

Forward

This document is written to be a help to anyone who wants to improve his or her health. There is a lot of material in the public domain that has been produced by manufacturers of foods for their benefit, not ours the consumer.

The whole area is so confusing due to vested interest marketing. As new information comes to light this document will be upgraded and reviewed.

I hope it is of help to you.

Cheers

Michael Popplewell

## **Basic guidelines**

On one page, here is a brief summary of the current recommendations.

## **Carbohydrates**

Eat low GI foods, and eat lots of fiber, from vegetables, not from whole grains.

## **Fats**

Get at least 35% of your calories from good fats.

Reduce omega 6 fats, eat low fat or no fat products and replace with coconut oil and coconut cream. Avoid liquid oils, margarines and vegetable (seed) oils as they are high in omega 6.

Read labels, the stuff is everywhere in pre-prepared foods. Liquid oils (olive) for salad dressing only, and use apple cider vinegar.

## **Protein**

Eat up to 2 grams of protein per kilo of bodyweight.

If not vegetarian eat lots of connective tissue meat products such as gravy beef, osso bucco, lamb shanks etc, the gelatin will be helpful for joints and skin.

Eat grass fed livestock as first choice or wild caught fish of smaller size to reduce toxicity and to avoid farmed (grain fed and therefore omega 6 laden) fish.

## MyFitnessPal

Use MyFitnessPal (a web and smartphone based diet application) to count calories from food and exercise. This is the key to understanding the composition and total calories of your diet.

There are a number of ways you can use this program, if you are particularly motivated use it every day, if an elite athlete, use it daily for up to three to six months before major competitions.

If you are more relaxed about things but looking to improve your health and learn to eat more healthily, then do occasional audits by using this program for about a week at a time. This will give you an idea of how much you should eat and raise your awareness of the calorie and protein/carb/fat composition of the foods you eat.

## Macro Nutrient Proportions

Using MyFitnessPal to track your food consumption, and aim to have between 1.5-2 grams of protein per kilo of your body weight per day. Keep saturated fats high, mainly from coconut oil[1]. Fats should make up 35-40% of your calories each day. This level of fat in your diet has been shown to keep your anabolic hormones high[2], which will enable you to lose weight AND gain muscle at the same time. Keep polyunsaturated fats as low as possible (more about this later). After fats and protein, the rest of your calories are carbs, either starch or sugars (no need to be too careful about sugar)[3].

Aim to keep calories as per MyFitnessPal to maintain weight, you will lose weight if your body needs to, you will change your body composition to more muscle and less fat on this regime with loads of energy.

If you lose more than .5 kg per week, increase your calories by increasing your activity level in the MyFitnessPal application, as losses greater than this tend to decrease metabolic rate and also lead to muscle loss.

## What kinds of foods are good for you?

To know what foods are best for YOU specifically, get your food intolerances done at Australian Biologics (02) 9283 0807 6<sup>th</sup> Floor 379-383 Pitt St Sydney. Then avoid foods that you are intolerant to. This is a good investment as you can make a big difference to your health if strong intolerances are found.

## Carbohydrates

According to Ray Peat in his insightful article 'Vegetables, etc. \_Who defines food'[4], a lot of vegetable food we eat is not that good for us.

Plants have chemical defenses for their biologically critical parts. When you think about it, they cannot run away or kick you like an animal can, so they have to do something to try to survive. Grain, seeds, beans are the next generation of the host plant, so are critical to that species' survival. They are full of chemicals that are meant to stop predators from eating them such as phytates, phytoestrogens, enzyme blockers and protein inhibitors. These compounds interrupt mineral balance, block easy absorption of the nutrients, especially protein and cause havoc in the body in general[5].

Therefore it is a good idea to avoid or at the very least minimise these foods in your diet. The third world countries traditionally tend to heavily process these foods by soaking, fermentation, or remove the husk such as in rice[5]. Ever wondered why all Asian countries and India, despite historic food shortages and poverty eat white rice? While we in the West think we know best, and announce whole grains are much better to eat.

