of bread and toast.

Dietary fats:

For women, diets rich in monounsaturated fats (eg avocados, olives, nuts) are associated with higher fertility rates.



In men, diets rich in polyunsaturated fats (eg walnuts, sunflower seeds, soybeans, tofu) are important for sperm quality and quantity.



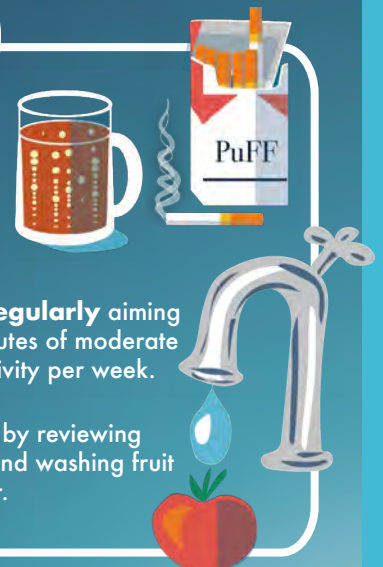
Managing stress:



Through the use of meditation, yoga, breathing techniques, gentle exercise, complimentary therapies such as reflexology and acupuncture.

Lifestyle factors

Smoking, alcohol, environmental pollutants and infections can all affect fertility. **Stop smoking.** Drink within government guidelines and avoid binge drinking.



Exercise regularly aiming for 150 minutes of moderate intensity activity per week.

Reduce exposure to pollutants by reviewing household cleaning products and washing fruit and veg thoroughly with water.

Alcohol

Government guidelines for both sexes = maximum 14 units of alcohol weekly, spread over a number of days, with at least 2 alcohol free days each week. 1 unit = 1/2 pint 4% beer, 25ml 40% spirit, 125ml glass wine.

Women trying to conceive should ideally not drink in case of pregnancy.

Caffeine

It's best to start reducing, with the aim of eliminating, caffeine consumption prior to becoming pregnant.

Approximate caffeine content for some common drinks:

Drinks	Caffeine Content mg
1 cup instant coffee (200mls)	30-90
1 cup filter coffee (200mls)	80
1 cup espresso (60mls)	80
1 regular high street Americano	120-185
1 large high street Americano	225-370
1 cup black tea (200mls)	47 will increase the longer it is steeped
1 cup green tea (200mls)	33
1 can Red Bull energy drink	80
1 can Monster energy drink	160
1 large high street hot chocolate	25

Trying to conceive is stressful and can feel regimented.

Ensure you take time to relax together outside of the home, try and have a regular date night where you do something you enjoy as a couple. Encourage communication; remember that both of you will have internal struggles and it is important not to let these overwhelm you. Have empathy for each

other and remember you are in the same boat. Avoid inflammatory language, especially if there is a reason for infertility. Simple gestures are so important during this time – making a cup of tea for your partner, running a bath, cooking a favourite meal, and respecting each other's needs for some time out every now and again.



For help and support in making changes to your diet and lifestyle in order to optimise fertility, always contact a specialist Dietitian

If you are following a 100% plant-based diet then you need to ensure a regular and reliable source of B12