

NUTRITIONAL GUIDELINES TO OPTIMAL HEALTH & WEIGHT MAINTENANCE

Many healthy eating patterns emphasize the importance of nutrient-dense foods. These foods provide a large amount of nutrients per calorie, and the term nutrient-dense is most often used when describing foods that specifically provide a large amount of vitamins, minerals and other beneficial compounds. Additionally, these foods are usually low in added sugars, solid fats and sodium. Classic examples of nutrient-dense foods are vegetables and fruits, which often provide ample amounts of vitamins and minerals without a large number of calories.

Seafood, eggs, nuts and seeds, lean meats and fat-free or low-fat dairy products are also included in this category. In contrast, foods in which the vitamins, minerals and other beneficial substances have been lost in processing or in which fats, sugars and starches are added are not considered nutrient-dense. Ultra-processed “junk” foods are a notable example – they provide limited amounts of vitamins and minerals but a large number of calories due to fats, starches and sugar. The recommendation to meet nutritional needs from nutrient-dense foods is particularly important because it helps individuals consume all of their required nutrients without consuming too many calories.



Calories in Nutrient-Dense Versus Current Typical Choices in the Food Groups

To stay within energy requirements while meeting nutritional needs, food choices in each food group should be in nutrient-dense forms. However, in many food groups, foods as they are typically eaten are not in nutrient-dense forms—they contain additional calories from components such as added sugars, added refined starches, solid fats, or a combination. For example, in the dairy group, nutrient-dense choices such as fat-free milk, plain fat-free yogurt, and low-fat cheese contain an average of about 80 calories per cup-equivalent. In contrast, many dairy products that are typically consumed, such as whole milk, sweetened yogurt, and regular cheese, contain almost 150 calories per cup-equivalent²⁴. Similarly, in the protein foods group, nutrient-dense (lean) choices of meats and poultry contain an average of about 50 calories per ounce-equivalent, but the higher fat choices that are typically consumed contain about 80 to 100 calories per ounce-equivalent. Grains and vegetables also are often consumed in forms that contain additional calories from added sugars or solid fats that are added in processing or preparing the food, rather than in nutrient-dense forms.



When typical instead of nutrient-dense choices are made in each food group, individuals consume extra calories when meeting their food group recommendations. Shifting from typical choices to nutrient-dense options is an important principle for maintaining calorie balance in a healthy eating pattern. A related principle, reducing the portion size of foods and beverages that are not in nutrient-dense forms, also can help to maintain calorie balance.

One set of important recommendations within the DRIs are the **Acceptable Macronutrient Distribution Ranges (AMDRs)**, which state the recommended percent of calories that adults should obtain from carbohydrates (45 to 65%), fat (20 to 35%), and protein (10 to 35%) (**Figure: Acceptable Macronutrient Distribution Ranges**).



5 GUIDELINES FOR OPTIMAL NUTRITION

1. Follow a healthy eating pattern across the lifespan.
2. Focus on variety, nutrient density, and amount.
3. Limit calories from added sugars and saturated fats and reduce sodium intake.
4. Shift to healthier food and beverage choices.
5. Support healthy eating patterns for all.

*From Dietary Guidelines for Americans 2015–2020 8th ed.
<https://health.gov/our-work/nutrition-physical-activity/dietaryguidelines/previous-dietary-guidelines/2015-2020-Dietary-Guidelines> | health.gov



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The majority of people would benefit by increasing both the type and total amount of vegetable categories they consume over time in order to follow a healthy eating pattern.

By replacing meals heavy in calories, saturated fats, or sodium, like different meats, poultry, cheeses, and snack foods, with vegetables, one can enhance their intake.

Increasing the amount of vegetables in recipes with other items, such as refined grains, that are regularly taken in excess, is one way.

Another choice is to include veggies in the majority of your meals and snacks. Another is to always request a side of vegetables or a green salad.

Generally speaking, **vegetables are incredibly nutrient-dense** and are essential to a balanced dietary regimen.

They offer a variety of **crucial nutrients, including as fibre and vitamins and minerals** that are both water-soluble and fat-soluble.

Not only is vegetable consumption in general recommended, but it is advised that a **variety of different types** are consumed.






It is more likely that a person will absorb the complete spectrum of beneficial elements contained in this food group if they eat veggies from different categories. It's crucial that vegetables can be consumed in a variety of ways, including fresh, frozen, canned, dried, or cooked. However, lower-sodium varieties of canned and frozen vegetables are suggested when fresh vegetables are not consumed. Keep the amount of butter or creamy sauces you use on vegetables to a minimum. Although preparing veggies can make them more palatable, adding a lot of calories from fat to make them more enticing can be detrimental to a person's overall health and wellbeing.



