



The Winter months are widely known as ‘cold and flu season’. Eating a healthy balanced diet can help to combat the risk of catching a cold or flu. There are many small changes that can be made each day to improve and maintain good health. This blog is focused on winter wellness, packed with tips and a recipe for a delicious nourishing soup to keep you healthy and happy during the colder months!

Healthy Eating

Consuming plenty of fruit and vegetables every day is an excellent way to maintain good health. There are a significant number of physical health benefits that result from the daily consumption of fruit and vegetables, with emerging evidence on the beneficial effects on mental health⁽¹⁾. The consumption of fruit and vegetables has been associated with decreased all-cause mortality⁽²⁾, reduced risk of coronary heart disease⁽³⁾ and the reduced risk of some cancers⁽⁴⁾. In terms of mental health, a high consumption of fruit and vegetables has been associated with a lower incidence of depression⁽⁵⁾, anxiety⁽⁶⁾, greater feelings of happiness and greater quality of life⁽⁷⁾.

The recommended 5-7 portions of fruit and vegetables daily is based off the benefits and protective effects this provides. The Irish dietary guidelines were last updated in December 2016 by the Department of Health published as ‘Healthy Food for Life’⁽⁹⁾. It included an updated food pyramid (Figure 1)⁽¹⁰⁾. The food pyramid is a useful guide to help inform your food choices throughout the day and contribute to a healthy and balanced diet.

Did You Know?

Technically strawberries aren’t a berry! Berries, by definition, contain their seeds on the inside of the fruit, whereas strawberries may have up to 200 seeds on the outside of their flesh!⁽⁸⁾

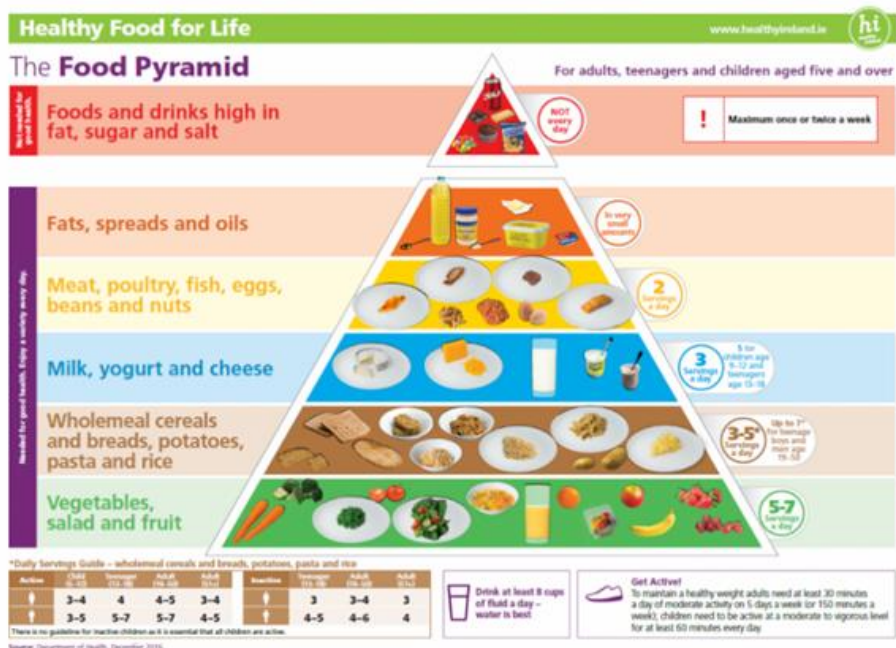


Figure 1 - Updated Food Pyramid to guide daily food choice⁽⁹⁾

The relationship between nutrition and the immune system is intricate and vast. The immune system is the body's defence mechanism against disease causing pathogens⁽¹¹⁾. The human immune system is made up of two parts both working in sync with one another on different tasks. These are known as the innate (general) immune system and the adaptive (specialized) immune system⁽¹²⁾.

The innate immune system is fast and effective. It includes the skin, which acts as a physical barrier to the entry of pathogens to body. Mucus membranes line the openings in the body and trap pathogens in mucous. Movements created by hair or secretions such as tears and sweat also prevent the entry of pathogens into the body⁽¹²⁾.

