



Dietary Assessment & Education for **ADULTS: Tool 1 HEC Healthy Eating Pyramid**

- The HEC pyramid was developed by **HEC nutrition experts** in 2001. It is based on dietary recommendations made in the Mediterranean & Asian pyramids, the CSIRO 12345+ food plan and the Australian Guide to Healthy Eating.
- It can be used as a quick guide to assessing nutritional adequacy and excesses of your **"usual" food intake**.
- It can also be used as a dietary assessment and education tool by doctors and dietitians in clinical practice.
- If you consume the **servings in this pyramid** and have a **high weekly food variety score (tool 2)** you are having a **nutritionally adequate** diet and an adequate amount of **'protective' foods** associated with good health and longevity.

Instructions: How many times a month, week or day would you have ONE SERVING of the following foods?

- Every time you achieve the serving size for each food category (see next page for serving sizes), shade in the appropriate box within the pyramid. **Please note that box sizes may not necessarily correspond with food amounts.**
- If all the boxes are shaded within the food category, then use the boxes extending outside the pyramid.
- If you only have half a serve, shade only half the box. .

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How many servings a **MONTH** would you usually have :

Monthly

Fatty Fast Food Meals

Weekly

Deep / Shallow Fried Food

Eggs

How many servings a **WEEK** would you usually have of the following foods:

Fatty Cheese

Nuts / seeds

Poultry / Pork

Red meat

Fish

Legumes / Soy

Alcohol

Please note:

Shade ONE box in the pyramid every time ONE serving of the food is consumed OR HALF a box if HALF a serve is consumed. If all boxes are shaded in pyramid, shade boxes outside pyramid.

Daily

Treats/drinks

How many servings **DAILY** would you usually have of the following foods:

Added oil / margarine

1tsp 1tsp 1tsp 1tsp 1tsp 1tsp 1tsp 1tsp

Milk & milk products

Fruit or 100% juice

Vegetables

1/2 cup 1/2 cup 1/2 cup 1/2 cup 1/2 cup

Bread/Cereals

Water/other



Examples of **ONE** serving: **ADULTS:** (Copyright 2001, <http://www.healthyeatingclub.com>)
 (Serving sizes adapted from CSIRO 12345+ food & nutrition plan and Australian Guide to Healthy Eating)

