Week 1:

Eat Your Veggies!

Aim: Increase nutrient and fiber content, increase satiety, digestion and detoxification.

The Gist: Eat a lot of vegetables with every meal this week!

What to expect? Better bowel movements and gut health, improved energy, and clearer skin!





The average hunter-gatherer ate a huge diversity of plants and our consumption today pales in comparison. The Alyawarra tribe in Africa ate 92 different species of plants. Compare that to the fact that today 80% of the world's population live primarily on four main plants, which are wheat, rice, corn, and potatoes! Another big difference between ancestral and current diets is how much fermentable fiber people consume. Hunter-gatherers ate an average of a 100g of fiber per day, today the average daily intake is 10-15g! Hence most of us need a substantial injection of plants into our diets!

Adding more vegetables to your diet may seem like boring old advice, but it's one of the easiest and most effective changes most of us need to make. We all know vegetables are good for us, which is why our mothers always told us to eat them as kids! Fibrous vegetables provide us with an assortment of nutrients, and the fiber content helps **fill us up**, **feed our gut bacteria** and **improve digestion** and **detoxification**. Our plates should consist of primarily vegetables, with a moderate serving of meat and healthy fats. Advice like 'eat the rainbow' is important because vegetable variety is best to get an assortment of nutrients, antioxidants, and fibre to encourage a diverse ecology of bacteria in our guts.

Three reasons why more vegetables are important

1. Phytonutrients

Animal products (particularly organ meats) are immensely more nutrient dense than fruits and vegetables. For example to get the recommended daily intake for Vitamin A, we could eat just 3 ounces of liver, or 50 cups of kale, or 40 pounds of raw carrots. Despite a lower nutrient density than animal products, plants offer specific, plant based nutrients called phytonutrients.

Phytonutrients are not essential in the sense that we can't live without them, but they are have been shown in numerous studies to reduce disease risk, mortality, oxidative damage and inflammation, and assist our bodies function better. Plants produce phytonutrients to protect them from predators, toxins, pollution etc, and eating plants helps protect us too.

Phytonutrients are found in fruits and vegetables and are compounds like carotenoids, resveratrol, lycopene and more, which can act like antioxidants provide health promoting qualities like improving vision, reducing oxidative stress, preventing cell damage, decreasing inflammation, reducing blood pressure and more. Foods highest in phytonutrients are tomatoes, kale, flaxseeds, beets, broccoli, red bell peppers, apples, blackberries, blueberries, carrots and herbs.

2. Fiber

Vegetables are relatively high in water and **fiber content**, and are low in calories, a combination which makes them highly satiating. Vegetables fill you up, but they are not calorie dense, and so they don't negatively influence weight gain, but rather assist weight loss. There are 3 main classes of fiber: soluble, non-starch polysaccharides and resistant starch, and ideally we should eat a selection of each.

Why is Fibre so important?

- Fiber normalises digestion and provides bulk to the stool for optimal colon health
- It selectively stimulates favourable bacterial species, in particular Lactobacillus & Bifidobacterium.
- · Fiber increases colon acidity, making it less hospitable to pathogens and more hospitable to beneficial bacteria
- Fiber improves gut barrier function
- Fiber has been shown to stimulate and regulate the immune system,
- Fiber improves blood sugar management.
- Fiber is crucial for our detoxification process and binds to waste products in the colon to escort toxins out via stool. A lack of fiber results in bile products not being excreted, allowing toxins to recirculate.

3. Prebiotics or Microbiota-accessible carbohydrates (MACs)

Fiber passes through our digestive tract relatively intact, and is digested not by us, but rather by our microbiome or gut bacteria. One of the most important reasons to more eat vegetables is the microbiota-accessible carbohydrates it contains, which are acted upon by our gut bacteria. As we eat prebiotic fiber, our gut bacteria produce beneficial vitamins, substrates and short chain fatty acids which fuel the gut lining, and promote cell differentiation and proliferation, regulate sodium in water absorption, and enhances the absorption of calcium and other minerals.

Many people assume that taking probiotics increases healthy gut bacteria, but research has shown while they are undeniably beneficial, *probiotics regulate the bacteria that is already in the gut*, rather than increasing bacterial numbers. Conversely *prebiotic fiber from plant sources increases bacterial numbers*.

