Policy Group

New Zealand Food Safety Authority

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Wellington

Submission to New Zealand Food Safety Authority on the Proposed Amendment to the New Zealand Folic Acid Standard

SUBMISSION

This submission is from:

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The Cancer Society of New Zealand Supports **Option 1 Mandatory fortification from 30 September 2012 as defined in the current standard. We would not like to see further delay in commencement given there have already been two.**

We support this option on the grounds that: we acknowledge the proven benefits of adequate intake of folate on health and in particular the importance of adequate intake for pregnant women to reduce the likelihood of neural tube defects. We are, however, concerned that there has been doubt as to the benefit, for those with cancer precursors or cancer.

The Cancer Society of New Zealand supports a healthy diet that includes food containing folate and would like to see an emphasis also put on food security to ensure all New Zealanders have access to nutritious food at an affordable cost.

At this stage there is no convincing scientific evidence that folic acid will increase harm to the general public. However in older individuals who may harbour cancer precursors, as well as cancer patients, care in preventing excessive folic acid intake is warranted. The American Cancer Society has summarised the relevant cancer related evidence on their website www.cancer.org which was accessed on 15 June 2012 and is copied below.

Dr Jan Pearson,

15 June 2012

Evidence:

How folic acid might affect cancer risk is not exactly clear. Cells need folic acid to make and repair DNA when they divide to create new cells. Folic acid may be involved in how cells turn certain genes on and off. Scientists believe low levels of folic acid can lead to changes in the chemicals that affect DNA, which may alter how well cells can repair themselves or divide without making mistakes. These changes might in turn lead to cancer.

Some studies that looked at large groups of people have found a link between lower intake of folic acid and higher risk of certain types of cancer. But these studies were done at different times and looked at different groups of people around the world, which can make it harder to compare findings and draw conclusions. The United States has enriched grain products with folate since 1998. This means it is likely that far fewer Americans are now folic acid-deficient than before 1998 (or in other countries that don't enrich foods). Therefore, it is difficult to know how the results from previous studies might apply to people today, as today's baseline folate levels here are likely higher.

Several studies have found that folic acid may be linked to a lower risk of colon cancer. A large study that tracked U.S. nurses from 1980 to 1994 reported that the women who took in more than 400 mcg of folic acid per day were much less likely to get colon cancer than those with a lower intake (less than 200 mcg). An even larger study involving both men and women found a weaker link overall between taking supplements that contained folic acid and a lower risk of death from colon cancer. In that study, taking folic acid was somewhat more strongly linked to lower risk of colon cancer death in people who had 2 or more alcoholic drinks a day. Other studies have reported results like this, but the large EPIC study in Europe reported no significant link between colon or rectal cancer risk and folic acid levels in the blood.

Studies of folic acid and breast cancer have also had mixed results. The large study of nurses mentioned above found that folate intake did not have a significant effect on breast cancer risk overall. But women who had one or more alcoholic drinks a day and took in enough folate had lower breast cancer risk than those who drank and did not take in enough folate.

A 2003 study of more than 66,000 older women showed that women who drank more alcohol were more likely to have breast cancer. But in this study, the drinkers with higher folic acid intakes did not have less breast cancer.

Some studies that looked at large groups of people have found folic acid is linked to lower rates of ovarian cancer in women who have at least one drink a day, but research in this area is not conclusive.

Some research has also suggested that folic acid may be linked to lower risk of cancers of the pancreas, esophagus, and stomach. Further research is needed to clarify these findings.

Whether folic acid works against cancer may also depend on when it is taken. Some researchers think that folic acid may not be helpful, and could even be harmful, in people who already have cancer or pre-cancerous conditions. For

example, two randomized, controlled trials found that folic acid supplements had no effect on women who already had pre-cancerous conditions of the cervix. Along those same lines, drugs that block folic acid are routinely used to treat cancer. This seems contradictory, but folic acid is used to make DNA and RNA. These substances are needed by normal cells as well as cancerous cells.

Overall, the evidence that folic acid can help prevent some types of cancer is promising but not conclusive. It is also unclear whether folic acid can help to offset some of the known cancer-boosting effects of alcohol. Further research involving randomized, controlled clinical trials is needed to find out what effect folic acid may have on the risk of cancer.

A study published in 2010 combined the results of 8 large clinical trials of folic acid supplements. The conclusion was that folic acid supplements had no significant effect on the risk heart attacks, strokes, or cancer (considering all types of cancer combined).

At this time, it is hard to say how each single nutrient or combination of nutrients affects a person's risk of cancer. On the other hand, studies of large groups of people have shown that those who eat lots of vegetables and low amounts animal fat, meat, and/or calories have lower risks for some of the most common types of cancer.

Until more is known about this, the American Cancer Society (ACS) recommends eating a variety of healthful foods--with most of them coming from plant sources--rather than relying on supplements. Supplements may help some people, such as pregnant women, women of childbearing age, and people with restricted food intakes. If a supplement is taken, the best choice for most people is a balanced multivitamin/mineral supplement that contains no more than 100% of the "Daily Value" of most nutrients. The ACS also recommends that those who drink alcohol should limit the amounts they consume.

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