Fast food meals	Meat pizzas (several pieces); meat pie, sausage roll, pastie, chiko roll; fried chicken (pieces/ nuggets); hamburgers (from fast food outlets); hot dog/sausage meal; battered fish (eat batter)
Deep/shallow fried food (home/restaurant):	Potato chips/french fries; deep fried vegetables (e.g. tempura); fried dim sims; fried vegetarian patties, spring rolls, nachos, falafel etc; deep fried flour coated tofu; fried meat/chicken/fish e.g. meat balls, schnitzel, sweet-sour pork, calamari (* stir fried foods are not included in this category)
Eggs (meat alternative)	2 small eggs e.g. scrambled, boiled, omelette, in cooking = 1 serve of meat
Nuts/Seeds (meat alternative)	1/2 cup nuts e.g. 30 almonds, 40 peanuts, 15 pecans/small macadamias; 1/4 cup seeds or 3 tablespoons seeds; 2 tablespoons of peanut butter/other nut or seed spreads = 1 serve meat
Fatty Cheese	>20g fat /100g: 40g cheese (just over 1 oz) or 2 cheese 'single slices' or 1/3 cup shredded e.g. tasty cheese, reduced fat tasty cheese, fetta, edam, swiss, regular processed cheese, cream cheese, camembert (cheeses with <20g fat/100g include Devondale 7, ricotta, cottage, Kraft free singles, Coon or Farmland extra light)
Poultry/Pork (meat alternative) (prefer lean cuts, cut fat/skin):	65-100g cooked chicken, turkey or pork (65g is the size of 2 match boxes and 100g is size of a pack of cards) = 1 serve of meat . See 'treats' for luncheon meat. See 'fatty fast food meals' for sausages.
Red Meat (prefer lean cuts, cut fat/skin):	1 serve of red meat (or meat alternative) recommended daily; 65-100g cooked beef, lamb, goat, veal (65g = the size of 2 match boxes; 100g = the size of a pack of cards); 2 small lamb chops or 1 large lamb chop or 2 slices roast meat or 1/2 cup lean mince. See 'treats' for processed luncheon meat. See 'fatty fast food meals' for sausages.
Fish (meat alternative) (prefer unbattered)	80-120g cooked, tinned, smoked fish or seafood = 1 serve meat ; include battered fish here if you remove batter before eating otherwise see 'fatty fast food meals'. Most fillets are about 100g or 6 prawns or 1/2 200g can of drained tuna/salmon or can of drained sardines; fish finger=25g.
Legumes/Soy (meat alternative)	2/3 cup (about 200g) cooked dried beans (e.g. soup, salad), baked beans, lentils (soup, Dahl), chickpeas (soup, curry); 2 lentil/chickpea patties; 2 soy sausages or tofu/soy burger; 100g tofu/tempeh. = 1 serve meat . See 'milk and milk products' for soy drink.
Alcohol	1 standard drink = 10g alcohol = beer full strength 285ml, beer reduced alcohol (3.3%) 1 can 375 ml, light (2.2%) 570ml, low alcohol (0.9%) 4 cans, wine (12%) 100ml (1/2 glass), sherry (18%) 60ml, spirits (40%) 30ml, 1-3 cocktails.
Treats/drinks	1 large glass of soft drink, cordial, fruit juice drink, caffeinated (energy) drinks; 1 medium piece of plain cake or sweet bun; 1 small piece of rich cake or sweet pastry; 3 plain sweet biscuits or 1-2 rich biscuits; 5 medium or 8 small dry biscuits e.g. shapes, snax, ritz; 1 regular scoop ice cream, 1 large scoop low fat soft serve (gelati, colombo, yoghurt); 1 small doughnut; 4 small squares (25g) of chocolate; half a medium (50g) chocolate bar or one fun size bar; 1 small (30g) 'health' bar; 5 toffees/ lollies; 2 tablespoons sugar; 30g potato crisps/twisties etc; 1 slice fatty processed meat e.g. salami, mortadella, strassburg; 2 slices regular processed meat e.g. ham, chicken roll, corned beef; 2 tablespoons regular cream or mayonnaise
Added margarine or oil	1 teaspoon of any margarine, butter/dairy blend, oil (1 tablespoon =4 teaspoons)
Milk & Milk Products (prefer reduced fat)	1 cup (250ml) reduced fat cow's or goat's milk or calcium fortified soy drinks; 1 cup light custard; 1/2 cup light evaporated milk; 40g cheese or 2 cheese 'single slices' (cheese should be <20g/100g fat - for higher fat cheeses see 'Fatty cheese'; cottage or ricotta are low in calcium so they cannot be counted as a milk product serve); 1 cup (200g) reduced fat yoghurt (plain or fruit).
Fruit or 100% juice	1 medium sized fruit e.g. apple, pear etc; 2 smaller sized fruit e.g. apricot, kiwi, figs, 1/4 medium melon; *4-6 pieces dried fruit (dates, figs, prunes, apricots); *2 tablespoons sultanas/raisins, etc. *1 cup diced pieces of canned fruit; medium glass pure juice (* only 1 serve/day can count as fruit serve)
Vegetables	1/2 cup of any vegetable or a mixture of vegetables; 1 medium potato
Bread/Cereals (prefer wholegrain)	1 thick slice of bread or 1 small bread roll or 1/4 large pita bread or 1/2 small; 3 crispbreads e.g. ryvita, vita-weat (see 'treats' for other dry biscuits); 1 cup cooked rice, noodles, pasta/spaghetti, cornmeal, couscous or semolina; 1/2 cup natural muesli; 1 cup breakfast cereal or 2 wheat biscuits or 1 reduced fat breakfast bar; 1 cup cooked porridge
Water/other	1 glass water, 1 cup tea, 1 cup coffee, 1 cup hot chocolate

A MODERATE intake of a VARIETY of foods is the key to good health and environmental sustainability

Fatty fast food meal - try to limit intake to one meal a month; instead of meat pizza try seafood or vegetarian pizza or if you have battered fish/chicken try removing the batter or skin before eating (if you can resist!) or avoid ordering a side order of chips with these meals.

