

## **Dairy is the building block of life?**

Milk plays an important part in our everyday life - it is a calcium rich beverage which has Vitamin D, helps keep our bones strong and prevents Osteoporosis. School children across the globe should be familiar with this healthy goodness since it is one of the most important components which make up a school lunch. An experiment known as the "Oslo lunch" was introduced by Professor Shiotz during the 1920s, where children were given a small block of cheese, two slices of wholewheat bread, salad and a pint of milk. Although the meal was originally tailored for undernourished children, it was found to have positive impacts on school children's health.

Other than developmental benefits, milk also has a magical 'calming effect'. In a school setting, milk also plays an important role of classroom management. Children have a natural preference for sweet foods in order to fill their biological needs. As they are still growing, they will need a lot of energy, which is converted from glucose, a simple sugar. With the intake of sugary snacks, school children are likely to be hyperactive, which may be a headache to teachers. However, milk is a mild beverage that has the ability to calm the children down, so that they will less likely cause trouble. As well as that, the sugar content in milk is far lower than carbonated soft drinks, which is one of the main culprits of today's high rate of obesity in America and Britain. As a result, milk is almost a mandatory part of our diet in primary school. In Japanese primary schools, children are encouraged to recycle the milk cartons after consumption. They would first flatten the carton box, wash the box and then hang to dry. I think this habit is very admirable and helps educate students to become more environmentally friendly. From this, we can see the pros of having milk in schools.

With our hectic lifestyle nowadays, we are often forced to gulp down lots of tea and coffee, which are caffeinated beverages. Some people might have the habit of adding milk to their coffee or tea as it gives the drink a milder taste which will not overwhelm the tastebuds. My personal experience with caffeine is that having foamed milk in the coffee makes the taste creamier, less bitter and easier for consumption. Having black coffee on its own is a personal acquired taste, but for those who would like a less intense flavour, milk can do the job. When a person is fuelled on lots of caffeine, they may suffer from lifestyle illnesses such as insomnia, which is the inability to fall asleep at night. Milk, however, might be a solution for the insomniacs as it has Tryptophan, which is an amino acid that stimulates the sleeping neurotransmitters melatonin and serotonin.

The natural colour of milk is creamy white, which is often perceived as morally correct, as it reflects innocence, purity and goodness. The milky beverage initially comes from cows, but with the development of technology and the increase in the number of lactose-intolerant people, a lot of alternative milk options are available in the supermarket.

With the growing championship of "going vegan" from social media, milk producers and food scientists have come up with various alternative milk options for vegans and for those who advocate a 'animal cruelty free' diet. Apart from those people, these options are targeted towards people that cannot drink normal cow's milk due to a medical condition known as 'Lactose Intolerance'. Individuals that have Lactose Intolerance have a lower ability to digest lactose (milk sugar), and if consumed at large amounts, may lead to stomach pain, bloating, diarrhoea, gas and nausea. The alternatives include oat milk, soya milk, hemp milk, rice milk, almond milk, coconut milk and goat's milk. Current research have also shown that we do not actually need milk to get strong and healthy bones - in fact, scientific research has shown that milk increases our risk of having bone fractures! In addition, the growing importance of standardisation in this fast-paced technology driven society has caused the milk industry to use homogenisation as the standard. That means that the chemistry of milk has been altered and processed, releasing detrimental acidifying effects after consumption. There is also a controversy about the consumption of milk, due to ethical reasons and how the milk producers treat the cows with cruelty. Although cows do produce milk naturally, the amount of milk is not enough to meet the high demands from us human beings. Just

like female mammals, cows have to be pregnant in order to produce milk for their baby calves. To speed up the process, it is said that milk producers artificially inseminate the female cows using “rape rack”, which involves shoving a restraining apparatus into the cow. Also, the baby calves would have to be separated from their mother, and they would not be allowed to have their own mother’s milk as that will be reserved for humans’ consumption. The female cows would have to face a life-time of pain, being milked by mechanical machines just to satisfy the milk demand. Maybe that explains why the ‘vegan’ movement has become popular now - mostly to stop animal cruelty and to embrace the plant based diet. But it is still the earlier stages of this movement, and it is likely to take far more decades to get more people to change their eating diets.

Besides being a part of our diets, milk is also used in sweets. In places such as China and Japan, milk sweets act as a significant part of childhood, and people would remember the famous mascot Peko-chan for ‘Milky’, and the iconic red and blue illustration of a rabbit on ‘Da Bai Tu’ (White Rabbit) that originated from Shanghai. Although one of the key points ‘Milky’ tries to promote is ‘healthiness’, it is not actually made with pure milk. It is made with condensed milk, where water in cow’s milk has been removed. Sugar has also been added to form ‘sweetened condensed milk’, which is one of the reasons why the milk sweet is so creamy and rich in milk flavour. ‘Da Bai Tu’ in comparison has a much lighter taste, probably due to the use of whole milk powder rather than milk itself. However, both milk sweets are popular among children in Asian countries. From where I am from, milk also comes in different flavours, which include strawberry milk, papaya milk and melon milk. It was rumoured that melon milk helps increase the female breast cup size, so flat-chested girls would drink it to wish for an ‘upgrade’.

Examples of by-products of milk include butter, condensed milk, yoghurt and cheese. These foods are highly consumed by humans because it is said that dairy products have a high protein content, and for a fitness nut, protein is the most important nutrient for bodybuilding. Sports health goods producers are crazy about a protein called whey, which is found in milk. Protein is said to be the majorities’ holy grail because it helps with lose weight, repairing body cells and contributes to muscle gain.

### **My Personal Insight on Milk**

In the past, milk was one of my favourite drinks, especially the type with 3.6% milk fat from Hokkaido, Japan. It was the rich and creamy texture of milk that got me hooked to drinking milk. But after reaching adolescence, I found that milk was one of the sources of getting lots of acne. Milk contains growth hormones and inflammatory substances that clog the skin’s pores, which make the skin oily. After cutting and reducing the consumption of dairy products such as milk, butter and yoghurt in my diet, I found my skin in better condition. That’s one of the reasons why I’ve stopped drinking it.

Moreover, I have decided to cut out milk completely from my diet because I felt sorry for the cows that have to undergo a lifetime of pain, being humans’ milk machines and butchered to be sold at supermarkets as a ‘protein-rich’ meal. I also think that we should also take into account the importance of ethics, because that makes us better human beings. Other than that, trying out new things such as nutty milk is enticing for me, as these beverages are not available back in Hong Kong, and if even so, they will be more expensive. Diet trends are also ever-changing - the plant based diet is the one which I’m interested to commit to. It is animal-cruelty free and is more natural, so hopefully this can help change the fate of cows, chickens and pigs that are trapped in cages.