Following this concept while consuming carbohydrate, stone fruit is good to eat, as the parent plant wants you to eat it's fruit and therefore spread it's indigestible seed inside the nut. In general, most fruit is ok, especially in summer according to Chinese medical principles regarding the heating and cooling nature of food.

Similarly, in winter, plants that have their edible parts underground are good as they contain antifungals. Potatoes, sweet potatoes, carrots, turnips, parsnips, onions and beetroot are good in this respect.

White organic rice is better than brown rice as the 'don't eat me bits' are in the outer husk. When you think about it, all Asians and Indians don't eat brown rice, and they would if they had found it better for health.

Gluten seems to be a problem food for many[6, 7], and its consumption in populations has been found to correlate to obesity [8] as such it should be minimized in the diet even if it doesn't come up when you test for food intolerance.

Not just sugar, but other foods, that have very high glycemic indexes (GI), are not good for the body in that they flood the circulation and cause an insulin response that leads in turn to a low blood sugar, a vicious cycle. Recent research[9, 10] shows that these foods feed cancer if present in the body, as well as promote diabetes.

One solution is to eat lower GI foods, or mix the high GI foods with fats and or proteins, to slow absorption and change the blood sugar dynamic associated with consuming them. See Appendix I for an extensive list of foods and their GI.

Diabetes Australia[11] categorise the GI of foods in the following way.

Low GI foods are foods with a GI less than 55.

Intermediate GI foods are foods with a GI between 55 and 70.

High GI foods are foods with a GI greater than 70.

## **Gut Health and Fiber**

Interesting research has recently been published on gut health, nutrition and general health. It seems that the types of bacteria present in the gut correlate with health and disease. In recent episodes of Catalyst[21, 22], fiber has been associated with nourishment of beneficial bacteria. Acetic acid, a compound present in vinegar is reported here to moderate the immune system and has been associated with the resolution of asthma and chronic obstructive airways disease in rats.

It is therefore wise to add into your diet significant amounts of fiber, aim for at least 50 grams per day and vinegar. See appendix 2 for foods and their fiber contents.

Note that there are no whole grains in the appendix, the other substances present in whole grains cause digestive distress, see above. Not all fiber is created equal; some actually promote cancer and are estrogenic, producing toxins as they are broken down in the large bowel. Too much of grain sourced fiber actually reduces growth hormone and testosterone[2] so should be avoided. Raw carrot is a good form of healthy fiber and makes a great snack between meals[28, 29].

## **Oils and fats.**

According to Peat[12] [13] [14] [1], Gillespie[15] and Guyenet[16], due to the introduction of small seed oils or 'vegetable oil' in our diet, there is now far too much omega 6 oil in Western diets[17]. A healthy ratio between omega 3 and 6 seems to be between 1:4 and 4:1[18], while in America the ratio is now 1:10 or more[17]. Both omega 6 and 3 fats should be kept to an absolute minimum, especially omega 6[13].

While denied by the providers of these toxic vegetable oil products, the increase presence of omega 6 in the Western diet has led to the many health problems that are rampantly on the increase; including obesity, diabetes, heart disease, thyroid problems, arthritis, allergies and cancer.

Polyunsaturated fats are inherently chemically unstable compounds that oxidise readily[12] [13], causing biochemical havoc in our body. Once consumed, we have no choice but to incorporate these toxic unstable substances into our structure. Their intrinsic instability leads to gene degradation and generalized inflammation in our tissue. Omega 6 oil mimics estrogen as a thyroid suppressant[19] causing weight gain.

The supposed answer from the industrialised food suppliers to our current omega 6 problems is for us to have more omega 3, and fish or krill oil has therefore been promoted as a health food.

Small seed oils were introduced into our diet when their traditional market (use in oil based paints) began to disappear due to the development of synthetic water-based paints around 1950[15]. They started with margarine, a terrible product that was promoted as a health food, and they vilified saturated fat with pseudo-science papers and the propagation of the ridiculous myth/idea that saturated fats clog up your arteries, based on the fact that saturated fats are solid at room temperature. Our body temperature is around 38 degrees, these fats are liquid at this temperature; what a load of rubbish!

