

Bandolier *Extra*

Evidence-based health care

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A HEALTHY PREGNANCY

A healthy diet will benefit your baby even before it is conceived. How to achieve a healthy diet is the first topic covered in these pages. They then talk about planning your pregnancy; if you are already pregnant the subsequent pages talk about healthy eating, as well as other lifestyle tips, during your pregnancy.

A healthy diet

A healthy diet can be achieved by following the guidelines which are based on the following five food groups:

1. Bread, other cereals and potatoes. Foods in this group include breakfast cereals, pasta and rice. These foods should make up the main part of your diet. They are good sources of carbohydrate, protein and B vitamins, low in fat and filling. Try to choose high fibre varieties which contain more vitamins and minerals and breakfast cereals which contain added iron and folic acid.
2. Fruit and vegetables. This group includes fresh, frozen and tinned varieties, salad vegetables, beans and lentils, dried fruit and fruit juice. Eat at least five portions a day (fruit juice counts as only one portion however much you drink in a day). Fruit and vegetables provide vitamin C, carotene and some of the B vitamins. However, these vitamins are not very stable and they are easily destroyed during storage or cooking. So don't store fresh fruit and vegetables for long; don't prepare and leave them for long before cooking; cook them in the minimum amount of boiling water or steam or microwave them (as vitamins dissolve into water); eat them as soon as possible after cooking.
3. Meat, fish and alternatives. Alternatives include eggs, nuts, pulses (such as beans, lentils, chickpeas) and textured vegetable protein. Eat moderate amounts and choose lower fat versions whenever possible. They are a major source of protein, vitamins and minerals. Try to eat at least one portion of oily fish (e.g. sardines or salmon) a week.
4. Milk and dairy foods. Eat or drink moderate amounts and choose lower fat versions when you can. These foods are particularly high in calcium and good sources of protein. Skimmed and semi-skimmed milk contain just as much calcium and protein as whole milk. Exposing milk to sunlight reduces the vitamin content and UHT milk has lower amounts of vitamins so use fresh milk whenever possible.
5. Foods containing fat and sugar. Eat sparingly, i.e. infrequently and/or in small amounts.

Planning your pregnancy

If you have a medical condition it is important that you see your GP to discuss your planned pregnancy. A healthy body will increase the likelihood of you having a healthy pregnancy and a healthy baby. The following are a few guidelines to help you prepare your body for pregnancy.

Eat a healthy diet

Eating well before you are pregnant gives your body a store of nutrients for your baby, especially if you have a poor appetite during the first few weeks of pregnancy.

Try to be the correct weight for your height

You can find out what your correct weight should be by looking at a height and weight chart, like one for BMI (but once you are pregnant this chart is no longer applicable). Some underweight women have difficulties in becoming pregnant, so putting on a little weight may help conception. Being overweight should not prevent conception, but may lead to increased tiredness and back problems during pregnancy. If you are slightly overweight, try to lose a little weight. This does not necessarily mean eating less, just eating more healthily by cutting down on foods high in fat and sugar and exercising regularly. If you are very overweight, you could see your GP for a referral to a dietician for help to lose weight before you become pregnant.

Take a folic acid supplement and check your dietary folate intake

Folic acid is also known as folate when it occurs naturally in foods. An increased intake of folate may prevent neural tube handicaps such as spina bifida. If you are planning a pregnancy you are advised to take a daily supplement of 400 microgrammes of folic acid (a microgramme is one millionth of a gram, also seen as 400 mcg, 400 µg or 0.4 mg) as soon as you stop using contraception and for the first three months of pregnancy.

Additionally, try to eat 300 microgrammes of folate every day from dietary sources. Good sources of dietary folate include fortified breads and breakfast cereals and vegetables (try not to overcook vegetables as this reduces their folic acid content).

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Some dietary sources of folate	microgrammes of folate per serving
Brussels sprouts (90 g)	100
Spinach (90 g)	80
Green beans (90 g)	50
Frozen peas (90 g)	40
2 slices fortified soft grain bread	105
2 slices wholemeal bread	40

If you smoke try to give up

Smoking may affect fertility and has harmful effects on the developing baby. If you can't give up, cut down.

