

Apples

- Apples are rich in dietary fibre that helps to prevent absorption of dietary LDL cholesterol and prevents the colon from exposure to toxins by binding to cancer-causing chemicals.
- The antioxidant flavonoids and polyphenols such as quercetin and epicatechin, and tartaric acid - that gives the tart flavour - all protect the body from the deleterious effects of oxygen-derived free radicals and ROS.

Blueberries

- Blueberries are the highest antioxidant value fruits containing poly-phenolic anthocyanidin compounds such as quercetin and kaempferol, and flavonoids such as carotene-β, lutein and zeaxanthin.
- These compounds protect the body from harm and chlorogenic acid can help lower and control blood sugar (glucose) levels in type-II diabetes.

Health Benefits

- As stated in previous chapters

Health Problems

- The only problems are normally associated with the carbohydrate and the fructose levels of certain fruits - any eaten in excess can be problematic.
- People that are insulin resistant or overweight should limit high sugar / fructose fruits.
- Weight gain if you always fry or roast your F&V in lots of oil.

The Bottom Line:

What's not to like about fruits and vegetables? They are absolutely vital to the correct functioning of the body and to prevent ill health. Their fibre and nutrient profiles are off the scale. Eating them can help you maintain a healthy weight, as they are low calorie!! They look and taste amazing as well and will add colour, taste and incredible variety to any meal. It is also incredibly easy to fit them in. Try a small apple for breakfast (or mid-morning snack), two portions of veg or salad in your lunch, a portion of fruit in the afternoon and three portions at dinner in a stir-fry, or warm salad and there you have 7 - A Day! Go on then, get healthy! Everyone is doing it! Are you getting yours?



7-A-DAY FRUIT AND VEGETABLE ANALYSIS

Each month our nutritionist **Gary Baverstock** provides some basic science and unbiased information, to help demystify certain popular foods in our diet.

7 A DAY - Fruit & Vegetable Analysis

- Fruit and vegetables (F&Vs) are part of a healthy, balanced diet and will help us stay in good health, so it's important that we eat enough of them.
- The original 5 A DAY campaign from the World Health Organization highlighted that there are significant health benefits to getting at least five x 80g portions a day.
- 400g can lower the risk of serious health problems, such as heart disease, stroke and some cancers and is because F&Vs are:
 - An excellent source of most vitamins and minerals, including folate, vitamin C and potassium that are essential to health.
 - An excellent source of dietary fibre, which can help to maintain a healthy gut and prevent constipation, other digestion problems, and also reduce your risk of bowel cancer.
- However, newer research has demonstrated that it is over 550g (7 A DAY), which is needed for optimal health and (importantly) protect from ill health.
- It should include a variety of F&Vs, as they contain different combinations of fibre, vitamins, minerals and other nutrients, in a ratio of 5 vegetables - 2 fruits, due the fruit sugars.
- 80g looks like a decent sized plum without its stone, so a medium apple can be 1.5 portions.
- All F&Vs count towards your 7 A DAY, either from fresh, frozen, or canned (careful of sugars and salts), dried (less so) or juiced (only counts as one portion regardless of the quantity).
- Potatoes, yams and cassava don't count, because they mainly contribute starch to the diet.
- Pulses mainly contain great levels of fibre, meaning that these also only count as one portion whatever the quantity.

General Nutrition of Fruits and Vegetables

- F&Vs are low in fat and calories (unless you fry them or roast them in lots of oil).
- They contain high fibre, a type of beneficial polysaccharide linked to improved cardiovascular health, the ability to lower cholesterol, reduce disease-causing inflammation, and also offer protection against diabetes and insulin resistance.
- They are very rich in the antioxidant vitamins A and C that can help the body develop resistance against infectious agents, benefit skin health and is essential for healthy vision.
- Vitamin K, which some research suggests, may help preserve bone health and it is needed for blood clotting, helping wounds to heal properly.
- Vitamins B1, B2, B3, B5 and B6 that provide the body with energy, help metabolising the food we eat, nervous and immune system support and 100's of other crucial body processes.
- Vitamin B9 may help reduce the risk of cardiovascular disease and slow age-related memory decline, and is important in infant neural health.
- They are also rich sources of minerals like zinc, copper, calcium, selenium, potassium, iron, manganese, magnesium and phosphorus.
- These nutrients are needed for the correct functioning of the body, such as blood pressure, sexual health function, energy production and bone and muscle health.
- Leafy greens can also hold some amount of omega-3 fatty acids.

Nutritional values of selected raw Fruits and Vegetables

Fruit & Veg	Calories	Fat / Saturates	Total Carbs	Dietary Fibre	Total Sugars	Protein	Sodium
Kale	50 kcals	1g / 0g	10g	2g	0g	3g	43mg
Courgette	16 kcals	0g / 0g	3g	1g	2g	1g	10mg
Broccoli	34 kcals	0g / 0g	7g	3g	2g	3g	33mg
Squash	45 kcals	0g / 0g	12g	2g	2g	1g	4mg
Peas	81 kcals	0g / 0g	14g	5g	6g	5g	5mg
Apples	52 kcals	0g / 0g	14g	2g	5g	0g	1mg
Blueberries	57 kcals	0g / 0g	14g	2g	10g	1g	1mg

Based on 100g Values. Source: nutritiondata.com - sodium x 2.5 = salt quantity

Kale

- Kale contains health-promoting and cancer preventing phytochemicals, and indole-3-carbinol that is an effective immune modulator, anti-bacterial and anti-viral agent.
- It is also a very rich source of β -carotene, lutein and zeaxanthin - an important dietary carotenoid, beneficial for eye health and "age related macular degeneration disease" in the elderly.

Courgette

- Courgettes are rich in flavonoid poly-phenolic antioxidants such as carotenes, lutein and zeaxanthin.
- These compounds help scavenge harmful oxygen-derived free radicals and reactive oxygen species (ROS) from the body that play a role in aging and various disease processes.

Broccoli

- Broccoli is a storehouse of many phytonutrients such as thiocyanates, indoles, sulforaphane, isothiocyanates and flavonoids like beta-carotene cryptoxanthin, lutein, and zeaxanthin.
- Studies have shown that these compounds - by modifying positive signalling at molecular receptor levels - help protect against prostate, colon, urinary bladder, pancreatic, and breast cancers.

Butternut Squash

- Butternut squash has the highest levels of natural poly-phenolic flavonoid compounds like α - and β -carotenes, cryptoxanthin- β , and lutein from any root vegetable.
- These compounds convert into vitamin A inside the body and deliver some protective functions on the body, such as helping to maintain skin, hair, and eye health, and may help prevent and manage arthritis.

Peas

- They are good sources of protein and soluble and insoluble fibre that can bind to heavy metals, and they can provide healthy carbohydrate calories.
- Green peas are rich in fibre and phytosterols, especially β -sitosterol - a plant sterol that helps to naturally lower cholesterol levels, and health benefitting phytonutrients.