

# A baby booster that could benefit us all

Women wanting to become pregnant have long been encouraged to up their intake of folic acid to protect their babies from birth defects. But, in the latest of our series of features leading up to the BA Festival of Science in Norwich, **EMMA LEE** discovers folates are thought to have a much wider range of health benefits for all of us.

**H**e ate spinach because he reckoned it built up his bulging biceps. What Popeye probably didn't realise was that his favourite vegetable could also help cut the risk of strokes and heart disease.

Whether we choose to follow the advice or not – and statistics, including our expanding waistlines, show that some of us don't – we know that we should be taking regular exercise,

cutting down on processed food and eating five portions of fruit and veg a day.

In some countries, such as Canada, that target is even higher – between five and 10 portions a day.

Eating a diet rich in fruit and vegetables has a range of benefits – they're packed with vitamins and minerals so they can help you maintain a healthy weight, they're a good source of fibre and antioxidants and they can reduce the risk of heart disease, stroke and some cancers.

And, of course, there's a tasty assortment to choose from.

The importance of folic acid to women who want to conceive a child and in the early stages of pregnancy has been well documented.

Studies have shown that it can protect babies from what are generally known as neural

tube defects such as spina bifida and cleft palate in the womb.

But doctors have also found that folates, which are found naturally in green vegetables such as spinach and broccoli and oranges, can reduce the risk of heart attack and stroke.

And it has also been discovered that they can reduce levels of a chemical called homocysteine, high levels of which are linked to heart disease, and, according to some research, Alzheimer's disease. It makes a strong case for basic foods such as flour to be fortified with folic acid at source, as already happens in countries including the US, Canada, Chile and Hungary.

The policy has been ruled out by the Food Standards Agency before, but it is currently supporting a project at the Institute of Food Research at Colney near Norwich, which is holding an open day on September 9 as part of the BA Festival of Science, to determine the best way of raising the folate status of the general population.

The project is being managed by Dr Caroline Wolfe.

As she explains: "Green leafy vegetables, liver and yeast extracts are rich sources of folates, and some foods are fortified with a synthetic version of these vitamins called folic acid. They are important for preventing some anaemias and help cells to make copies of themselves.

"Folic acid supplementation is advised for women prior to, and for the first 12 weeks after conception, as it also reduces the risk of birth defects such as spina bifida and cleft palate.

"But a good folate level is vital for the whole population, not just pregnant women.

"Folic acid is its synthetic form. The body absorbs it and converts it into its useable natural form.

"The Food Standards Agency want to know whether it's better to supplement people with synthetic folate or use naturally occurring folate. We are comparing these two versus a placebo. And a fourth trial group is being supplied foods which are rich in folate such as broccoli, spinach, wholemeal bread and oranges to enhance their normal diet."

The trials are 16 weeks long, and Dr

Wolfe needs men and women to take part in the study.

Volunteers can be smokers and non smokers and aged between 18 and 65.

You can't take part if you are pregnant or you have been pregnant within the last 12 months; are breastfeeding; have donated or intend to donate blood within 16 weeks of the first or last study samples; you are receiving vascular disease or anti-hypertensive drugs; you have diabetes or you take B-vitamin or folic acid supplements on a regular basis.

You will be allocated randomly to one of the four groups and the amount of folate you will be given will be equivalent to the recommended daily allowance.

■ For information about taking part in the study, e-mail [ifr.folate@bbsrc.ac.uk](mailto:ifr.folate@bbsrc.ac.uk) or phone 01603 255394.