

# IMMUNITY SUPPORT & RECIPE PACK

The main purpose of your immune system is to protect your body from viruses and bacteria. Learn how to boost and strengthen yours through leading a healthy lifestyle and eating immune boosting foods.

www.melissacampbell.co.uk



# The Wellness Club





# Immunity Support & Recipe Pack

I hope you enjoy reading about the brilliance of what is your immune system and trying these immune boosting recipes.

If you are ready to upgrade your membership you can move up to the Plus version of <a href="The-Wellness Club">The Wellness Club</a>. Each month you will receive a themed workbook on a self-care area (e.g. stress, sleep, gut health), along with a movement and meditation practice and a delicious plant-base recipe pack as well as continued access to the wellness library . <a href="https://www.melissacampbell.co.uk">www.melissacampbell.co.uk</a>

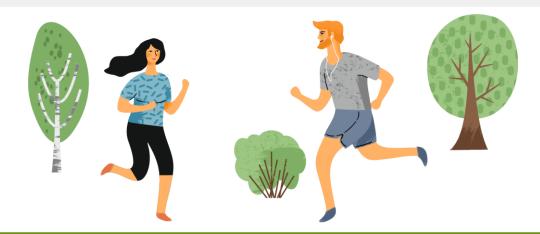
### **Immunity Support Pack**

In the midst of a global pandemic right now, having a strong and healthy immune system is more important than ever! The good news is there are plenty of steps you can take to make yourself healthier. Leading a healthy lifestyle through eating well, exercising and having a positive outlook are among the top things that will help strengthen your immunity and I am here to help you do just that with this pack.

#### Are you Ready to feel Stronger:

#### The Immunity Support Pack Contains:

- → What you NEED to know about the role of your immune system
- → How to SUPPORT it through lifestyle practices
- ightarrow WHAT the best food sources and supplements are to strengthen your immune health
- $\rightarrow$  Amazing RECIPES so that you can start boosting your immune health today!



# What is the Immune System & What Depletes it?

O.K. Let's start of with a basic understanding before we move onto more practical steps. The immune system is a complex organ system in the body and compromises of white blood cells, skin, mucus and bacteria. Its main role is to prevent disease by seeking, recruiting, attacking and destroying foreign invaders, such as bacteria and viruses that enter the body.

Researchers are still exploring the effects of diet, exercise, age, and other factors on the immune response, but it is also believed that your stress levels and general mental state can have a profound effect on the strength of your immune system .

**How does it happen?** When you are stressed your body releases a hormone called cortisol and during times of stress, the level of cortisol rises in the body which triggers the fight or flight system of the body.

When this happens, the body responds by limiting certain body functions which include the immune system.

Prolonged stress and elevated cortisol level will therefore keep the immune system in a compromised state, which increases the likelihood of getting sick. However, the opposite is also true!

Leading a Healthy Lifestyle and Having a Positive Outlook Strengthens Immunity.

The more time we spend engaging in healthy, relaxing and fun activities, the more we strengthen our immune system.

Let's look at simple everyday ways that we can do just that.

# **How to Support Your Immune System**

The immune system is precisely that - a system and not a single entity. Every system in your body, including the immune system, functions better when in balance and in harmony with one another.

In general, a healthy lifestyle and a positive mindset are the single best steps you can take toward naturally keeping your immune system strong and healthy. Things such as:

- Eating a whole food diet with plenty of fruit and vegetables
- · Exercising regularly
- · Staying hydrated
- Maintaining a healthy weight
- Getting enough sleep
- Reducing stress
- Avoiding alcohol or drinking in moderation
- Not smoking
- Engaging in positive social interaction
- Laughing (it has a powerful impact on our immunity)
- Practicing gratitude
- A sense of purpose and working towards goals





## Diet & Your Immune System

#### IT ALL STARTS WITH FOOD.

Food has been described as nature's medicine and generally speaking, the foods you eat are either supporting your health or depleting it and, this is true for the function of your immune system.

There is some evidence that various micronutrient deficiencies (vitamins and minerals) can alter our immune responses making it weaker and less effective at fighting off or preventing certain illnesses .

Although we can supplement it is best to receive our vitamins and minerals through food so, if you suspect you may have micronutrient deficiencies, make sure you eat a varied diet with ample amounts of fruit and vegetables and support yourself with a good quality multivitamin.

Let's have a look at some of the top immune boosting foods.



