

Diet: Increasing Phytochemical Consumption – How to Eat More Fruit and Vegetables

In a previous article (“Phytochemicals – an army on your plate” - Inner Age Newsletter No.2 December 2005) we considered the beneficial effects of phytochemicals, non-nutritive substances found in plants that possess very significant health protective benefits. Phytochemicals are known to protect against and/or treat four of the leading causes of death – cancer, cardiovascular disease, diabetes and hypertension. There are hundreds and hundreds of different phytochemicals already known about with more being identified all the time. A single serving of vegetables may provide 100 phytochemicals alone.

The key to obtaining the maximum benefit from phytochemicals is to eat a wide range of fruit, vegetables and grains on a daily basis. Remember that if the plant foods you eat consist mostly of grains and other starchy foods, your daily dose of phytochemicals maybe quite low – fruit and vegetables are really where it’s at.

The US Department of Agriculture recommends that you eat 3 – 5 servings of vegetables and 2 – 4 servings of fruit every day. For many that would mean a significant increase in the amount of fruit and vegetables consumed, particularly if you consider that the average American only eats one serve of fruit and one serve of vegetables a day. However, increasing your fruit and vegetable intake needn’t be that daunting a task. Just take a look at some of the simple strategies set out below:-

- Keep fruits and vegetables (fresh, frozen, and canned) stocked and in sight
- Drink a glass of fruit juice every day say with breakfast. Have a fresh juice instead of a coffee or a soft drink
- Add chopped fruit to your breakfast cereal or yogurt
- Add fruit to cake and muffin mixes
- Make a milkshake and add fresh fruit or have a smoothie
- Snack on fresh chopped carrots, celery, broccoli, cauliflower, peppers – try them with dips, which may also have a vegetable content
- Snack on fresh fruits and on dried fruits like apricots and raisins
- Add fresh greens, carrots, celery, parsley, tomatoes, and/or beans to soups and casseroles.
- Add extra vegetables to stir fries, pasta dishes and pizza toppings
- Add lettuce, tomatoes, cucumber etc to your sandwich at lunchtime
- Have a side salad or side servings of vegetables with your main meal
- Have fruit or a fruit based dessert to finish your meal
- Try never to serve a meal without including at least one vegetable or piece of fruit

Remember adding extra fruit and vegetables to your diet needn’t be time consuming. Fresh, ready prepared fruits, vegetables and salads are readily available. Bananas are probably the original fast food – already wrapped and ready to go. Frozen, prepared vegetables can also be cooked quickly in the microwave.

What is a serve?

It’s all very well increasing the amount of fruit and vegetables in you diet, but you need to know what constitutes a serve so that you can work out if you are doing the right thing.

A serve of fruit is:

- 1 medium piece, eg, apple, banana, orange, pear
- 2 small pieces, eg, apricots, kiwi fruit, plums
- 150g or 1 cup diced pieces or canned fruit
- 125ml or ½ cup juice (but you can only count 1 glass a day as a serve no matter how many you drink)
- dried fruit eg, 4 dried apricot halves, 1 ½ tablespoons sultanas.

A serve of vegetables or legumes is:

- 75g or ½ cup cooked vegetables
- 75g or ½ cup cooked dried beans, peas or lentils
- 1 cup salad vegetables
- 1 medium potato.

Go for colour and variety

Phytochemicals give fruit and vegetables their colour, For example strawberries get their red pigmentation from a phytochemical known as anthocyanin which is known to have anti-cancer properties. Tomatoes, on the other hand, receive their red colouring from lycopene an antioxidant that helps prevents heart disease and cancer. (The bioavailability of lycopene is influenced by heat and fats so tomatoes are even better for you if they are cooked and eaten with a little oil.) Green plant foods are green as a result of chlorophyll which is known to fight disease. However, it is lutein, the yellow under pigment in leafy greens that is even more beneficial for us. It makes sense, therefore, to eat as many different coloured fruits and vegetables as possible so as to consume as many different phytochemicals as possible.

Variety is also essential because no single fruit or vegetable is going to be able to provide you with all the different nutrients, vitamins and phytochemicals that you need. Also by eating plenty of different plant foods, you

can benefit from the overlapping and possibly interactive effects of multiple phytochemicals.

Fruits and vegetables are not the only source of foods with antioxidant properties. Oats, wheat germ and some other whole grain products contain tocotrienols; beans and legumes contain isoflavonoids and phytoosterols; soy and soy products contain isoflavone and nuts and seeds contain ellagic acid and vitamin E.

Don't forget too that beverages, condiments, seasonings, and vegetable oils are also sources of plant foods and they may also contain substantial amounts of phytochemicals. For example, vegetable oils contain alpha-linolenic acid and are the greatest source of vitamin E, as well as having a role as antioxidant phytochemicals. Compounds found in alpha-linolenic acid may also help prevent heart disease. Monoterpenes, which are known to lower the risk of breast, skin, liver, lung, stomach and pancreatic cancers, are found not only in cherries and citrus fruit peel oils, but also in caraway, dill, spearmint and lemongrass.

So there you have it – increasing the amount of fruit and vegetables in your diet doesn't necessarily mean that you will have to rethink entirely the way that you eat. A bit of an adjustment here and there may be all that is needed to

reach the recommended daily number of servings. Not only will doing this increase the amount of phytochemicals you consume, with all their health protective and disease fighting benefits, you will also be adding fibre, vitamins and minerals to your diet as well as flavour, variety and texture without generally adding too many calories. A real "win-win" situation!

References:-

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