Quality Matters

Organic is best

Ok so hopefully you are sold on the eat more veggies argument, the next step is to appreciate that quality counts a lot! The soil plants are grown in, significantly impacts their nutrient quality, and for that reason organic or biodynamic, local produce is always best where possible. Healthy soil should be abundant in vitamins, minerals and bacteria, all of which will help nourish the food we grow. Unfortunately, mass production, single plant crops (lack of plant diversity), the addition of genetically modified organisms and the use of harsh pesticides and herbicides to increase the crop yield, have negatively altered soil quality, depleting soil of key nutrients. The end result is that our food chain lacks nutrient density.

Support Local

Where possible it's helpful to buy local produce. As soon as you take a plant out of the ground, it starts losing its nutrition. Supermarket grown produce has often travelled hundreds or thousands of miles to reach your plate! Local markets and farm deliveries can make buying local produce more accessible, so that we can help nourish ourselves better and support local, and sustainable farming practices. If you can't afford to buy organic, check out the environmental working groups list of the 'Clean 15' and 'Dirty Dozen' food lists for the least and most sprayed produce lists, so you can make healthier choices.

The Clean Fifteen		The Dirty Dozen		
 Sweet corn Avocados Pineapples Cabbage Onions Sweet peas frozen Papayas Asparagus Mangos Eggplant Honeydew melon Kiwi Cantaloupe Cauliflower Grapefruit 	These foods are the safest non-organic produce because they are the least sprayed	1. Strawberries 2. Spinach 3. Nectarines 4. Apples 5. Peaches 6. Pears 7. Cherries 8. Grapes 9. Celery 10. Tomatoes 11. Sweet bell peppers 12. Potatoes	organic ey are ed with	

Eat Seasonally

One last thing to consider in regards to food quality, is eating with the seasons as nature intended for the best health outcomes. Thanks to the commercial food industry, almost any fruit and vegetable is available all year round. Unfortunately this isn't always a good thing as it means food grown far away, out of season travels even further before it reaches our plates, loosing precious nutrient quality along the journey. In addition, it's thought that eating fruits and vegetables out of season for your local climate, can lead to circadian disruption, what is now known to have a tremendous cost on overall health and vitality.

The below is an Australian summer seasonal vegetable list

	asparagus	capsicum	daikon	onion	potato	tomato
	avocado	carrot	eggplant	onion, spring	radish	watercress
	beans*	celery	leek		shallot	zucchini
Vegetables	beetroot	corn	lettuce	peas	silverbeet	zucchini
	cabbage	cucumber	okra	peas, snow	squash	flower
				peas, sugar snap		

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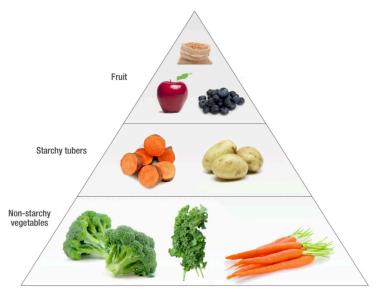
Vegetable Types

There are two main types of vegetables: non-starchy vegetables and starchy tubers. Both types are extremely important in the diet. In the carbohydrate pyramid (right), fibrous vegetables should be eaten the most liberally, because they tend to be less calorie dense than starchy varieties.

Vegetables are primarily carbohydrates, and carbohydrate intake in the diet should be modified based on your unique health conditions and needs. (read more about eating the right amount of carbs here.) It's good practice to only count carbohydrates from starchy vegetables, starchy plants and fruit.

Non-starchy fibrous vegetables like broccoli, cauliflower, cucumber or lettuce contain carbohydrates, but they contain a very low number of carbs, usually just a few grams. Additionally, carbohydrates from fibrous vegetables take work for humans to break down, and it cost us energy to do so, so the net gain of carbohydrate is probably pretty mini-

so the net gain of carbohydrate is probably pretty minimal, if not zero.

