Folate and folic acid

Introduction
Folate is a water soluble B vitamin that is found naturally in food. Folic acid is the synthetic form of folate that can be found in supplements and is added to fortified foods. Folic acid is more easily absorbed than naturally occurring folate.

What does folate do?
Folate is required to make DNA and RNA, without which cells cannot divide. This is especially vital during periods of rapid cell division and growth, such as in infancy and during pregnancy. Adults and children need folate in order to make normal red blood cells and prevent anaemia.

Folate and pregnancy
Folate is important to the healthy development of babies in early pregnancy. A baby's growth is the most rapid in the first weeks of life – often before a woman is aware she is pregnant. The neural tube closes and fuses very early in life, becoming the baby's brain and spinal column. If the tube doesn't close, the result is a neural tube defect such as spina bifida.

The National Health and Medical Research Council recommends that women who are pregnant, or considering becoming pregnant, take folic acid supplements at least one month before and three months after conception to reduce the risk of birth defects. As many pregnancies are unplanned, it is recommended that woman follow a folate rich diet throughout their childbearing years. Folate rich foods include green leafy vegetables, broccoli, citrus fruits and juices, legumes and some nuts. For more information on folate in pregnancy please refer to Food Safety Fact Sheet 31 – Healthy Eating in Pregnancy.

Folate deficiencies
There are some medical conditions that increase the body’s need for folate, or result in the body excreting more folate. These include pregnancy and lactation, alcohol abuse, kidney dialysis, malabsorption, liver disease and some certain kinds of anaemia. Some medications will also affect folate levels in the body. Please consult your medical practitioner for further information.

Folic acid fortification
From September 2009, a requirement was introduced that wheat flour for bread making must contain folic acid. This means that bread including all plain, fancy and sweet breads, rolls, bagels, focaccias, English muffins and flat breads containing yeast must contain added folic acid.

Other products that might be made with bread-making flour include crumpets, scones, pancakes, pikelets, crepes, yeast donuts, pizza bases and crumbed products.

Flour mixes for domestic bread making must also contain folic acid, however, other types of packaged domestic flour are not required to have folic acid added.
Organic bread is not required to contain folic acid. Bread made from other cereal grains such as rice, corn or rye, provided they do not contain wheat flour, do not have to contain folic acid. However, manufacturers may add folic acid if they wish.

Some manufacturers voluntarily choose to add folic acid to other foods including breakfast cereals, yeast spreads and fruit juice.

It should be noted that consumption of foods fortified with folic acid does not negate the need for women who are pregnant or considering becoming pregnant, to take folic acid supplements.

**For further information**
Queensland Health has a variety of fact sheets with detailed information on food safety. Fact sheets can be accessed from the Queensland Health website at [www.health.qld.gov.au/foodsafety](http://www.health.qld.gov.au/foodsafety).

Further information relating to the fortification of food can be found on the Food Standards Australia New Zealand website at [www.foodstandards.gov.au](http://www.foodstandards.gov.au).