

Nutrition

For optimal learning and wellbeing



Position Papers



Why is Nutrition so important?

You are what you eat – in a country like Australia where our food culture is prevalent, diverse and social, we tend to think of all of our food as being good and healthy or we fall in to the trap of not paying attention to what we eat. Not paying adequate attention to our nutritional needs may lead to serious short, medium and long-term health implications. Whilst we understand nutrition is important, there is a lot of conflicting information and evolving research into the effects of the foods we eat and what the ideal diet for optimal health is.

Let's take a look at some of the facts:

- 1. Presently, over 25% of Australians aged 4-18 years old are either overweight or obese.
- 2. Inadequate nutrition can lead to:
 - a. serious physical implications, significantly affecting healthy development and
 - b. serious mental health effects including impacting cognitive ability.
- 3. Australian children and adolescents obtain 40% of their daily energy intake from discretionary foods (the Australian Guide to Healthy Eating describes discretionary foods as all foods that are non-essential or a necessary part of dietary development (Johnson et al., 2017)). Discretionary foods are high in kilojoules, saturated fat, added sugars and/or added salt. These foods should only be eaten sometimes or in small amounts. Examples of discretionary foods include, but are not limited to
- Sweet biscuits, cakes and desserts
- Processed meats and sausages, meat pies
- Ice-cream, confectionary and chocolate
- Pastries, burgers, hot chips, fried foods
- Crisps and other high fat or salty snacks
- Cream and butter
- Sugar-sweetened cordials, soft drinks and sports drink

So we know that when it comes to diet, it is a modifiable risk factor. This means that we can control it. Diet can be targeted to improve the physical and emotional wellbeing of young people.

It turns out that improving nutrition and changing gut microorganisms actually decreases anxious and depressive symptoms, improves cognitive performance and contributes positively to brain development in early life (Ceppa, Mancini &Tuohy, 2018)

So let's take a look at what the experts are saying...

The regular intake of discretionary foods can result in the disruption of brain development and function (Ceppa, Mancini &Tuohy, 2018). We know that neural pathways connect the brain and the gut. There is now evidence to suggest that eating discretionary foods will in fact increase the risk of developing mental health disorders (depression/anxiety) and/or increase the severity (Chatteron et al., 2018).

A link between the way the brain works (correlation in hippocampus- responsible for learning and memory) and eating discretionary foods has been found. Memory is the key to learning (Willingham, 2012) Small dietary improvements may lead to improved concentration and student attendance (Cueto, 2001, Storey, Peace & Ashfield-Watt, 2011).

Sugar and poor nutritional choices can negatively impact child/adolescent behaviour. Minor changes such as eliminating soft drinks, have been shown to have positive effects on student behaviour (Price, 2012). Behaviour and learning capabilities have also improved when discretionary foods are exchanged for protein, healthy fats and complex carbohydrates (Florence, Asbridge, & Veugelers, 2008).

A diet high in saturated fats and refined sugars has a very potent negative impact on brain proteins (neurotophins) which help protect the brain against oxidative stress as well as promoting new brain cells. Both low intakes of healthy foods as well as higher intakes of discretionary foods can both have a similar negative impact on brain proteins (Jacka et al, 2017).

•

HEALTHY EATING PYRAMID



Enjoy a variety of food and be active every day!



Recommended average daily number of serves form each of the five food groups for boys

						Additional serves for more active, taller or older children and adolescents
	Vegetables & legumes/ beans	Fruit	Grain (cereal) foods, mostly wholegrain	Lean meat and poultry, fish, eggs, nuts and seeds, and legumes/ beans	Milk, yoghurt, cheese and/or alternatives (mostly reduced fat)	Approx. number of additional serves from the five food groups or discretionary choices
2-3	2 ½	1	4	1	1 ½	0-1
4-8	4 1/2	1 ½	4	1½	2	0-2 ½
9-11	5	2	5	2 ½	2 ½	0-3
12-13	5 ½	2	6	2 ½	3 ½	0-3
14-18	5 ½	2	7	2 ½	3 ½	0-5

Whilst eating healthy is often seen as less convenient, with adequate planning each week, dinners and snacks can be prepared quite quickly. Eating healthy also doesn't have to be expensive. Buying fresh fruit and vegetables that are in season or frozen fruit and vegetables can significantly reduce the cost of your groceries each week. Snacks, along with main meals should be chosen in accordance with the healthy eating guidelines, as these snacks will minimise spikes in blood sugar and will promote optimal physical, mental and emotional responses.



