

Student 5: Low Achieved

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Fortification of food means to add important vitamins and minerals to it at some stage during the processing. Foods lose a lot of their original nutrients during the processing so some nutrients are added to replace what the food has lost, or are added when they were never in the food in the first place. Foods are generally fortified to increase society's intake of important minerals and vitamins; this will help prevent many health problems that can occur as a result of certain nutritional deficiencies. Iodine was added to salt in the 1940's to help prevent goitre in New Zealanders with great success.

1

It is well known and documented that breakfast is the most important meal of the day. Eating breakfast each day helps give you all the necessary nutrients needed to help maintain good weight control and concentration in school or work. Generally by eating breakfast people consume more fibre, have higher levels of vitamins and minerals including iron, calcium and magnesium. Breakfast foods usually contain lower levels of fat although this needs to be balanced against the increased number of breakfast cereals that contain too much sugar and highly processed grains that have had their good nutrients removed because of processing (1). Many of today's widely advertised breakfast cereals including milo cereal which has 27.2g of sugar, 120mg of sodium and 1.5g of saturated fat, bugs n' mud has 38g of sugar, 190mg of sodium and 4g saturated fat and Nutrigrain which has 32.0g sugar, 560mg sodium and 0.1g saturated fat are fortified with vitamins and minerals such as calcium, iron, B vitamins like niacin, thiamine, riboflavin and folate. While the advertising appeals to young children, mothers are pressured into buying these by their children. It is however not widely advertised that many of these cereals have excessively high amounts of sugar, sodium, saturated fat and also low fibre. Healthy food guide recommended that you have less than 15g sugar per 100g, less than 400mg sodium per 100g, less than 3g of saturated fat per 100g and more than 5g of fibre per 100g. The low socio-economic section of society is mostly affected by this dilemma as they are often under educated and are more easily influenced by advertising and give into pester power, parents want to give their children something that is seen as normal by the rest of society. The effects this can have on the low socio-economic families is that if they have excessive sugar intake could lead to tooth decay or obesity. However, if they do eat fortified breakfast cereals they may be less likely to get bowel disease and may get essential nutrients they wouldn't get otherwise to live a healthy lifestyles.

2

Is it the government's right to force folate into breads and cereals for the whole population when possibly it is just a percentage of the population that are missing the required nutrients?

3

Studies have proved that an increase of folic acid and iodine is needed by pregnant woman, by having these nutrients the risks of spina bifida is reduced, by re adding folate which was removed from wheat during milling would cut the incidence of spina bifida which is the most common type of neural tube defect (NTD) by about 80 % and total birth defects by 40% (2). Wellington paediatric surgeon Brendon Bowkett stated in the Dominion Post on 09/11/2010 "Not fortifying bread was pure neglect and not to do something that was straight forward and preventative, I think is a real tragedy." Iodine is also an essential nutrient required in small amounts for normal growth and brain development in unborn babies and infants.

4

There are other ways to increase your intake of essential nutrients. For example important sources of iodine are found in foods such as seafood, milk and eggs. Folate is found in fresh, raw or lightly cooked leafy green vegetable such as broccoli and spinach, fruits and

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juices such as orange juice, dried beans and peas. (3). Is it being suggested that we would be just as well eating fortified bread instead of fresh fruit and vegetables?

The addition of folate has raised safety concerns. Two peer-reviewed US studies have linked excessive folate to higher rates of prostate cancer in men and inflammatory bowel disease in children. In elderly people high levels of folic acid may hide low levels of vitamin B12, this may lead to brain damage. (4). However Otago University professor of human nutrition Murray Skeaff said unpublished research shows “No significant increase or decrease in cancer rates between people taking folic acid and those who were not.” This finding is based on studies involving 35,000 people in several countries since the mid 1990’s.

6

The addition of folic acid to bread is expected to provide only 140mcg a day. However the Ministry of Health website reports on dietary studies by the University of Otago suggest the daily intake for pregnant women is 600mcg and for breastfeeding women 500mcg. This indicates women will still need to take a supplement. The president of the Bakers Association Laurie Powell has said he is against the addition of folic acid to bread as women will stop taking the supplements as they think that just having the bread will be enough. Actually they will only get about 140µg which is the average of 1.5 slices of bread women usually eat each day. 800µg is needed each day to prevent unborn children getting Neural tube defects. (5). So women will still need to take a supplement to reach this level, but will they know that? Adding folic acid to bread will help low socio-economic groups because they may be less likely to use contraception and are therefore more likely to have unplanned pregnancy or take supplements.

7

Ursula Arens, spokes woman for the British Dietetic Association has been quoted in The Independent 03/02/2012 saying “Food fortification is as much about ethics and society as science. While traditionally staple foods such as flour, cereals and spreads have been seen as good vehicles for added nutrients as such a large proportion of the population regularly eat them, the question remains- is mass medication through the food we eat the way to go?”

8

A possible way forward could be to add folic acid to low cost breads only. This would help low socio economic families in particular because they are the ones less likely to take folic acid supplements and are more likely to have unplanned pregnancies. This would also mean people could choose to select this fortified bread or not.

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(References 1 – 5 were listed).