Limit alcohol consumption

Try not to have more than 8 units a week and no more than two units in a day. (A unit = half pint of beer, lager or cider; one glass of wine).

Exercise regularly

Exercise is essential in order to get your body into a healthy condition. It will also benefit your developing baby. If you haven't exercised before, start gently, choose an exercise that you enjoy and ideally one which you can integrate into your lifestyle. Walking or swimming are ideal as they are exercises which you can continue during your pregnancy.

Avoid high intakes of vitamin A

Very high intakes of vitamin A (retinol) during the first few weeks of pregnancy may harm your baby. In the early days when you may not know you are pregnant it is advisable to avoid eating foods that are particularly high in vitamin A, e.g. liver, liver sausage and cod liver oil. Vitamin A found in fruits and vegetables (carotene) are safe to eat.

During your pregnancy

The guidelines to get your body into a healthy condition before your pregnancy remain just as important during your pregnancy. A healthier lifestyle will benefit your developing baby, help you to cope with your pregnancy (or the remainder of it), the birth, breastfeeding (should you choose to do so) and the demands of a newborn. The following are some lifestyle considerations to help you have a healthy pregnancy and give birth to a healthy baby.

Eat a healthy diet

As well as eating a healthy diet, there are additional food safety precautions to follow while you are pregnant. These will be covered in the next section. It is not advisable to try and lose weight while you are pregnant unless your doctor or midwife advises you to do so. A woman of normal weight does not need any extra calories during the first six months

of pregnancy and then only an extra 200 calories a day during the last three months.

Take a folic acid supplement and check your dietary folate intake

It is important to take a daily supplement of 400 microgrammes of folic acid (400 µg or 0.4 mg) until the end of the 12th week of pregnancy. Also try to eat more foods high in folate and choose breads and breakfast cereals which have added folic acid.

Particularly important nutrients

Your nutritional needs should be met if you eat a balanced diet (with the exception of folic acid). However, the following nutrients are particularly important, especially if you are on a special diet, e.g. you are a vegetarian.

Limit caffeine

Caffeine is found in coffee, tea, cocoa and some fizzy drinks. The current advice is that moderate amounts are safe to drink, i.e. up to five cups of ordinary strength coffee a day or 10 cups of tea a day.

Limit alcohol

Try not to have more than eight units a week and no more than two units in a day. (A unit = half pint of beer, lager or cider; one glass of wine).

Stop smoking

If you find it impossible to stop, then cut down by as much as you can.

Exercise regularly

It is important that you still exercise during your pregnancy, but see one of your health care team (e.g. GP or midwife) before you do. Both you and your baby will benefit and you will find it easier to get back into shape after the birth. However, avoid jerky or bouncy movements and high risk exercises such as step aerobics, horse riding and skating. Avoid scuba diving and water-skiing as well as saunas, steam rooms and jacuzzis. Swimming and walking are ideal. If you choose to go to exercise classes, make sure that your instructor is qualified and knows that you are pregnant.

Try to exercise at least three times a week and only exercise for as long as you feel comfortable. If you exercised before you were pregnant, you will obviously not be able to exercise at the same intensity. If you were inactive before you became pregnant, start gently.

The key is to exercise at a level that feels comfortable. Drink plenty of fluids and avoid exercising in hot, humid weather. After the first trimester, avoid exercises which involve lying on your back. Stop exercising if you feel any discomfort, pain, dizziness, faintness, shortness of breath, or contractions or experience any vaginal bleeding or fluid loss.

Nutrient	Function	Foods
Calcium	Development of baby's teeth and bones.	Dairy products, dark green leafy vegetables, bread, pulses, dried fruit, fish with edible bones, baked beans, nuts, sesame seeds, enriched soya milk.
Iron	For you and your baby. Formation of red blood cells.	Lean red meat, pilchards, dark green vegetables, beans, lentils, eggs, nuts, dried fruit, wholemeal bread, breakfast cereals (see note 1)
Folic acid	Development of baby's organs and tissues, reduces risk of spinal defects such as spina bifida.	See table above (see note 2)
Vitamin C	Helps absorb iron.	Most fruit and vegetables, richest sources are blackcurrants, citrus fruits and citrus fruit juices.
Vitamin D	Helps absorb calcium.	Oily fish (e.g. herring, tuna), eggs, milk, butter, margarine, low fat spreads (see note 3)
Omega-3 essential fatty acids	Baby's brain and nerve development in late pregnancy.	Cold water fish, e.g. mackerel, herring, salmon, sardines
Vitamin B12	For healthy blood.	Only non-animal food source is seaweed but found in fortified foods such as marmite and breakfast cereals.

