



# PRE-CONCEPTION

If you are considering pregnancy, there are a number of nutritional needs to be considered for both mother and baby.

A diet providing the right amount and type of energy, protein, vitamins, minerals and fluid will:

- Reduce the risk of mum and baby developing nutrient deficiencies
- Improve the chance of a healthy and successful pregnancy for mother and baby
- Prepare for breastfeeding by increasing body stores of some nutrients

In addition there is increasing evidence that maternal nutritional status and dietary intake at conception, and during pregnancy, can affect the child's future development and health throughout life.

Nutritional needs of women planning a pregnancy or who may become pregnant can be met by following the principles of healthy eating recommended for the general population whilst taking account of some additional dietary issues which are relevant to this group and detailed in this leaflet.

Practical advice about the five food groups and how to eat a healthy diet can be found in the Live Well section of the NHS choices website:

[www.nhs.uk/Livewell](http://www.nhs.uk/Livewell)

and

[www.nhs.uk/Livewell/Goodfood/Pages/Healthyeating.aspx](http://www.nhs.uk/Livewell/Goodfood/Pages/Healthyeating.aspx)

Additional food and dietary considerations for women who may become pregnant are outlined below and include:

- Maintaining a healthy weight (under/overweight)
- Alcohol
- Folic Acid
- Iron
- Vitamin D
- Vitamin A supplements and liver
- Fish

## HEALTHY WEIGHT

### Underweight

Women who are underweight (Body Mass Index /BMI < 18.5) may find it more difficult to conceive, are more likely to produce low birth weight infants and are at a greater risk of miscarriage, stillbirth and disability. BMI calculator can be found [here](#).

Ideally conception should be delayed until:

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- A healthy weight is achieved (BMI 18.5-24.9)
- The woman has been eating a balanced and varied diet for a few months
- Any underlying nutrient deficiencies have been corrected or stabilised

### Overweight and Obesity

Fertility is reduced with increasing BMI above the healthy weight range. The risks to mother and baby during pregnancy and birth also increase, for example: malformations of the developing baby, complications during pregnancy, high blood pressure, preeclampsia, infections, gestational diabetes, complications during labour and birth.

- Ideally women who are overweight (BMI over 24.9) should reduce weight to within the healthy range (BMI 18.5-24.9) prior to conception
- Women with a BMI of 30 or more should be made aware that losing 5-10% of their weight would have significant health benefits and would increase their chances of becoming pregnant and of a healthy pregnancy and baby
- Further weight loss to achieve a BMI within the healthy range (18.5-24.9) should also be encouraged using evidence –based weight management programmes
- Extreme and fad diets for weight loss may result in nutrient deficiencies and should be avoided.

Ideally weight should have stabilised prior to conception and women should be aware that continuing with a weight loss programme when pregnant is not recommended.

## ALCOHOL

Women who are planning to become pregnant should be avoiding or limiting alcohol consumption (1-2 units of alcohol once or twice a week) at least 3 months before conception. Fertility is reduced with increasing alcohol consumption and there is also a higher risk of miscarriage.

## FOLIC ACID

Folic acid is an important vitamin for brain development during the first 3 months of pregnancy and helps protect against [spina bifida](#) and other neural tube defects. Women considering pregnancy are advised to take 400mcg\* of folic acid daily (as a supplement) at least 3 months before conception to optimise levels of folic acid in the body. This needs to be continued until the end of the 12th week of pregnancy.

Eating foods rich in folic acid is also encouraged (e.g. beans, vegetables, breakfast cereal fortified with folic acid).

\*Some women need a higher dose folic acid supplement (5mg) Women who have a history of neural tube defects or spina bifida in their family, or who have diabetes, take anti-convulsant medicines, coeliac condition, Crohn's disease or other malabsorption conditions are advised to take a folic acid supplement of 5mg daily until the end of the 12th week of pregnancy.

## VITAMIN D

A significant proportion of the UK population have low vitamin D levels which has resulted in a rising number of cases of rickets and other disorders caused by vitamin D deficiency.

Women considering pregnancy need good vitamin D levels to ensure there is enough for the developing baby, and to prevent disorders related to vitamin D deficiency in both the baby and themselves.

Recommendations are to take 10 micrograms of vitamin D daily throughout pregnancy and while breastfeeding.

## IRON

During pregnancy iron deficiency can occur, it is recommended that women should try to build up their body iron stores before pregnancy by eating foods rich in iron. These include meat, poultry, pulses, green leafy vegetables, soya products, eggs, nuts, wholegrains, dried fruit and iron-fortified breakfast cereals.

Iron absorption is improved by eating vitamin C at the same time e.g. fruit juice, fruit, vitamin C-fortified squashes, vegetables and salads.

## VITAMIN A (retinol)

Very high intakes of vitamin A in the diet can increase the risk of birth defects in the fetus. Women planning a pregnancy are advised to avoid liver and liver products (pate for example), and supplements containing vitamin A including fish and fish liver oil supplements, except on the advice of a dietitian, doctor or pharmacist.

## FISH

Women who may become pregnant should try to eat some fish each week including some oily fish which provides essential fatty acids. However they should:

- Avoid eating shark, marlin, and swordfish
- Limit tuna to 2 portions per week if fresh and to 4 medium portions if it is tinned. Limit oily fish (e.g. fresh tuna, herrings, salmon, sardines, mackerel, pilchards, trout or eel) to no more than 2 portions per week.