Around this time they also started to get their product into feed for livestock; grain fed is the normal farming practice now. When cows are fed lots of omega 6 fats, it causes their thyroid to be depressed and the cow gains weight easily, which farmers love. The trouble is the fat in meat tissues are then laden with omega 6 oil, which is in turn passed on to us, upsetting our omega 3-6 balance; one of the factors that contribute to our current Western epidemic of diseases previously mentioned. So successful have the wholesalers of small seed oil been that they now fill four of the five most profitable food producing companies in the world.

The rubbish that is played over and over again regarding saturated fat and heart disease is just that: rubbish. An island culture near New Zealand called the Tokelaus[20], while observing their traditional diet of at least 50% of their calories from coconut oil, living on a diet of yams, sweet potato, fruit, fish and coconut oil and cream had no heart disease, cancer, obesity or diabetes to speak of. Western medical authorities would say that such a diet is a sure way to get a heart attack...

This presence of omega 6 fat in our mass produced meat makes it important to employ the following strategies; eat grass-fed organic meat where possible, if eating industrially produced cheap cuts of meat, cook them slowly and allow to cool overnight, skim the toxic omega 6 fat off the top before using. Eat plenty of clean saturated fats from sources such as coconut oil, coconut milk and coconut cream.

Of interest is the current fad of taking large amounts of coconut oil as a mono diet to cleanse the body. There seems to be mounting evidence that ingesting coconut oil leads to positive changes in the body. Rather than going to the extreme of eating only coconut oil for a week or so, why not just take 30 grams 2

or 3 times a day in your food in an ongoing pattern? This will have sustained positive effects, and in the long run be more beneficial than a quick fix followed by more of an old incorrect eating pattern.

## Protein

Two grams per kilo of protein is the most that can be used according to research[23], therefore use MyFitnessPal to keep protein around this level.

As mentioned in the carbohydrate section, beans are a poor choice for obtaining protein due to the destructive compounds present, placed there for self preservation by the plant. Soy beans are a prime example of this principle; laden with phytoestrogens; they cause metabolic and hormonal havoc in the body, in both sexes.

In the West, we are increasingly eating muscle meat only; there has been a steady move away from the 'cheaper' cuts such as gravy beef in favor of sirloin, Scotch fillet etc. What is not well known is that the amino acid profile of muscle protein is adrenally stimulating, while the amino acids in gelatin (connective tissue) are neutrally restorative[24].

It is therefore important to eat more meat with connective tissue in it; lamb shanks, osso bucco or gravy beef, all slow cooked. It is also recommended to get beef tendon from Asian butcher and add this to dishes. Aim for 50% muscle meat and 50% gelatin in your diet.

Eggs are another maligned food, and are a good cheap protein source. Dietary cholesterol has been shown to have no links to blood cholesterol, in fact blood cholesterol should increase with age with positive health effects[25]. Eat eggs from organic grass-fed hens where possible.

## How to do this diet

To adhere to this diet, one must be organized. Most meals will need to be prepared at home, as calculating the correct amounts of protein, carbs and fats is virtually impossible from takeaway or restaurant food. Using digital kitchen scales for portion control at home ensures precision. A small amount of meals from these sources will not ruin this diet; aim for nine out of ten meals to be home cooked.

A good habit to get into is to cook larger amounts of this diet's staples; potatoes, rice, steamed veggies, osso bucco and other protein sources such as fish or chicken breast. Store in Tupperware™ in the fridge, making up meals for the day and taking with you to work or post workouts.

Meals at home become very quick and easy when the ingredients are pre-prepared; you then only have to weigh the parts of the meal, put into a fry pan with coconut oil and briefly heat up with some spices and you are ready to go in minutes.

## **Eating to increase metabolic rate**

A very large percentage of the population has slow metabolic rates, which manifest as low energy, obesity and so on. This is in no small part due to the inclusion of small seed oils in our diet putting pressure on our thyroid to lower metabolic rate. If you are one of the many who suffer from this problem, the strategies outlined here can be used to help increase your metabolic rate.

These strategies are meant to be used in conjunction with the recommendations outlined elsewhere in this document; proper proportions and the correct types of protein, fats and carbohydrates, and the other recommendations mentioned as well.