Deep/shallow fried food - fried food is not automatically unhealthy especially if it helps you eat foods you would not normally eat like fish or tofu or lentils/chickpeas. However, frying adds calories and if the food burns or the oil is re-used it may contain substances which increase your risk of cancer - try to limit intake to 2 meals a week. Some shallow fried foods can absorb more oil than deep fried food. The large quantities of oil used during deep frying helps to maintain high temperatures better which helps to quickly seal the surface of the food preventing more oil being absorbed into the food. Stir fried foods are not included in this category because only a small amount of oil is normally used in the wok.

Eggs - around 4 small eggs per week is great, however, if you have a cholesterol level less than 5mmol/l and if you have a low intake of animal fats you can have 1-2 eggs daily if you wish. If your cholesterol level is >7mmol/l or if you have diabetes or other heart disease risk factors (like hypertension or smoking) it is advisable to limit intake to 1-2 a week. Also, remember that eggs are a 'meat alternative' - this means that when you have an egg meal it counts as a 'serving of red meat' - which is great news for vegetarians.

Fatty cheese - this includes cheese which has more than 20% fat. Try to limit intake to 3 serves a week in order to keep intake of saturated fat low. Fatty cheese is also high in calories so may not be helpful if trying to lose weight. If you're not worried about the calories having more than three serves a week is acceptable if your intake of other fatty foods is low.

Nuts - A handful of a variety of nuts 2 to 5 times a week lowers your risk of heart disease. If you are worried about your weight, combining nuts/seeds with low calorie foods (e.g. vegetables/ salads) in meals is a good way to eat them. Having more than this weekly frequency is recommended for vegetarians or for people who avoid red meat. Instead of having that biscuit or piece of cake, try a handful of plain unroasted and unsalted nuts (nuts are sometimes roasted in saturated fat). Remember nuts are a good substitute for meat (meat alternative), so a vegetable meal with nuts counts as a 'serving of red meat'.

Poultry/Pork - around 2 serves a week is fine, however, having more than this weekly frequency has not been associated so far with any adverse health effects. This recommendation is based on the frequency of intake of long-lived populations in the Mediterranean in the 1960s. HEC nutrition experts also recommend 2 serves a week so that you leave space in your diet for other meats and meat alternatives and also on the grounds of environmental sustainability. Having less than this is also OK.

Red meat - around 3 serves a week is fine, however, having more than this weekly frequency has not been conclusively associated with any adverse health effects. HEC nutrition experts recommend 3 serves a week so that you leave space in your diet for other meats and meat alternatives and also on the grounds of environmental sustainability. Having less may increase your risk of having an inadequate intake of iron and zinc, especially if you do not eat nuts, legumes, eggs, fish, chicken on days when you do not eat red meat. Also, remember that 1 serve of red meat or meat alternative (eggs, nuts, legumes, fish, pork/chicken) is recommended daily in one's diet.

Fish - around 2 serves a week is great and will help protect you from heart disease and possibly cancer. Having more doesn't seem to be better for your health and 2 serves a week leaves room in your diet for other meats and meat alternatives and helps protect our fish stocks.

Legumes/Soy - around 3 serves a week is great. This recommendation is based on the frequency of intake of long-lived populations in the Mediterranean and in Asia. More than this weekly frequency is recommended for vegetarians or for people who avoid red meat. Legumes/soy are a 'meat alternative' - this means that when you have, for example, baked beans on toast, it counts as a 'serving of red meat'.