Note 1 Iron in red meat is absorbed more efficiently than iron from other foods so if you are vegetarian make sure you get enough iron. You can increase the amount of iron you absorb from cereals and vegetables by consuming drinks or foods that contain vitamin C with a meal and avoiding tea and coffee at meal times.

Note 2 Also take daily supplement of 400 microgrammes folic acid (400 µg or 0.4 mg) for first 12 weeks of pregnancy (ideally starting at time of conception).

Note 3 Made naturally in response to sunlight so take care if you do not expose your skin to much sunlight.

Pelvic floor muscle exercises

These need special attention. Ask one of your health care team to explain how to exercise your pelvic floor muscles. It is important to perform these exercises as they are put under a lot of strain during pregnancy. Weak pelvic floor muscles result in urinary incontinence, bowel dysfunction, low back and pelvic pain.

Rest

Try to rest as much as possible. You may often feel very tired, particularly in the first and third trimesters. This is natural: your body is transforming a cell into a baby. Don't expect to be able to get as much done and don't expect too much of yourself. Even if you can't sleep during the day, put your feet up whenever you can.

Coping with changes

As well as feeling tired and nauseous, hormonal changes may put you on an emotional roller coaster. You may get upset and cry more easily, get irritable more easily or lose your temper more quickly. If you are aware that your hormones are responsible, it may make these times a little easier to cope with. You may go through a range of feelings and worries about the pregnancy, the birth, coping with your baby and being a parent.

Talking about how you feel and the concerns you may have is important and helpful, whether it be to your partner, a friend or a member of your health care team. A healthy lifestyle will also help you to cope (i.e. eat well, rest, exercise).

Common health problems

Your body undergoes enormous changes during pregnancy and it is common to suffer from a range of problems, for example nausea, faintness, headaches, nose bleeds, bleeding gums, backache, indigestion, heartburn, constipation, haemorrhoids (also known as piles), varicose veins, tiredness and sleeplessness, swollen extremities (fingers, ankles and feet) and itching. Your doctor or midwife will be able to help you with these or any other problems or concerns you may have and advise you on how to cope with them.

Taking medicines

If you take regular medication, talk to your doctor. Check with your GP or pharmacist before taking over-the-counter or prescribed medicines, vitamin or mineral supplements. Also check with a qualified practitioner before taking any herbal or alternative remedies and your pharmacist before using any massage or bath oils.

X-rays

X-rays should be avoided during pregnancy if possible. Make sure your dentist knows you are pregnant.

Avoiding infections from food and animals

Food poisoning and infections can occur in pregnancy and on rare occasions can harm your baby. There are precautions you can take to avoid infections like listeriosis, toxoplasmosis and salmonellosis from food and animals.

Listeriosis, caused by the bacterium *Listeria*, is a rare infection (affecting approximately 1 in 20,000 pregnancies) which causes an illness resembling mild flu in the mother but may cause miscarriage or severe illness in the newborn baby. It is found in mould ripened soft cheeses, blue-veined cheeses, pate, cooked-chilled meals and ready-cooked poultry.

Toxoplasmosis is also very rare (affecting approximately 1 in 50,000 pregnancies) caused by an organism, *Toxoplasma*, found in raw meat and cat faeces which can seriously affect an unborn baby.

Salmonellosis (caused by bacteria *Salmonella*) is a common cause of food poisoning associated with raw poultry and meat and raw or lightly cooked eggs. Although salmonellosis is not a disease which can pass through to your baby it is advisable to avoid an infection during your pregnancy.