Diets typically involve a severe restriction of calories and or a food group to lose weight. The end result is after much suffering, usually the dieter has lost some weight, but their metabolic rate has been suppressed. This leads to the common scenario of yo-yo dieting, where weight is lost during the dieting phase and put back on so easily post diet.

A different approach is clearly needed, one where your metabolic rate is increased at the end of the process.

Let's imagine that every time you spent money, someone came along and reimbursed you. Pretty soon you would get used to spending wouldn't you? Using the strategy outlined here leaves you with a higher metabolic 'spending rate', by ensuring that your body always has the calories it needs after it spends them.

Exercise does increase one's metabolic rate and is a useful, and almost indispensable inclusion to a weight loss program. What we do shortly after exercise however will make all the difference to our metabolic rate. Starving ourselves immediately after working out will have the disastrous effect of severely reducing our metabolic rate.

The key strategy to increasing your metabolic rate is to replace the estimated calories consumed during exercise within a one to two hour window post exercise. On top of this try to eat four meals a day, more meals equal greater stimulus to the metabolism.

The first step is to get a baseline of how many calories you need to maintain your weight, paying special attention to the days you don't exercise. This involves using the MyFitnessPal application as suggested in the main body of this



document. Once you have determined this, a small amount of calories are deducted, say 300 a day. Next, every time you exercise, an estimate of the calories used is added to your daily target, and is consumed in the sixty-minute window post exercise. Weighing yourself every day is critical to this approach as sudden changes in weight will reflect glycogen reserve changes, reflecting incorrect estimates of exercise calorie consumptions.

There are two types of weight loss; 'hard' and 'soft'. Hard weight loss is loss of fat and muscle tissue, while soft weight loss is the loss of glycogen stored in your muscles and liver. We store about 2 kilograms of glycogen. Each gram of glycogen consists of 3-4 parts water and 1 part carbohydrate. This means one kilo of glycogen contains 200-250 grams of ChO or 800-1000kCal. When your body is substantially depleted of glycogen and it is not replaced in a timely way, say 2-4 hours, it begins to break down fats and protein to restore the glycogen. This is because when your body is depleted of glycogen it is vulnerable and will be unable to exercise effectively if an emergency happens.

For example; if you weigh one kilo less the next day after an intense session and are not dehydrated, which can be determined by the colour of your urine (clear or light colour urine indicates you are not dehydrated), you need to add about 800-1000Kcal to that day's nutritional requirements, and consume these extra calories in that morning meals and adjust your estimate of the caloric requirement of that workout in future.

If you consistently adhere to this strategy, your metabolic rate will be stimulated to the point that it will be hard to keep up. Eventually, like everything in life, you will fall away from using this approach, but at the conclusion you will have a high metabolism, which will hold you in good stead until you decide to get on the wagon again.

### **Supplements:**

Take Resveratrol every day if over 25 years, it is an anti-aging supplement which has been shown to inhibit the action of genes that cause aging.

Vitamin E is an under-rated supplement; Ray Peat[26] shows it is cardio protective much more than just another anti-oxidant and offsets the effects of chronic excess of Omega 6 fats in the diet.

Vitamin D is protective against colds, especially during winter months when we don't get enough exposure to sunlight on our skin to produce our own. It also acts like a steroid[27] so particularly useful for athletes

Take a good quality probiotic every day. There are many food additives and preservatives put into our food to increase shelf life that kill intestinal flora.

## Other tips

Too much iron in the diet is dangerous too [30] and has been linked to premature aging. Coffee contains substances which bind to iron blocking absorption, so have coffee when eating red meat or eggs [31].

Water only to thirst. The mindless mantra 'you must have 8 glasses of water a day' is just that; mindless. Water taken excess to requirement has a negative effect on the body, depleting important electrolytes and suppressing thyroid function as well [32].

Of course, if you are exercising, make sure you don't get dehydrated. Weighing yourself immediately before and after exercise will give you a good idea of how much hydration you require in various scenarios.

In his article Radiation and Growth[33], Ray Peat strongly warns against X-rays as a destructive unnecessary procedure in the majority of cases. Ultrasound and MRI is better option.