Alcohol - if you drink, having one standard drink per day for women and two standard drinks per day for men may be good for your heart and may help lower blood glucose levels. More than this amount and you increase your chance of developing high blood pressure, stroke and cancer. It is also recommended that you have 2 alcohol-free days per week. If you don't normally drink alcohol, you don't need to be, even if you have heart disease or conditions which increase your risk of developing heart disease. This is because the benefit of alcohol can be obtained in other ways through plant foods, grape products and enjoying food and company in other ways.

Treats/drinks - about 2 treats a day is fine and will not ruin an otherwise healthy diet. Less is good, particularly if you are trying to lose weight. Complete avoidance of treats is not recommended as this may only encourage you to 'binge' eat such foods when you get a craving.

Added margarine or oil - About 1-2 tablespoons of oil/margarine a day is fine as long as you keep other 'hidden' fats to a minimum. This can be achieved by consuming lean meats, reduced fat dairy products and by keeping to a minimum fatty fast food (like pies), snack foods (like potato crisps) and treats (like cakes and biscuits). If you are not trying to lose weight or if you are physically active you can have more than 2 tablespoons a day. If you are trying to lose weight there is no need to eliminate fat from your diet (some fat is needed for essential fatty acids) - about 1-2 tablespoons a day is fine. Rather than having the recommended amount with bread, reserve your couple of tablespoons of oil for your meals to improve the palatability of vegetables, fish and legumes. Fat can also help improve the absorption of antioxidants from the vegetables. Use a variety of margarines and oils, especially ones high in monounsaturated fat, omega 3 fats and antioxidants - such as canola, extra virgin olive oil, peanut oil and coconut milk/cream.

Please note: it is preferable to consume fat from unrefined sources, such as nuts, seeds (in bread, tahini), soy/tofu, avocado, extra virgin /cold pressed oils, fatty fish) because you will also get some nutrients and phytochemicals along with the fat.

Milk & Milk products - about 2 serves a day is great, especially if reduced in fat. However, more is OK, especially if you are female and under 30 or over 50 or post-menopausal. Try to include a variety of dairy products, especially fermented products, like yoghurt, since the bacteria they contain provide extra health benefits. Also, include some calcium fortified soy drinks, especially if you have a high cholesterol level or if you going through the menopause

Fruit and fruit juice - try to have a couple of serves daily. If you have more than this - that's good. Whole fruit (whether fresh, canned or dried) is preferable to juice because it is higher in fibre and nutrients; it tends to be more filling and has less of an impact on blood sugar levels (which is desirable especially if you have diabetes). However, it is better to have some fruit juice than no fruit at all - about 1 medium glass of 100% pure juice daily is fine. Fruit juice drinks/cordials are not counted as a fruit serve.

Vegetables - several cups of a variety of vegetables are recommended daily - the more the better. Remember to include brightly coloured vegetables (especially dark green leafy types like spinach) and onions/garlic. Easy ways to eat lots of vegetables are in soups, casseroles and stir fries.

Bread/Cereals - about 5 serves a day is fine; if you are physically active then you can eat more; if you are trying to lose weight you may wish to have 3-4 serves a day, but it is best not to eliminate this group because you need some carbohydrate to metabolise and oxidise dietary and body fat. Eat a variety of breads/cereals and include some that are wholegrain, like wholemeal bread and rolled oats. Try to consume breads/cereals with a low glycaemic index such as grainy/seedy bread (e.g. Birchen soy linseed, Taylors bread), basmati/doongara rice, breakfast cereals with bran/hi-maize/oats (e.g. hi-bran soy linseed weetbix) (see the GI table on the HEC website). Low GI foods may help you lose weight and may help you control blood sugar levels, which is important if you have glucose intolerance (the condition between health and diabetes) or diabetes.

Water/other - About 6-8 cups of water daily is great; more is fine, especially if you are physically active or if you sweat a lot. Some of this water can be consumed as tea, coffee or cocoa beverages - all of which are high in antioxidants. About 4-6 cups of tea/coffee a day is OK if you are not sensitive to caffeine. Softdrinks/cordials/energy drinks should be kept to a minimum if consumed.