

Introduction

There are literally hundreds of thousands of diets. Some are for losing weight, others for gaining weight, lowering cholesterol, living a long and healthy life, etc. The Mediterranean Diet, for example, reflects the culinary habits of southern European people.

[Picture Credit: Eating Right]

The word diet comes from Old French *diète* and Medieval Latin *dieta* meaning 'a daily food allowance'. The Latin word *diaeta* and Greek word *diaita* mean 'a way of life, a regimen' (Wikipedia).

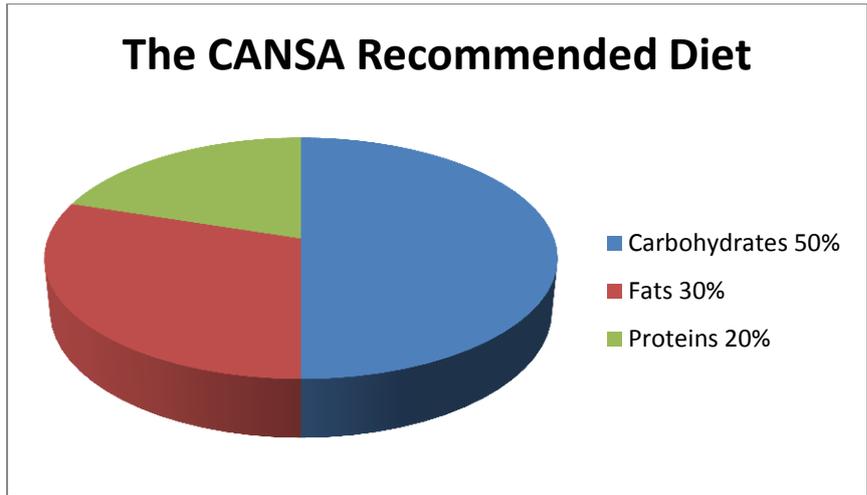


A diet can, therefore, be described as a set course of eating and drinking in which the kind and amount of food one should eat is been planned out in order to achieve weight loss or follow a certain lifestyle. Finding a diet which, at the same time, is also good for maintaining good health makes it even more difficult. Creators of different diets use different names to promote their own specific diet and this makes it even more confusing.

The CANSA Recommended Diet

The CANSA recommended diet is a balanced diet that meets the energy and nutrient requirements of an individual to maintain a healthy body weight. This balanced diet includes carbohydrate (45-65%), fat (20-35%) and protein (10-35%) in the recommended ranges and focuses on quality food choices, namely vegetables and fruit, inclusion of unrefined grains and cereals such as oats and barley, legumes such as beans and lentils, fish, low fat dairy products, lean meats and vegetable oils. Salt, added sugar and highly processed foods are limited in a healthy diet. Long-term studies have found reduced risk of chronic lifestyle diseases with this dietary pattern.

(Alhazmi, *et al.*, 2014; Rees, *et al.*, 2013; Esposito, *et al.*, 2014).



Recommended Ranges [% of total energy]
Carbohydrate: 45 to 65%
Fat: 20 to 35%
Protein: 10 to 35%

Shopping Wisely to Reduce the Risk of Cancer

Evidence shows that most diets that are protective against cancer are mainly made up from foods of plant origin (World Cancer Research Fund).

Vegetables and Fruit - eat at least five portions (at least 400g) of a variety of seasonal non-starchy vegetables and of fresh fruits (in season) every day. Aim for at least two fist-size servings of fruit and three servings of vegetables every day (Life is Beautiful).

This is best made up from a range of various amounts of seasonal non-starchy vegetables and fruits of different colours including red, green, yellow, white, purple, and orange, including tomato-based products and allium vegetables such as onions, garlic and leeks.



[Picture Credit: Non-Starchy Vegetables]

Examples of non-starchy vegetables include, but are not limited to, green leafy vegetables such as spinach and lettuce, broccoli, cauliflower, cabbage, aubergine (eggplant), and bok choy, cucumbers, peppers, squash, and tomatoes but not, for instance, potato, sweet potato, or butternut. Non-starchy roots and tubers can include carrots, Jerusalem artichokes, celeriac (celery root) and turnips.

[Picture Credit: Fruit]



Fruits include, but are not limited to, apples, bananas, berries, figs, grapes, mangoes, and melons. This also includes citrus fruits such as oranges, grapefruits, lemons, and limes. Eating fruit is preferable to drinking fruit juice because of its higher fibre content, but 100% pure fruit juice is acceptable as an occasional substitute (Naude, 2013).

Unrefined Grains and Pulses - diets that are rich in starchy foods (include, for example, grains and cereals in minimally processed forms, legumes and root vegetables), help to protect against the development of non-communicable diseases such as cancer, through a variety of mechanisms.

Examples of Starchy foods include:

Grains and cereals – including wholegrain rice, oats, pasta, breads, cereals and maize

Roots and tubers – including potatoes and sweet potatoes

Legumes – including foods such as lentils, chickpeas and beans



[Picture Credit: Starchy Foods]

Unrefined or wholegrain carbohydrates are healthy and protective against certain diseases including cancer. Refined carbohydrates on the other hand should be treated with caution. The real issue is the abundance of refined carbohydrates found in most everyday foods we eat. These, together with hidden sugars and fats, are the traps found in most processed and convenience foods (Open Letter).