Encouraging healthy nutrition habits at home

Your son is more likely to make his own healthy choices as he get older, if he has grown up in a household with a variety of nutritious food available.

So:

- Create a balanced lunchbox by including complex carbohydrates, proteins and healthy fats from the five food groups.
- Speak to your son about the types of food he would like to have in his lunchbox and discuss and show him ways he can increase the nutritional value of his lunchbox.
- Provide a range of seasonal fruit and vegetables as this maximises nutritional content and promotes variety
- · Eat mainly wholegrain cereal foods and breads
- Drink plenty of water instead of sugary drinks like cordial, energy drinks, soft drink and flavoured milks
- Eat a healthy breakfast everyday
- Protein shakes, bars and supplements are not recommended to be used by children and adolescents unless directed by a health professional.
- Encourage everyone in the family to get involved in cooking and preparing foods- especially new foods and recipes
- Turn off electronic devices at mealtimes
- Save discretionary food choices for special occasions

More healthy eating tips, advice and recipes can be found online at www. eatforhealth.gov.au.



Encouraging healthy nutrition habits at school

School canteens have the potential to not only influence, but make positive changes towardsthe current food practices and eating behaviours of children and adolescents. The food preferences of children and adolescents are learned through repeated exposure to foods. Even if students are only buying discretionary foods from the canteen once a week, they continue to have visual exposure to these foods every day they are at school. Having nutritional food available in schools is also a preventative forward approach to reducing the health implications associated with regular intake of discretionary foods.

At Brighton Grammar we are committed to putting the nutritional education delivered in the classrooms into practice by ensuring healthy food and beverages are readily accessible at school. All our canteens at Brighton Grammar will be removing discretionary foods and providing food and beverages in accordance with the Australian Guide to Healthy Eating requirements. Not only will this support students with their physical growth and wellbeing, but it will also promote future positive food choice behaviours beyond childhood and adolescents.

References

Ceppa, F., Mancini, A., & Tuohy, K. (2018). Current evidence linking diet to gut microbiota and brain development and function. International Journal of Food, Science and Nutrition, 1-19.

Chatterton, M. L., et al. (2018). Economic evaluation of a dietary intervention for adults with major depression (the 'SMILES' trial). BMC Public Health 18(1), 599.

Cueto, S. (2001). Breakfast and dietary balance: The enKid study. Public Health Nutrition, 4, 1429–1431.

Florence, M., Asbridge, M., & Veugelers, P. (2008). Diet quality and academic performance. Journal of School Health, 78, 209–215.

Jacka, F. N., et al. (2017). A randomised controlled trial of dietary improvement for adults with major depression (the 'SMILES' trial). BMC Med 15(1), 23.

Johnson, B. J., et al. (2017). Contribution of discretionary foods and drinks to Australian children's intake of energy, saturated fat, added sugars and salt. Children 4(12), 104

Meyers, A., Sampson, A., Wietzman, M., Rogers, B., & Kayne, H. (1989). School breakfast program and school performance. American Journal of Diseases of Children, 143, 1234–1239.

Price, J. (2012). De-fizzing schools: The effect on student behavior of having vending machines in schools. Agricultural and Resource Economics Review, 41(1), 92–99.

Storey, H., Pearce, J., Ashfield-Watt, P., Wood, L., Baines, E., & Nelson, M. (2011). A randomized controlled trial of the effect of school food and dining room modifications on classroom behaviour in secondary school children. European Journal of Clinical Nutrition, 65, 32–38.

Willingham, D. Why Don't Students Like School (2012). Wiley & Sons, San Francisco CA (p47).