The second part of the immune system is slower to respond to pathogens but is much more accurate. It's called the adaptive immune system. It starts to take action against pathogens once they're present in the body. It can identify and remember pathogens it has previously been in contact with allowing it to respond faster in the future. The adaptive immune system is made up different immune cells such as T lymphocytes, B lymphocytes and antibodies. T lymphocytes recognise and attach to pathogens, subsequently sending signals to activate the adaptive immune system. B lymphocytes are activated by T lymphocytes which release

antibodies specific to the pathogen into the blood. Antibodies attach to pathogens and destroy/kill them and activate other immune cells to help fight the infection^(11, 12).

Therefore, the correct functioning of the immune system is essential for health. There are many ways nutrition can affect the functioning of the immune system. Excess weight, poor diet, lack of sleep and chronic mental stress all put extra strain on the body and inhibit the immune system from functioning at an optimal level.

Did You Know?

A fever means your immune system is working! A fever is a sign of the body fighting infection. A rise in body temperature is a way the immune system tries to kill the pathogen causing the infection⁽¹³⁾.

Below are some healthy eating tips that can aid the functioning of your immune system:

- ❖ Blueberries provide the body with antioxidants due to the presence of the flavonoid anthocyanin (the pigment providing the blue colour). Flavonoids are reported to decrease the incidence of upper respiratory tract infections by up to 33% in healthy individuals as reported in a 2016 study⁽¹⁴⁾.
- ❖ Spinach contains vitamin C, E and flavonoids. Vitamin C is a powerful antioxidant and has been reported in some studies to reduce the severity and duration of symptoms during the common cold⁽¹⁵⁾. Vitamin E is another powerful antioxidant and may also help to reduce mast cell activation.
- ❖ Oranges, kiwis and red bell peppers are excellent sources of vitamin C.
- ❖ Sunflower seeds are a rich source of vitamin E.

Hydration

Approximately 60% of the human body is made up of water. Therefore, it is essential for life⁽¹⁶⁾. Water is used in almost all reactions that occur in the body including thermoregulation, as a solvent for many biochemical reactions, and aiding in the transportation of nutrients and waste in the body⁽¹⁷⁾. Water also comprises a significant proportion of blood volume. Dehydration can significantly affect body functioning. A 2013 study⁽¹⁸⁾ reported as little as 2-4% dehydration can impair mood, energy levels and lead to reduced memory and brain performance.

Staying hydrated offers many benefits to your overall health. It's recommended that adult males consume 2 litres and adult females consume 1.6 litres of water a day for optimum hydration⁽¹⁹⁾. Increasing your daily water intake has been reported to have many beneficial health effects such as lowering blood pressure, resulting in a rise in body temperature, protects kidney function and dilutes waste material from the blood⁽²⁰⁾.

Dehydration is just as likely to occur during the cold winter months. With every breath, every time we sweat, urinate or have a bowel movement, water is lost from the body. Dehydration can often occur unknowingly during colder weather as it may be more difficult to notice the body sweating due the extra layers of clothing and the cool dry air. Humans can only survive a couple of days without water. Dehydration affects the body in many ways such as contributing to heatstroke, increases the risk of kidney stones, urinary tract infections, metabolic disease, cardiovascular disease and chronic kidney disease⁽²¹⁾.

💧 Did You Know? 💧

Water is the main component of blood at about 55%!⁽²²⁾

Tips to stay hydrated and increase your daily water intake include:

- ❖ Sipping away at water throughout the day even when you don't feel thirsty.
- ❖ Infuse your water with fruit, vegetables and/or herbs such as lemon, lime, strawberry, mint or cucumber to make it more appealing and tastier.
- ❖ Drinking hot drinks and enjoying soup are great ways to increase fluid intake.
- ❖ Try to drink water at every meal.
- ❖ Avoid sugary beverages and too much caffeine (caffeine can contribute to dehydration as it's a diuretic and promotes urination).



Vitamin D

Vitamin D supplementation is essential in Ireland from October through to March. Low levels of sunshine and sun exposure (due to increased layers and staying inside to keep warm) means supplementation is necessary to meet daily vitamin D requirements. Human skin has the ability to convert ultraviolet rays (UV) from the sun into vitamin D which can be used by the body⁽²⁴⁾.