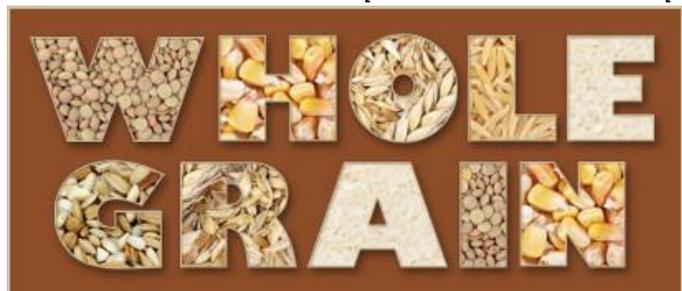
Whole grains consist of:

Whole wheat
Wild rice
Whole oats / oatmeal
Buckwheat
Corn on the cob

Frozen whole kernel maize
Popcorn
Brown rice
Whole rye
Triticale

Bulgur (cracked wheat)
Millet
Quinoa
Whole grain barley
Sorghum

Whole grains are a major source of dietary fibre and contain germ, endosperm, and bran, in contrast with refined grains that contain only the endosperm. The germ and bran contain numerous nutrients, which are removed during the refining process. In addition, whole grains are a major source of several vitamins, minerals, and phytochemicals, which have anticancer properties and could plausibly reduce the risk of colorectal cancer by several potential mechanisms (Aune, *et al.*, 2011; Vorster, 2013).



[Picture Credit: Whole Grain]

Whole grains are rich sources of fermentable carbohydrates, which are converted by the intestinal bacteria into short-chain fatty acids (which help to protect against colon cancer) in the gut. These fatty acids can reduce the activity of certain cancer-causing factors. Whole grain fibres also increase faecal bulk and bind carcinogens, which can then be speedily removed from the bowel before causing possible health problems (Life is Beautiful).

[Picture Credit: Meat Alternatives]



Meat alternatives and dairy products - eggs, soya and soya products, quinoa, legumes and pulses. Low fat dairy products consist of milk, yoghurt and lower fat cheese products. The strongest evidence shows that milk probably reduces the risk of colorectal cancer, and that diets high in calcium may increase the risk of prostate cancer (World Cancer Research Fund; Life is Beautiful).

Red meat, chicken and fish - high intake of red meat may increase the risk of colorectal and some other cancers. The term 'red meat' includes beef, pork, lamb, mutton and goat (Life is Beautiful). One should limit intake of red meat and avoid processed meat as far as possible. 'Processed meat' refers to meat preserved by smoking, curing or salting, or addition of chemical preservatives (ibid).

Important things to remember about meat:

- It should not contain any preservatives
- Always select lean cuts such as skinless chicken breast and ostrich meat
- Be careful with serving size
- Use a slotted baking pan that can collect dripping fat when grilling or baking

[Picture Credit: Processed Meats]



- Partially cook (microwave) meat before braaing it, thus limiting direct exposure of meat to high temperature of open flame or a hot metal surface for a prolonged time – it helps reduce formation of Heterocyclic Amines (HCA) and Polycyclic Aromatic Hydrocarbons (PAH) both responsible for increasing the risk of cancer.

The current recommendation is to eat two portions of fish a week (Schonfeldt, Pretorius and Hall, 2013). Fish is a good source of Omega-3. It is important to maintain a good balance between omega-3 and omega-6 fatty acids. A good balance is 2:1 (Omega-6 to Omega-3).

Some studies report on the anti-cancer properties of Omega-3 with particular reference to cancer of the breast, colon and prostate. Omega-3 rich foods include: canola oil, flaxseed oil, omega-3 eggs and oily fish such as sardines, snoek, mackerel and salmon.



[Picture Credit: Omega-3 Rich Foods]

Vegetable fats and oils - there is evidence that the amount of polyunsaturated fats, i.e. the plant and fish oils in the diet, assists in reducing the risk for breast cancer while saturated fats do not have this capability. Women consuming the most trans fats were found to have an increased incidence of breast cancer, and in men, prostate cancer (Herbst, Michael C).

Guidelines recommend watching portion size, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as oily fish, nuts, and vegetable oils like canola and extra virgin olive oils (Smuts, *et al.*, 2013).

How to Fill a Plate with Food

The best way to fill a plate with food is to use the CANSA Smart Choice Plate model as a guide.



Where possible have at least half (½) a plate of vegetables or fruit and a quarter (¼) plate of starchy vegetables and/or whole grain foods and a quarter (¼) plate of tofu, soya, legumes, eggs, lean red meat, skinless chicken or fish.

Eat for a Healthy Body Weight

Overweightness and obesity increases the risk for developing many cancers, including cancers of the breast in post-menopausal women, colon, endometrium, adenocarcinoma of

the oesophagus and kidney. Evidence is highly suggestive that obesity also increases the risk for cancers of the pancreas, gallbladder, thyroid, ovary and cervix, and for multiple myeloma, Hodgkin's Lymphoma and aggressive prostate cancer. A healthy weight depends on a person's height and body structure, so recommendations for a healthy weight are often expressed in terms of a body mass index (Life is Beautiful).

According to the World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) report there is an indirect link between energy-dense diets and cancer and the evidence indicates a *probable* or *convincing* link between body fatness and most cancer types. The WCRF/AICR suggest that wise choices of foods and drinks, and sustained physical activity and healthy body weight, protect against cancers of many sites.

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