

# Pregnancy and infancy

From the moment of conception – and even before – there are steps you can take to help give your child a healthier chance.

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## ISSUES:

- Eating safely and well
- Smoke-free living
- Avoiding alcohol
- Building a bond with bacteria
- Can allergies be prevented?





## Eating safely and well

“Eating for two” is not so much about eating lots more of your regular diet, as about getting you and your baby the right nutrients to help both of you prepare during those crucial nine months. Remembering a few simple rules will keep you on the right track:

- Plenty of fruit and vegetables. Fresh is usually highest in vitamins but frozen and even tinned or dried products are useful. Have five portions of fruit or veg a day.
- Eat some starchy foods such as rice, bread and pasta. Wholegrain varieties have some extra vitamins and minerals and more fibre than the refined varieties.
- Dairy foods such as milk, cheese and yogurt supply calcium which builds and maintains bones and teeth – important for mother and baby. Spreads are fortified with vitamin D – an essential bone-building nutrient that pregnant mums don't always get enough of.
- Fibre will help fight constipation – affecting 40% of pregnant women – again choose wholegrain varieties of bread and rice but don't forget there's fibre in pulses such as baked beans and lentils; also breakfast cereals and oatmeal and of course fruit and vegetables.
- Protein-rich foods such as chicken, lean red meat, eggs and fish are especially rich in protein and iron needed for growth.

For more information on eating during pregnancy go to [www.eatwell.gov.uk](http://www.eatwell.gov.uk)

### Ask the Expert

Expectant mothers should be aware of not only the beneficial foods during pregnancy but also what foods could be harmful. Cheese is a good source of vital calcium but avoid cheeses such as Camembert, Brie and also blue cheeses as they are made with mould that may contain the bacterium *Listeria* which could harm the unborn baby. Pâte, even vegetable varieties, can also contain *Listeria*.



Make sure you cook food thoroughly as raw or undercooked food – especially meat and eggs – can contain harmful bacteria that could cause food poisoning, which is particularly uncomfortable when you're pregnant.

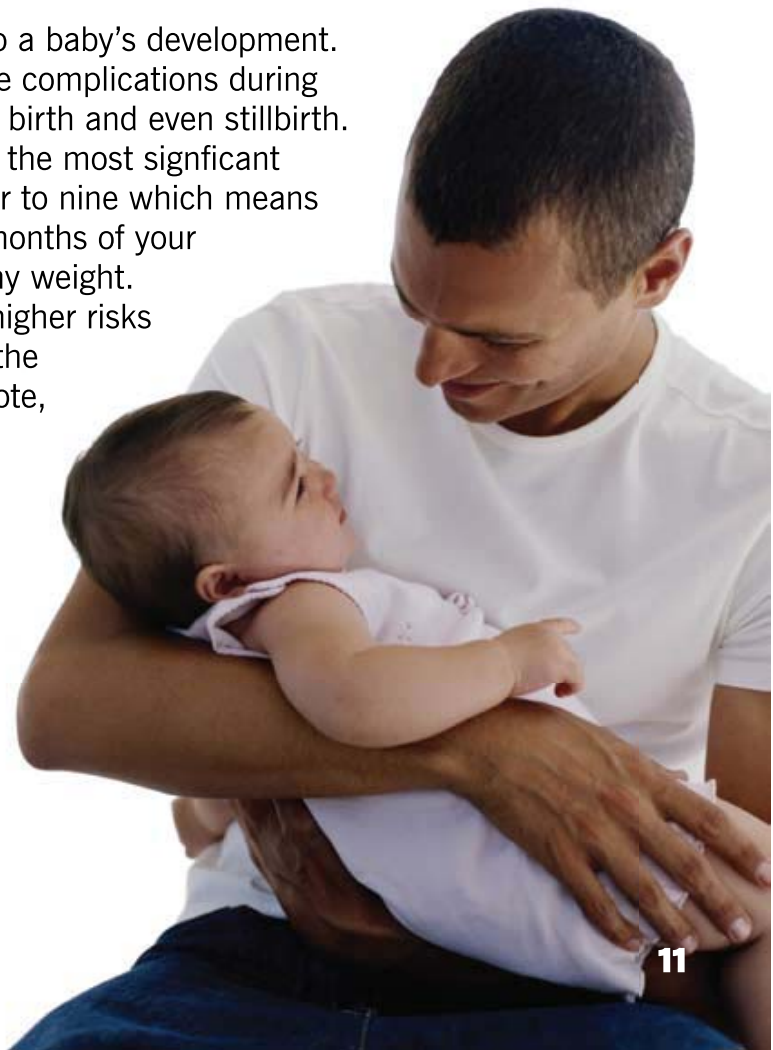
Oily fish such as fresh tuna and mackerel contain nutrients which are essential to your baby's development but because they also contain low levels of pollutants that can accumulate in the body you should limit yourself to no more than two portions a week.