## Sports Performance tweaks

If you do not have the ideal body composition, the potent combination of using MyFitnessPal, the general dietary recommendations above and regular, monthly skinfold measurement will ensure that you steadily reach your goal. It is important not to lose weight too quickly as muscle mass will be effected adversely.

The strategies above will ensure you will lose fat if necessary and not muscle, or gain muscle and not fat if lean mass increase is an important factor for your performance.

Through trial and error, you will gradually get to know what your base caloric requirements are on rest and training days. You will also easily get to your ideal weight for competition.

Once this phase has passed, the aim is to maintain this weight during the intense exercise required to bring on a peak and the reduction of training that accompanies a taper.

This is where this program really can add to your performance, not just your general health. During this phase in competition preparation, more than ever, recovery is critical. Through closely monitoring your weight with digital scales the next day after hard workouts you can start to understand the caloric requirements specific to you and your workouts.

There are two types of weight loss; 'hard' and 'soft'. Hard weight loss is loss of fat and muscle tissue, while soft weight loss is the loss of glycogen stored in your muscles and liver. An athlete of average build stores about 2 kilograms of

glycogen. Each gram of glycogen consists of 3-4 parts water and 1 part carbohydrate. This means one kilo of glycogen contains 200-250 grams of ChO or 800-1000kCal. When your body is substantially depleted of glycogen and it is not replaced in a timely way, say 2-4 hours, it begins to break down fats and protein to restore the glycogen. This is because when your body is depleted of glycogen it is vulnerable and will be unable to exercise effectively if an emergency happens.

If this depletion is repeated, recovery is compromised, stress is elevated with increased levels of cortisol, loss of muscle mass occurs and performance declines, the last thing an athlete wants, especially leading up to a big event during the intense training required for peaking.

For example; if you weigh one kilo less the next day after an intense session and are not dehydrated, which can be determined by the colour of your urine (clear or light colour urine indicates you are not dehydrated), you need to add about 800-1000Kcal to that day's nutritional requirements, and consume these extra calories in that morning meals and adjust your estimate of the caloric requirement of that workout in future.

## **Sports Performance supplements**

Protein is touted as a critical part of a sporting diet and whey powders are promoted as the magic bullet. This is the biggest deception ever; research [23, 34] reports we cannot use more than 2 grams per kilo of protein per day. Protein consumed over this amount is turned into carbs or fat and the excess nitrogen is excreted, creating unnecessary work for the liver and kidneys. Many studies have shown this, but the manufacturers of protein supplements don't care, they want to sell you their crap.

The idea of rapidly absorbed protein is another crock; in a similar way to the rebound that occurs in blood sugar when too much sugar is consumed, high levels of amino acids in the blood stream cause the liver to strip them out (again turning the protein into expensive carbs and fat), leading to a low blood protein level about 3 hours after consumption of the whey. The manufacturers know this, but carry on about the increase in protein synthesis that occurs during the 2 hour window after working out while failing to mention the catabolism that occurs during the next 2 hours as the body breaks down muscle to restore the low blood protein levels. During this next two-hour period when blood protein levels are low you lose almost all the gains of the first two hours, as well as passing through a depressed immune period as your immune system needs adequate levels of blood protein to function adequately.

After using MyFitnessPal for a short time you quickly realize that it is very easy to get sufficient protein from a normal diet especially when exercising as there are increased caloric requirements. It is important to have protein already in your bloodstream post exercise, but if you eat a normal meal 3 hours before exercise sufficient protein will be present.

The only proven supplement strategy to gain muscle involves taking a small (six gram) dose of essential amino acids just prior to working out[34, 35], this will stimulate greater levels of protein synthesis without triggering a blood protein 'rebound'. Interestingly, even though research has demonstrated this, the manufacturers of protein supplements do not provide this as a product. The closest commercial product available is Musashi's Kuan the creative, which contains essential amino acids, but their recent version has a large amount of artificial sweetener in it, which ruins it as a product for obvious reasons... A small amount of whey protein isolate if you are not dairy intolerant is the go added to a sports recovery drink such as Gatorade or Staminade.