## Vitamins, Minerals & Antioxidants for Your Immune System

#### Vitamin D:

Along with bone health, this crucial vitamin is an important vitamin for immune health. In fact, Vitamin D works like a hormone in your system, helping your body's immune, digestive, circulatory, and nervous systems do their jobs and one big symptom of being low in vitamin D is feeling rundown and tired, along with catching every cold/bug that comes around.

#### Supplementation:

The body produces vitamin D from cholesterol, provided there is an adequate amount of UV light from sun exposure. However, in the UK between October - March there isn't the sun doesn't contain enough UVB radiation for our skin to be able to make vitamin D and therefore NHS England recommends that during these months, we need to rely on getting our vitamin D from food sources (such as fatty fish, eggs and mushrooms) and supplements.

#### Vitamins C and E:

Other important immune boosting vitamins are vitamins C and E - antioxidants that help to destroy free radicals and support the body's natural immune response.

#### Vitamin C Sources:

- red bell peppers
- oranges
- strawberries
- broccoli
- lemons
- tomato's
- kiwi's
- blueberries

#### Vitamin E sources:

- almonds
- spinach
- avocado
- olives
- asparagus
- red sweet peppers
- sunflower seeds



#### Vitamin C Supplementation:

Vitamin C is often supplemented to reduce the symptoms of the common cold. Supplementing with vitamin C can reduce the duration of a cold by 8-14% when it is taken as a daily preventative measure, or at the beginning of a cold.

The Recommended Daily Intake (RDI) of vitamin C is 100-200mg. This is easily attained through the diet, so supplementation of such low doses is usually unnecessary. Higher doses of vitamin C, up to 2,000mg, are used to support the immune system (for athletes) or reduce the duration of the common cold.

#### *Vitamin E Supplementation:*

Maintaining adequate levels of vitamin E in the body can be achieved through very low daily doses of 15mg (22.4 IU) or less. This dose of vitamin E can be acquired through the diet, making supplementation unnecessary in many cases.

#### **Beta-Carotene:**

Beta-carotene is a powerful antioxidant that can reduce inflammation and boost immune function by increasing disease-fighting cells in the body.

#### **Sources:**

- Sweet Potatoes
- Carrots
- Green leafy vegetables

#### Zinc:

Zinc is a mineral that can help boost white blood cells, which defend against invaders.

#### **Sources:**

- · pumpkin seeds
- sesame seeds
- beans
- lentils

#### Supplementation:

Zinc has two standard dosages. The low dosage is 5-10mg, while the high dosage is 25-45mg. The low dose works well as a daily preventative, while the high dosage might be taken by anyone at risk for a zinc deficiency and who is under their medical healthcare's supervision.

#### Allicin:

Allicin is the principal bioactive compound present in the extract of garlic. When garlic is chopped or crushed, the alliinase enzyme is activated, and allicin is produced. When cooking with garlic, it is recommended to crush or chop it and leave for 10 mins for the enzyme to be activated.

The benefits of garlic to health has been proclaimed for centuries although medical science has only more recently proposed it as a promising candidate for maintaining a healthy immune system.

Most studies on garlic use a dosage range of 600-1,200mg a day, usually divided into multiple doses. The minimum effective dose for raw garlic is a single segment of a garlic bulb (called a clove), eaten with meals two or three times a day.

# Recipes

Here are some yummy plant-based recipes to support your immune system. Enjoy.





# ANTIOXIDANT BLUEBERRY PROTEIN SMOOTHIE



Cook: 0 mins

Blueberries contain flavonoids—a type of antioxidant that can help reduce damage to cells and boost your immune system.

#### WHAT YOU NEED

- 1/2 cup (125ml) coconut water
- 1/2 cup (125ml) almond milk, unsweetened
- 1 scoop vanilla protein powder or add a couple tablespoons of hemp seeds or Greek yogurt
- 1/2 frozen banana
- 1/2 cup (50g) frozen blueberries
- 1 tsp ground cinnamon
- 1 tsp chia seeds

#### WHAT YOU NEED TO DO

Blend all the ingredients in a high-speed blender until smooth and serve.





# SUPERFOOD BREAKFAST WITH FRIED EGG





Serves: 2 Prep: 5 mins Cook: 15 mins



Broccoli:

Broccoli is high in many vitamins and minerals, including folate, potassium, manganese, iron, and vitamins C and K1.

