



Soya foods and Children: The benefits of eating soya early in life

Key propositions

- Young people need to adopt a healthy diet and lifestyle to support a lifetime of good health.
- Obesity among children is linked to many health complications, both in childhood and later in life. Including more plant foods into children's diets, such as soya foods, can be helpful in maintaining a healthy weight.
- Heart Disease is the major cause of death in the UK. As the origins of heart disease can start in childhood, it is important to encourage a heart healthy diet in the young.
- Breast cancer rates in Asian countries are low and it has been suggested that soya foods may help to explain this.
- Including soya foods into children's diets should be considered as they are nutritious and provide both immediate and long term benefits.

Introduction

Childhood is an important time for growth and development and a healthy, well balanced diet is essential to make sure children receive all the nutrients they require for their growing needs. Furthermore, **adopting good eating habits early in life can influence health in later life**. Certain diseases such as cancer, diabetes, osteoporosis (fragile bone disease) and heart disease can take root during childhood.^{i, ii, iii, iv} In fact, many ailments that were once associated with older age, such as diabetes^v and high blood pressure,^{vi} are now becoming increasingly common in children. What's more, good eating habits last a lifetime. Eating healthily when young can influence what's eaten during adulthood.^{vii, viii, ix, x, xi}

For these reasons young people should be encouraged to adopt a healthy diet and lifestyle. Soya foods can form an important part of this diet - not only are they nutritious but there is evidence to suggest that eating moderate amounts when young provides both immediate and long-term benefits.

Obesity

Overweight and obesity are serious health problems in Europe. In England, results from the Health Survey for England show that around 30% of children aged 2 to 15 were either overweight or obese in 2007.^{xii} Obesity in childhood is linked to many health complications, both in childhood and later in life.^{xiii, xiv, xv, xvi, xvii}

Although a number of factors contribute to becoming obese, what is eaten has a major role. Vegetarian children appear to be leaner than non-vegetarian children and including more plant based foods, such as soya foods, into children's diets would seem a sensible approach to reduce obesity in the young.^{xviii}

Furthermore, research has shown that dietary protein is more satisfying than carbohydrate or fat.^{xix} Protein-rich foods appear to improve satiety – the feeling of fullness after eating a meal. In this way it can

help suppress appetite and so help control hunger. Soya foods are a great source of protein and at the same time very low in saturated fat. The quality of soya protein is comparable to that of meat and dairy products, meaning that soya protein can meet the growing needs of children.^{xx, xxi} Studies have also found that soya protein is just as effective as other sources of protein in promoting weight loss, and may have additional health benefits such as protection against heart disease.^{xxii}

Heart Disease

Cardiovascular Disease (CVD), also known as heart and circulatory disease, is the UK's biggest killer.^{xxiii} Various factors contribute to heart disease, but a number of these can be modified by diet, such as high blood cholesterol levels.

In children who have high cholesterol due to a genetic



defect, soya protein has been found to help lower blood cholesterol and may delay or prevent the need for medication.^{xxiv, xxv, xxvi, xxvii, xxviii} Furthermore, soya foods are a good source of 'healthy' fats which can also help to lower cholesterol.^{xxix} Including more soya foods into the diet, at the expense of typical Western protein foods (such as meat and dairy products), can help to reduce the 'bad' saturated fat and increase the 'good' polyunsaturated fats.^{xxi}

Soya beans are a source of the plant omega-3 fat, alpha-linolenic acid (ALA).^{xxi} Although ALA does not have the same properties as the long chain omega-3 fats found in fish, there is evidence to suggest that it does have heart health benefits.^{xxx, xxxi}

For this reason, adopting a heart healthy diet early in life is one step towards preventing heart disease in later years.

Breast Cancer

Breast cancer is now the most common cancer in the UK.^{xxxi} However in Asia breast cancer rates are low. It has been suggested that one of the reasons for this is due to diet, particularly the inclusion of soya foods.

A recent study found that women eating more soya foods had a 29% lower risk of breast cancer.^{xxxiii} However, there is increasing evidence suggesting that to get this benefit, soya must be eaten early in life (during childhood and/ or teenage years) and continued during adulthood.^{xxxiv, xxxv, xxxvi} Studies investigating this early intake have found that consuming soya, in the amounts found in 1 glass of soya milk a day, reduce the risk of breast cancer by 28 to 60%.^{xxxv, xxxvi, xxxvii, xxxviii}

Growth and Bone Health

As soya foods provide high quality protein and many are also a good source of calcium, soya can help and support normal growth and bone development.^{xxxix} Many soya milks are now enriched with calcium, and the calcium from soya foods and tofu is as well as absorbed as the calcium from cow's milk.^{xi, xii} As a result these foods can be helpful in maintaining bone health in adulthood.

Practicalities of including soya foods into children's diets

Soya foods can be introduced into the diet from weaning onwards. However, most soya alternatives to milk are not suitable for use as a main drink until two years of age (due to their lower fat and calorie content). Instead, specifically tailored, vitamin, mineral and plant-fat enriched options are now available that are suitable from one year of age.

Research shows that soya foods are generally well-accepted by children.^{xlii, xliii, xliv} A government-based program in the US found that children ate just as much soya-enhanced lunch as a lunch made with traditional ingredients.^{xlii}

Soya foods are generally well tolerated although in rare cases an allergic reaction to soya can occur. Most children are thought to outgrow their allergy to soya early on in life^{xlv} and one study found that 80% of infants outgrew their soya allergy by two years of age.^{xlv}

Conclusions

- It is important to establish healthy eating habits early as these influence health in later life.
- Soya foods can make a valuable nutritional contribution to children's diets – they are good sources of protein, low in saturated fat and provide essential fatty acids.
- Soya foods are generally well accepted by children and can be included in the diet from weaning onwards.
- Including soya foods as part of a healthy, balanced diet can have beneficial effects on obesity, heart and bone health. There is also evidence that including soya foods into the diets of young girls may reduce the risk of breast cancer later in life.
- Including soya foods can be considered as a healthy addition to children's diets.



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