Food safety

Cheese:

Cheeses which are safe to eat are (i) hard cheeses, e.g. Babybel, Cheddar, Edam, Emmental, English goats' cheddar, Feta, Gouda, Gruyere, Jarlsberg, Mozzarella, Parmesan; (ii) soft and processed cheeses, e.g. Cottage cheese, spread, processed cheese, Borsini, Mascarpone, Philadelphia, Quark, Ricotta.

Cheeses to avoid are (i) soft ripened cheeses, e.g. Brie, Camembert; (ii) blue-veined cheeses, e.g. Blue Brie, Danish Blue, Gorgonzola, Roquefort, Stilton.

Yoghurt, Fromage Frais, Soured Cream, Creme Fraiche:

Any variety of these are safe to eat, i.e. natural, flavoured and biologically active.

Pate:

Avoid any type of pate unless it is tinned.

Ready-cooked meals and ready to eat poultry:

Reheat these foods thoroughly until they are piping hot.

Eggs:

Only eat eggs which have been cooked until both the white and yolk are solid. Avoid raw eggs and foods containing them (e.g. mousses and homemade mayonnaise). Commercially prepared foods, made with pasteurised eggs (e.g. bottled mayonnaise) are safe to eat.

Meat:

Cook meat until it is well done. All meat products, e.g. sausages and burgers, should also be cooked thoroughly so that the juices run clear.

Milk:

Avoid raw milk from cows, sheep and goats. Only drink pasteurised, sterilised or UHT (ultra-heat treated) milk.

Vegetables and salads:

Wash these foods carefully to remove soil and dirt, which may contain *Toxoplasma*.

Shellfish:

It is advisable to avoid shellfish. If you do wish to eat prawns for example, buy them from a reputable source, pre-packaged and date-stamped, make sure they have been thoroughly cooked or eat them in a reputable restaurant.

Liver:

Avoid liver and liver sausage which contain large amounts of the animal form of vitamin A. Cod liver oil supplements should also be avoided (see Taking medicines above). The plant form of vitamin A found in fruit and vegetables is safe.

Ice cream:

Avoid soft- whip ice cream from machines (*Listeria* can survive at low temperatures if the machines are not clean).

Peanuts:

Peanut allergy is increasing in children and it is thought that it may be caused by being exposed to peanuts at a young age. Current opinion is that if you, your baby's father or any of your previous children suffer from asthma, eczema, hay fever or food allergies it is sensible to avoid peanuts and products containing them during your pregnancy (and while breast feeding). Also check whether peanuts are an ingredient on commercial products.

Handling food

Below is a checklist of simple precautions you can take while handling food.

- ◆ Always wash your hands before and after preparing food.
- ◆ Use a separate board for preparing raw meat and poultry.
- ◆ Wash boards, knives and your hands after preparing raw meat.
- ◆ Make sure that raw meat does not come into contact with other foods while cooking.

- ◆ Store raw meat covered at the bottom of the fridge, separate from cooked foods.
- ◆ Defrost frozen meat thoroughly before cooking.
- ◆ Cook foods thoroughly.
- ◆ When reheating food, make sure it is piping hot all the way through.
- ◆ Don't eat food which has passed the 'use-by' date on packaging.
- ◆ Keep fridge temperature below 5 degrees C; freezer below -18 degrees C.
- ◆ Try to keep your pets out of the kitchen; particularly off food-preparation surfaces.

Handling animals

Animals can also be a source of infection, so here are a few precautions to take with your pets, especially cats, and sheep.

- ◆ After handling pets or animals: do not touch your mouth and wash your hands before you eat or prepare food.
- ◆ Use different utensils and bowls for your pets: and wash them separately from your own.
- ◆ Cats: keep cat litter-trays clean; try and avoid emptying cat litter trays while you are pregnant or if no one else can do it for you, wear rubber gloves (or disposable ones); wash both your hands and the gloves afterwards.
- ◆ Always wear gloves when gardening: as your garden soil may have been fouled by cats; wash both your hands and the gloves afterwards.
- ◆ Sheep: do not help with lambing, handle new-born lambs or come into close contact with sheep who have just given birth as sheep may carry toxoplasmosis, listeriosis or chlamydia organisms.

This article was written by Dr Kate Parmenter in 2001 using best information on healthy pregnancy that could be found at that time.