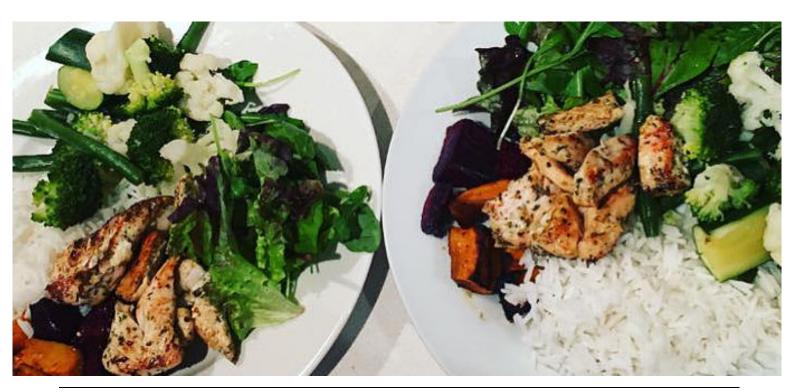


Resistant Starches

If you want to get even more bang for your buck with starchy carbohydrates, you can convert your starches to *resistant starches (RS)*. Resistant starch is a microbiota-accessible carbohydrate and has many well researched benefits. RS are formed when you cook, and then cool certain starches like potato, plantain, sweet potato or rice. RS are resistant to digestion by us, and thus have lesser impact on our blood sugar levels, and great benefits for our gut health. RS stimulates the growth of beneficial species like Bifidobacteria and Lactobacillus, the most prolific bacteria in our guts, and has been shown to protect against colon cancer, reduce weight, and improve insulin sensitivity.

Can't I just take a multi vitamin supplement?

Taking supplements is certainly something we advocate for optimal health, and in chronic health conditions or impaired digestion. However, you cannot supplement your way out of a poor diet! First we should endeavour to eat a varied diet that offers nutrients in their true form as mother nature intended, with all the necessary co-factors and associated nutrients, that help us absorb and use them.



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Let's eat more veggies!

In terms of exactly how many servings or vegetables to eat, a good benchmark is to try to eat some vegetables with every meal. You really can't overdo fibrous vegetables, but go easy with starches based on your carbohydrate requirements. If this is your first time with resistant starches, start slow to avoid gut discomfort. If you experience any discomfort at all by increasing vegetable content in your diet, reach out to us as it's a sign something is up with your gut health!

Here are some ideas on how to get more vegetables into your diet

- Double your current serving of vegetables
- Make vegetables the focus of your meals, and have a side serving of proteins and fat
- Add some spinach, kale, avocado or salad to your bacon and eggs
- Buy and cook vegetables you have never tried before
- Add some fermented vegetables like kefir or sauerkraut in condiment size servings to meals
- Create some delicious vegetable soups
- Add vegetables to your smoothie
- Check out our recipe website page for healthy ideas
- Aim to add at least 5 different vegetables to your dinner and lunch this week
- Eat some orange, green, purple and red vegetables every day

Veggie up content of traditional dishes

- Cauliflower pizza is great way to increase the veggies
- Load up a wok with healthy vegetables for a nutritious stir fry
- Try replacing your traditional pasta with Zucchini pasta (recipe here)
- Try Eggs in capsicum at breakfast for a tasty alternative to bread



Tips & Tricks

Ideally you should be preparing your own food for best results, to avoid mystery or harmful ingredients designed to make you eat and crave more. If you are stuck for time we recommend the following options to assist in bring more veggies to your plate.

- Check out the Leaf store in Brighton and Elwood for a range of healthy salads
- Foxes den in Elwood offer a great range of nutritious takeaway salads
- Bayside farm box delivers local, seasonal organic or biodynamic produce weekly to your home
- Check out your local farmers market for fresh, local produce
- Glo health in Elsternwick makes a range of great salads
- Poke me Hawthorn and South Yarra make healthy salads
- Holy Bowly in Hampton make a few take away salads

Avoid

Avoid pressed vegetable juice bandwagon. These juices are deprived of the nutritious fiber we talked so much about above, and unless they are cold pressed, they are likely devoid of nutrients too! In addition, many of these juices are combined with fruits which bumps up the sugar content substantially. Nature never intended for us to drink a huge bolus of juice at once! You would be MUCH better off making your own high fat, nut butter, coconut milk based smoothie, blended up with vegetables.

Bonus Points This Week

This week is a great week to add probiotics if you are not already taking them, to benefit **even more** seeing as you are increasing prebiotic fibre content which will help feed the good guys in your gut! Be sure to increase water intake to counter the additional fiber intake, and help keep the gut ticking along nicely!

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