- 2 cups (300g) broccoli
- 1 garlic clove, minced
- 2 tbsp. (20g) pumpkin seeds
- lemon juice
- 2 tbsp. coconut oil
- 1/4 onion, chopped
- 1 tbsp. (20g) dried cranberry
- 4 eggs

#### Spices:

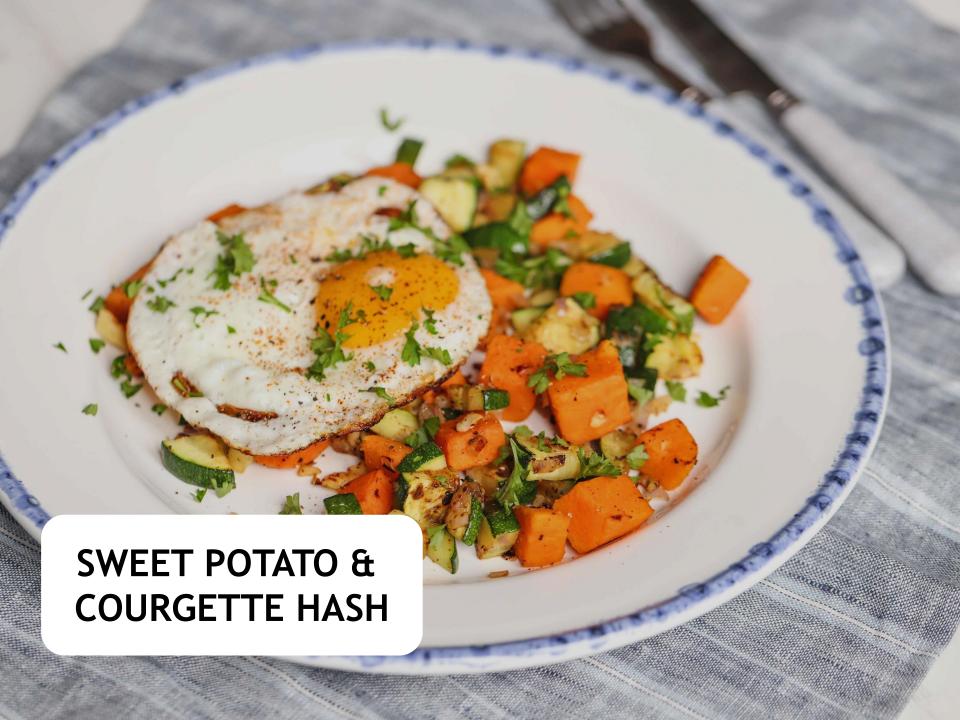
- ½ tsp. ground turmeric
- ½ tsp. chili flakes
- ½ tsp. paprika
- ½ tsp. oregano

Divide the broccoli into smaller parts and chop into tiny pieces or use a food processor to make broccoli rice.

Heat 1 tbsp. of oil in a pan on medium-high heat, add the minced garlic, chopped onion, pumpkin seeds and fry, stirring for about 5 minutes, until browned.

Next, add the cranberries, broccoli rice and all the spices, season with salt & pepper, mix and fry for another 5-7 minutes. If you need, add a little water to avoid burring. At the end of cooking drizzle with lemon juice.

In a separate frying pan heat the remaining 1 tbsp. of oil, and fry the eggs. Once ready serve on top of the broccoli rice, season with salt & pepper.



# SWEET POTATO & COURGETTE HASH





Serves: 4 Prep: 5 mins Cook: 15 mins



Sweet Potato:
Sweet potatoes
are an excellent
source of betacarotene, which
can be converted
to vitamin A and
help support your
immune system
and gut health.

- 16 oz. (450g) sweet potato, peeled, cut into cubes
- 2 glove garlic, chopped
- 1 ½ tbsp. coconut oil
- 2 medium courgette, diced
- 1 onion, diced
- 8 eggs
- handful parsley, chopped
- cayenne pepper, to taste

Cook the sweet potato for 3-4 mins in a pot of boiling water, then drain.

Heat the ½ tbsp. of the oil in a pan, over medium heat. Add the sweet potato, courgette, onion and garlic, sauté for about 5 mins, until cooked and browned. Season to taste with salt & pepper, and set aside.

Heat the remaining oil in the pan and fry the eggs to your liking.

Divide the vegetables between 4 plates, top with fried eggs and sprinkle with parsley. Season with cayenne pepper, salt & pepper, to taste and serve.



# **VEGETABLE CURRY SOUP**





Serves: 3 Prep: 15 mins Cook: 20 mins



#### Carrots:

Carrots are very high in beta carotene. The absorption is better (up to 6.5fold) if the carrots are cooked.