Supplements that do appear to be promising are beetroot juice for endurance, Lactaway™ for endurance and strength, creatine, beta alanine for strength and strength endurance. If you suffer cramps, have tight muscles, or perspire excessively, try taking a magnesium supplement regularly such as Ultra Muscle Eze™. Include these in cycles up to important events of no longer than 12 weeks.

Anything taken for long periods of time becomes ineffective as your body adjusts to it and begins to ignore the ergogenic effect.

## Appendix I

### Glycemic Index of common foods[36].

#### High GI Foods

	GI
Lucozade®, original (sparkling glucose drink)	95±10
Baked russet potato, average	111
Fruit Roll-Ups®	99
Baguette, white, plain	95
Cornflakes™, average	93
White rice, average	89
Instant mashed potato, average	87
Instant oatmeal, average	83
Pretzels, oven-baked	83
Rice cakes, average	82
Boiled white potato, average	82
Puffed wheat, average	80
Pizza, plain baked dough, served with parmesan cheese and tomato sauce	80
Gatorade	78
Coco Pops™, average	77
Vanilla wafers	77
Waffles, Aunt Jemima (Quaker Oats)	76
Grapenuts™, average	75
Cream of Wheat™, Instant (Nabisco)	74
Graham crackers	74
Soda crackers	74
Kaiser roll	73
Wonder™ bread, average	73
Bagel, white, frozen	72
Watermelon	72
White wheat flour bread	71
Whole wheat bread, average	71
Sweet potato, average	70

#### Medium GI Foods

Special K™ (Kellogg's)	69
Pita bread, white	68
Fanta®, orange soft drink	68
Cranberry juice cocktail (Ocean Spray®)	68
Quick cooking white basmati	67
Cream of Wheat™ (Nabisco)	66
Muesli, average	66
Couscous, average	65

Shortbread	64
Rye crisps, average	64
Raisins	64
Macaroni and Cheese (Kraft)	64
Coca Cola®, average	63
Banana, ripe	62
Hamburger bun	61
Raisin Bran™ (Kellogg's)	61
Honey, average	61
Sweet corn on the cob, average	60
Grapes, average	59
50% cracked wheat kernel bread	58
Spaghetti, white, boiled 20 min, average	58
Ice cream, regular	57
Pumpernickel bread	56

#### Low GI Foods

Banana cake, made without sugar	55
All-Bran™, average	55
Oatmeal, average	55
Microwave popcorn, plain, average	55
Yam, average	54
Quinoa	53
Corn tortilla	52
Parsnips	52
100% Whole Grain™ bread (Natural Ovens)	51
Potato chips, average	51
Snickers Bar®	51
Green peas, average	51
Orange juice, unsweetened	50
Brown rice, average	50
Apple, made without sugar	48
Bulgur, average	48
Banana cake, made with sugar	47
Macaroni, average	47
Sponge cake, plain	46
Spaghetti, white, boiled, average	46
Chicken nuggets, frozen, reheated in microwave oven 5 min	46
Apple, made with sugar	44
Apple juice, unsweetened, average	44
Pear, canned in pear juice	43
Vanilla cake made from packet mix with vanilla frosting (Betty Crocker)	42
Dates, dried	42
Peach, average	42
Spaghetti, wholemeal, boiled, average	42

Corn chips, plain, salted, average	42
Milk, full fat	41
Orange, average	40
Peach, canned in light syrup	40
Baked beans, average	40
Apple, average	39
Tomato juice, canned	38
Converted, white rice (Uncle Ben's®)	38
Ice cream, premium	38
Pear, average	38
Chickpeas, canned in brine	38
Pizza, Super Supreme (Pizza Hut)	36
Carrots, average	35
Coarse barley bread, 75-80% kernels, average	34
Reduced-fat yogurt with fruit, average	33
Blackeye peas, average	33
M & M's®, peanut	33
Milk, skim	32
Fettucini, average	32
Navy beans, average	31
Wheat tortilla	30
Whole wheat kernels, average	30
Black beans	30
Prunes, pitted	29
Kidney beans, average	29
Lentils, average	29
Pearled barley, average	28
Cashews, salted	27
Grapefruit	25
Soy beans, average	15
Chickpeas, average	10
Peanuts, average	7
Hummus (chickpea salad dip)	6