☀ Did You Know? ☀

Vitamin D is the only vitamin the body can make itself!⁽²³⁾

To meet daily vitamin D requirements, it's recommended that adults between the ages of 18-64 in Ireland take a 10µg (400IU) and older adults (those above the age of 65 years) are recommended to take a 15µg (600IU) supplement from October through to March. For adults (18+ years) with darker skinned ethnicity, daily supplementation of 10µg (400IU) is recommended all year round. The Food Safety Authority in Ireland reported between 10-44% of adults in Ireland are deficient in Vitamin D highlighting the importance of supplementation in the population⁽²⁵⁾.

Vitamin D is essential for strong, healthy bones and teeth, and for muscle functioning. Calcium and Phosphorous (both essential for bone health) require vitamin D to be absorbed by the body. Vitamin D is associated with improved muscle functioning and physical performance and is related to a decreased risk of falls. Vitamin D also helps to regulate the immune system and may reduce the risk of osteoporosis, cardiovascular disease and some cancers⁽²⁶⁾.



Probiotics

The digestive tract is the home to millions of microorganisms. This abundant community of microorganisms is known as the gut microflora/microbiota and has a symbiotic relationship with the immune system (both parties benefit from the relationship).

The digestive tract plays an important role in our immunity as it determines the nutrients that are absorbed by the body. If contaminated food is digested, it is the role of the gastrointestinal tract to prevent the absorption of the pathogen into the body, subsequently protecting the body from infection. The walls of the intestine have a role to play in the body's immunity with the ability to carry out several defence mechanisms against pathogens. The defence mechanisms include inhibiting the presence of pathogenic bacteria, the production of antimicrobial substances, the ability to trap pathogens, prevent pathogen access to deeper layers of the intestinal walls, the secretion of mucus, the production of defensins, antibiotic substances and many more⁽²⁷⁾.

Did You Know?

A healthy body contains around 3.5 pounds of probiotic bacteria and microorganisms⁽²⁸⁾.

Probiotics can be consumed as a fermented food such as sauerkraut, kefir, kombucha, and cultured milk or yoghurt, or as a supplement. Probiotics are often recommended after a course of antibiotics to help replace the 'good bacteria' that may have been lost as a result of taking antibiotics. They also help to maintain a balance between the 'good' and 'bad' bacteria in your body - an imbalance of bacteria in the gut has been associated with negative health effects⁽²⁹⁾.

Probiotics can be taken continuously to help with the digestion of food, fight off harmful bacteria in the body and to help with the regulation of the immune system. This can help reduce the risk and severity of colds and flus during the winter months and keep your bowel and digestive systems feeling good. Probiotics have also been reported to improve blood cholesterol levels, reduce blood pressure and hypertension, improve blood glucose tolerance, stool consistency and the concentration of vaginal lactobacilli⁽²⁹⁾.

Another study discovered a relationship between gut health and mental health⁽³⁰⁾. This study investigated the effect of probiotics on the body's central nervous system and reported improvements in some psychiatric disorders including anxiety, depression, obsessive compulsive disorder and improved memory as a result of regular and consistent probiotic supplementation.

Winter Warmer Recipe -

~ Butternut Squash Soup with Chilli and Crème Fraiche ~

Ingredients

- 1 butternut squash, peeled and deseeded
- 2 tbsp olive oil
- 1 tbsp butter
- 2 onions, diced
- 1 garlic clove, thinly sliced
- 2 mild red chillies, deseeded and finely chopped
- 850ml hot vegetable stock
- 4 tbsp crème fraîche, plus more to serve



Method

- Heat the oven to 200°C.
- Cut the squash into large cubes and put in a large roasting tin with 1 tbsp of olive oil.
- Roast for 30 mins, turning once during cooking until soft.
- While the butternut squash cooks, melt the butter, add the remaining olive oil in a large saucepan and add the onions, garlic clove and three-quarters of the chillies.
- Cover and cook on a low heat for 15-20 mins until the onions are completely soft.
- Tip the butternut squash into the pan, add the stock and crème fraîche, then blend until smooth.
- Return to the pan, gently reheat and season to taste. Serve the soup in bowls with swirls of crème fraîche and a scatter with the remaining chopped chilli.

I hope this winter wellness post has provided some useful tips and inspiration to help you stay happy and healthy during these cold winter months. Remember, there's no better time to start implementing some healthy habits in your diet than today!

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