## How to Count Fruit and Vegetables

After reviewing a number of different information sources on the amino acid and protein content of foods, we are recommending the following;

## Exchange Foods

Potatoes: the following should all be counted as 1 exchange
Note: all the weights are cooked weight. The values for the different types vary as the cooking methods can affect the hydration of the food and therefore the protein/amino acid content.

|  | PKU | HCU | MSUD | Other protein disorders |
| :---: | :---: | :---: | :---: | :---: |
| Boiled/mash potato | 80 g (1 $1 / 2$ blue scoops) | 80 g (1 $1 / 2$ blue scoops) | $80 \mathrm{~g}(11 / 2$ blue scoops) | 60 g (1 blue scoop) |
| Baked potato | 80 g | 80 g | 80 g | 60 g |
| Roast potato | 60 g | 60 g | 60 g | 40 g |
| Chips/Fries* | 45 g | 45 g | 45 g | 35 g |

*This weight is for homemade chips or ones that have no protein containing ingredients. For chips/fries that contain protein containing ingredients such as milk or flour coating, count the protein content as per the nutritional label. $100 \mathrm{~g} \div$ protein content per $100 \mathrm{~g}=$ amount that equals 1 exchange.

Avocado: the following should all be counted as 1 exchange

|  | PKU | HCU | MSUD | Other protein <br> disorders |
| :--- | :--- | :--- | :--- | :--- |
| Avocado | 75 g <br> $(1 / 2 ~ a v o c a d o)$ | 50 g <br> (11/3 avocado) | 75 g <br> $(1 / 2$ avocado $)$ | 50 g <br> $(1 / 3 \mathrm{avocado})$ |

Peas: 2 tablespoons = 1 exchange
Broad beans: 10 broad beans = 1 exchange
Baby Corn: 5 pieces ( 85 g ) = 1 exchange

## Fruit \& Vegetables That Need to be Counted if $>1$ Portion is Eaten

For the following fruit and vegetables, if the portion identified below is eaten once a day this portion is free. However if more than this portion is eaten, then the additional portion of fruit or vegetables needed to be counted as 1 exchange.

For example, 5 mushrooms in the day can be eaten freely, but if 10 mushrooms are eaten, then the additional 5 mushrooms should be counted as 1 exchange. Also, 80 g of sweet potato in the day can be eaten, but if 200 g of sweet potato is eaten, then the additional 120 g should be counted as $11 / 2$ exchange

Bananas: 1 banana (any size)
Broccoli: 8 florets ( 85 g )
Brussel sprouts: 6 sprouts (90g)
Cauliflower: 9 small florets ( 90 g )
Mushrooms: 5 mushrooms ( 80 g )
Oranges: 1 orange

Plantain: 1 plantain
Pomegranate: 1 pomegranate
Sharon fruit: 1 sharonfruit
Spinach: 45g, cooked (1 blue scoop)
Sweet potato: 80 g ( $11 / 2$ blue scoops)
Yam: 100g

## Free Fruit and Vegetables

## Fruit (fresh, tinned and frozen)

| Apple | Grapes | Passion fruit |
| :--- | :--- | :--- |
| Apricots | Guava | Peaches |
| Blackberries | Jackfruit | Pears |
| Blackcurrants | Kiwi | Physalis |
| Blueberries | Kumquat | Pineapple |
| Cherries | Lemons | Plums |
| Clementine | Limes | Prunes |
| Cranberries | Lychees | Raisins |
| Currants | Mandarins | Raspberries |
| Damsons | Mangoes | Rhubarb |
| Dates | Mangosteens | Satsuma's |
| Dragon fruit | Melon cantaloupe | Star fruit |
| Figs | Melon honeydew | Strawberries |
| Ginger | Nectarines | Sultanas |
| Gooseberries | Olives | Tangerines |
| Grapefruit | Papaya | Watermelon |

Vegetables (fresh, tinned and frozen)

| Artichokes | Cucumber | Peppers |
| :--- | :--- | :--- |
| Asparagus | Curly kale | Pumpkin |
| Aubergine | Fennel | Radish |
| Beansprouts | French beans | Rocket |
| Beetroot | Garlic | Runner beans |
| Butternut squash | Gherkin | Samphire |
| Cabbage | Green beans | Scallions |
| Carrots | Leeks | Shallots |
| Cassava | Lettuce | Spring onion |
| Capers | Mangetout | Sugar snap peas |
| Celeriac | Okra | Swede |
| Celery | Onions | Tomato |
| Chayote | Pak choi | Turnip |
| Courgette | Parsnips | Water Chestnuts |