- 2 garlic cloves, minced
- 1 carrot, peeled, grated
- 1 red bell pepper, chopped
- 1 tbsp. coconut oil
- 1 medium onion, diced
- 1 ½ tbsp. ginger, minced
- 1 large courgette, chopped
- 1 tbsp. curry powder (or more to taste)
- 2 cups (500ml) vegetable stock
- 1 tomato, chopped
- 1/3 cup (80ml) plantbased cream/cashew cream (or normal)

In a large pot, heat oil and sauté the onion. Add the minced ginger and garlic then continue for 2-3 more minutes.

Next, add the peeled and grated carrot and sauté for about 2 minutes, stirring occasionally. Add the chopped peppers and courgette. Cook the vegetables for about 5 minutes, season with curry powder and mix well.

Next, pour in the stock and bring to a boil. Cook covered for about 10 minutes until the vegetables are soft. In the meantime, add the chopped tomatoes. Season with salt.

Once vegetables are cooked, take off from heat and blend using a hand blender. Add in the cream, season for taste, mix well and serve.



# ROASTED ROOT VEG SALAD WITH FETA





Serves: 4 Prep: 10 mins Cook: 30 mins



Pumpkin seeds:
Pumpkin seeds
are full of
antioxidants that
may help protect
against disease
and reduce
inflammation.

- 2 medium carrots, peeled
- ¼ cup (30g) pumpkin seeds
- 2 medium parsnips, peeled
- 1 lb. (450g) Butternut squash/pumpkin, peeled
- 2 cloves garlic
- 2 tbsp. olive oil
- 4 oz. (120g) rocket
- 2 oz. (50g) feta
- Salt & pepper to taste

Pre-heat the oven to 400F (200C).

Wash and peel the carrots and parsnips. Cut them into small strips. Peel and cube the butternut squash or pumpkin. Leave the skin on the garlic but bash a little and roast whole.

Place all the vegetables into a roasting tray, and grease evenly with 1 tbsp. of olive oil. Season with salt and pepper, and roast in the oven for 20-30 mins (depending on the thickness of the vegetables).

Once cooked add the roasted vegetables and rocket to a large bowl and drizzle with the remaining 1 tbsp. of olive oil. Once the garlic is not too hot to touch, peel off the skin, diced and add to the salad bowl, mix.

Sprinkle with crumbled feta cheese and pumpkin seeds, and season with salt and pepper to serve.



# KIWI CHIA PROTEIN PUDDING



Serves: 2 Prep: 10 mins Chill: 1 hr



Kiwi's are rich in vitamin C, carotenoids, polyphenols, and dietary fiber, and these are all potentially beneficial to the immune system.

#### WHAT YOU NEED

- 1/4 cup (45g) chia seeds
- 1 cup (250ml) coconut milk
- 1 scoop (25g) vanilla protein powder
- 3 kiwis, peeled + 1 kiwi, peeled and sliced
- ¼ cup(25g) blueberries
- ¼ cup (30g) blackberries

#### WHAT YOU NEED TO DO

Combine chia seeds, milk, and protein powder in a jar or glass bowl. Chill in the fridge for at least one hour or for best results - overnight.

Once out of the fridge give it a good stir, making sure you have a thick gel-like consistency. Taste and sweeten, if needed.

Place three peeled kiwis in a blender or food processor and blitz until pureed.

Divide the chia seeds and kiwi puree evenly between 2 glasses. First a layer of chia seeds, then kiwi slices, and top with another layer of chia seeds.

Top each pudding with fresh berries and sliced kiwi.



# REFERENCES & FURTHER READING:



http://www.biology.arizona.edu/immunology/tutorials/immunology/page3.html

https://examine.com/topics/immunity/

https://www.health.harvard.edu/staying-healthy/how-to-boost-your-immune-system

https://www.health.harvard.edu/staying-healthy/micronutrients-have-major-impact-on-health

Grant WB, Lahore H, McDonnell SL, et al. Vitamin D supplementation could prevent and treat influenza, coronavirus, and pneumonia Infections. Preprints. 2020;2020030235; Chung C, Silwal P, Kim I, Modlin RL, Jo EK. Vitamin D-cathelicidin axis: at the crossroads between protective immunity and pathological inflammation during infection. Immune Netw. 2020;20:e12-38.

https://examine.com/supplements/vitamin-d/

https://examine.com/supplements/vitamin-c/

https://examine.com/supplements/vitamin-e/

https://examine.com/supplements/zinc/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103721/

https://examine.com/supplements/garlic/