Reduce caffeine intake too as high levels can result in low birth weight.

**Fiona Hunter**, Health Writer

### Smoke-free living

Smoking at any stage of pregnancy is harmful to a baby's development. Serious problems resulting from smoking include complications during labour, increased risk of miscarriage, premature birth and even stillbirth. Smoking can also slow your baby's growth, and the most significant time for this to be affected is during months four to nine which means that, if you stop smoking within the first three months of your pregnancy, your baby is still likely to be a healthy weight. Sharing a smoky home is also associated with higher risks of miscarriage, stillbirth, under-development of the baby and cot death. Prospective Dads should note, for men aged 30 to 40, smoking increases the risk of being impotent by about 50%. See page 41 for top tips on quitting smoking, and go online to [www.gosmokefree.nhs.uk](http://www.gosmokefree.nhs.uk)



### Avoiding alcohol

Alcohol, like cigarette smoke, is a poison that you would probably prefer not to introduce to your baby. Drinking too much alcohol on a regular basis during pregnancy can lead to low weight at birth as well as affecting your child's physical and mental development. Advice from the National Institute for Health and Clinical Excellence (NICE), issued in March 2008, states that pregnant women (and women planning a pregnancy) should avoid drinking alcohol at all in the first three months of pregnancy to guard against the possibility of an increased risk of miscarriage. If you choose to drink while you are pregnant, set your limit to 1 or 2 UK units of alcohol once or twice a week – at this low level there is no evidence of any harm to the unborn baby. You should not get drunk or binge drink (drinking more than 7.5 UK units of alcohol on a single occasion) while you are pregnant. See the full guidance on [www.nice.org.uk](http://www.nice.org.uk) and read more about alcohol and pregnancy on [www.direct.gov.uk/en/Parents](http://www.direct.gov.uk/en/Parents)

### Building a bond with bacteria

A baby leaves the sterile environment of its mother's womb to enter a world full of bacteria, so it needs help from day one. All babies are born with a "leaky" gut wall which means that during the first few days they can absorb their food extra-quickly. The first milk, or colostrum, that the mother produces in the earliest days, delivers a concentrated boost of nutrients and immune boosting substances to the fragile newborn infant. So, even being able to breastfeed for a small amount of time can have powerful benefits.

It is during these first few days of a baby's life that the population of bacteria begins to develop in the baby's intestine. Breast-fed babies have been shown to develop greater concentrations of the beneficial types of bifidobacteria species than do formula-fed infants, probably because breast milk contains factors that promote the growth of this type of bacteria. However by the time the baby begins its second year, whether it has been breast or bottle-fed, the make-up of its population of gut bacteria will already resemble that of an adult.



## Can allergies be prevented?

The number of children suffering from allergies is on the increase and, sadly, British children top the league table. The international study of asthma and allergies showed 47% of UK children (3.5 million) now suffer from allergies such as asthma and eczema. Cases of asthma here have doubled in the last 20 years while hay fever and eczema have trebled<sup>3</sup>.

Asthma UK says 1.1 million children in the UK are being treated for asthma while the National Eczema Society reports that up to 20% of school-age children and one in twelve adults have eczema. For news on allergy research see [www.aaircharity.org](http://www.aaircharity.org)

Susceptibility to asthma and eczema can run in families. But why they should be increasing is not yet understood. Some scientists speculate that this is the price we pay for a cleaner society (less exposure to germs when growing up), or to the higher levels of pollutants we are all exposed to. Although the answers are not clear, research is indicating that there might be ways a mother can influence her child's risk of developing an allergy.

Not smoking while pregnant or breastfeeding, as well as reducing exposure to household mites and moulds in the family home may help make allergy development less likely. Healthy diet also looks like a factor – a series of recent studies conducted in centres in Spain and Greece have reported that eating a Mediterranean diet during pregnancy could protect children against asthma and allergies. Children eating a diet rich in olive oil, fruit, vegetables and fish were less likely to have asthma symptoms by the time they were six years old<sup>4</sup>.

### Research focus

Exposing pregnant mothers and infants to more, rather than less, bacteria could help stimulate the growth of the immune system and potentially play a role in preventing allergies, suggest the findings of a Finnish team of researchers who treated a thousand pregnant women with either probiotic supplements or a placebo (dummy treatment). All the women were from families with a history of allergies. Follow-ups after birth found that kids born to the group of mums treated with probiotics were 30% less likely than the placebo group to develop the skin condition atopic eczema, which often precedes allergies. The scientists speculate that exposure to microbes, such as we used to experience in less hygienic bygone days, may have had an allergy-protective effect on the babies' immune systems, which the bacteria in the probiotic product could be mimicking<sup>5</sup>.