## Appendix 2 Fiber content of common foods.

<b>Vegetables (cooked)</b>	serving size	Total Fibre (g)	Soluble Fiber (g)	Insoluble Fibre (g)
Turnip	1/2 cup	4.8	1.7	3.1
frozen Peas, green, frozen	1/2 cup	4.3	1.3	3
Okra,	1/2 cup	4.1	1	3.1
Potato, sweet, flesh only	1/2 cup	4	1.8	2.2
Brussels sprouts	1/2 cup	3.8	2	1.8
Asparagus	1/2 cup	2.8	1.7	1.1
Kale	1/2 cup	2.5	0.7	1.8
Broccoli	1/2 cup	2.4	1.2	1.2
Carrots, sliced	1/2 cup	2	1.1	0.9
Green beans, canned	1/2 cup	2	0.5	1.5
Beets, flesh only	1/2 cup	1.8	0.8	1
Tomato sauce	1/2 cup	1.7	0.8	0.9
Corn, whole kernel, canned	1/2 cup	1.6	0.2	1.4
Spinach	1/2 cup	1.6	0.5	1.1
Cauliflower	1/2 cup	1	0.4	0.6
<b>Raw Vegetables</b>	serving size	Total Fibre (g)	Soluble Fiber (g)	Insoluble Fibre (g)
Carrots, fresh	1,7/2in.long	2.3	1.1	1.2
Celery, fresh	1 cup chopped	1.7	0.7	1
Onion, fresh	1/2 cup chopped	1.7	0.9	0.8
Pepper, green, fresh	1 cup chopped	1.7	0.7	1
Cabbage, red	1 cup	1.5	0.6	0.9
Tomato, fresh	1 medium	1	0.1	0.9
Mushrooms, fresh	1 cup pieces	0.8	0.1	0.7
Cucumber, fresh	1 cup	0.5	0.2	0.3
Lettuce, iceberg	1 cup	0.5	0.1	0.4
<b>Fruits</b>	serving size	Total Fibre (g)	Soluble Fiber (g)	Insoluble Fibre (g)
Apricots, fresh w/skin	4	3.5	1.8	1.7
Raspberries, fresh	1 cup	3.3	0.9	2.4
Figs, dried	1 1/2	3	1.4	1.6
Mango, fresh, flesh only	1/2 small	2.9	1.7	1.2
Orange, fresh, flesh only	1 small	2.9	1.8	1.1
Pear, fresh, w/skin	1/2 large	2.9	1.1	1.8
Apple, red, fresh w/skin	1 small	2.8	1	1.8
Strawberries, fresh	1 1/4cup	2.8	1.1	1.7
Plum, red, fresh	2 medium	2.4	1.1	1.3
Applesauce, canned	1/2 cup	2	0.7	1.3
Apricots, dried	7 halves	2	1.1	0.9
Peach, fresh, w/skin	1 medium	2	1	1
Kiwifruit, fresh, flesh only	1 large	1.7	0.7	1
Prunes, dried	3 medium	1.7	1	0.7



Grapefruit, fresh	<b>1/2 medium</b>	<b>1.6</b>	<b>1.1</b>	<b>0.5</b>
Blueberries, fresh	<b>3/4 cup</b>	<b>1.4</b>	<b>0.3</b>	<b>1.1</b>
Cherries, black, fresh	<b>12 large</b>	<b>1.3</b>	<b>0.6</b>	<b>0.7</b>
Banana, fresh	<b>1/2 small</b>	<b>1.1</b>	<b>0.3</b>	<b>0.8</b>
Melon, cantaloupe	<b>1 cup cubed</b>	<b>1.1</b>	<b>0.3</b>	<b>0.8</b>
Watermelon	<b>1 1/4 cup cubed</b>	<b>0.6</b>	<b>0.4</b>	<b>0.2</b>
Grapes, fresh w/skin	<b>15 small</b>	<b>0.5</b>	<b>0.2</b>	<b>0.3</b>
Raisins, dried	<b>2 tbsp</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>

## Reference List

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