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WHOLE VS. REFINED GRAINS

Replace refined grains with whole grains

CONVENTIONAL CHOICE	HEALTHY ALTERNATIVE
White Flour 	Whole Wheat Flour 
White Rice 	Brown Rice 
Parboiled Rice 	Wild Rice 
Cream of Wheat 	Oats 
Corn Flour 	Whole-Grain Cornmeal 

Whole grains vs refined grains

Dietary fibre, iron, zinc, manganese, folate, magnesium, copper, thiamin, niacin, vitamin B6, phosphorus, selenium, riboflavin, and vitamin A are among the nutrients found in whole grains. Various whole grains have different amounts of dietary fibre. The majority of refined grains go through an enrichment procedure to restore iron and four B vitamins (thiamin, riboflavin, niacin, and folic acid). Because of this procedure, these refined grains are frequently referred to as "enriched grains". People who consume refined grains ought to choose fortified grains. Those who consume all of their grains as whole grains should also ingest some grains that have been fortified with folic acid, such as some whole-grain breakfast cereals. For women who are or could become pregnant, this is especially crucial.

By moving from refined to whole-grain versions of frequently consumed foods, such as white to 100% whole-wheat breads, white to whole-grain pasta, and white to brown rice, recommendations to consume more complex carbohydrates can be satisfied.

One strategy to increase the consumption of whole grains is to use the ingredient list on packaged foods to select foods that indicate whole grain as the first ingredient.

Limiting sweets made with refined grains, such as cakes, cookies, and pastries, which are typically sources of extra calories and are rich in added sugars and hydrogenated fats, is another strategy.

Oatmeal, brown rice, quinoa, whole-wheat bread, whole-grain cereals, and pastas are examples of items made from whole grains. The majority of white breads, refined-grain cereals and pastas, and white rice are all examples of refined-grain items.



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Plant and Animal Protein Sources

Protein intake as a whole can be found in both plant and animal sources. Dairy products, eggs, seafood, chicken, meat, soy products, nuts, seeds, and legumes are just a few of the many types of protein that are available. These foods include protein, but they also frequently have significant levels of B vitamins and a few minerals.

As a result of the various vitamins and minerals found in different protein sources, it is good to eat a diversity of protein foods. Animal proteins typically contain a greater quality & quantity of protein than plant proteins.

The highest-grade plant protein is soy protein, which has a protein quality similar to that of many animal products. The digestibility of the protein and amount of specific amino acids are just a few factors that affect the quality of the protein.

One of the most often debated subjects in sports nutrition is protein, and for good reason. It is the second-most prevalent molecule in physiological tissues that don't include fat (water being the most abundant). It is essential for workout recovery and is engaged in almost all body processes and functions. Proteins play a key role in the body's numerous processes, including nutrient transport, energy synthesis, cell signalling, and acid-base balance. These and many more factors make protein a crucial ingredient for a healthy diet.





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Protein Needs by Activity Level		
Activity Level	Type of Exercise	Protein Needs (g/kg body weight)
None	N/A	0.8 to 1.2
Light to Moderate	Cardiovascular	1.2 to 1.6
	Resistance	1.5 to 2.0
Moderate to Vigorous	Cardiovascular	1.5 to 2.0
	Resistance	1.7 to 2.2

A complete protein is a nutrient that contains all the necessary amino acids in the right amounts. With the exception of soy, which is also a complete protein, animal proteins are typically complete proteins and plant proteins are incomplete proteins.

In order to satisfy their demands for essential amino acids (EAAs), vegetarians and vegans must be mindful of eating from a range of protein sources. Rice and beans are a typical illustration of a protein source that is combined. Rice proteins are poor sources of lysine, but they are rich in cysteine and methionine. Beans have enough lysine, but they are poor sources of methionine and cysteine. Thus, they can be combined to form a complete protein in a single meal. These are therefore called complimentary proteins. If following a vegetarian or vegan diet, you can consume adequate EAAs by eating grains or seeds/nuts with beans/legumes. Other complementary proteins you can enjoy are whole wheat sources with peanut/nut butters, pasta & peas, or lentils & almonds.

Wild Salmon vs. Farmed Salmon	
	
Half Fillet (198 g) Wild Salmon	Half Fillet (198 g) Farmed Salmon
Calories: 281	Calories: 412
Protein: 39 g	Protein: 40 g
Total Fat: 13 g	Total Fat: 27 g
Saturated Fat: 1.9 g	Saturated Fat: 6 g
Omega-3s: 3.4 g	Omega-3s: 4.2 g
Omega-6s: 341 mg	Omega-6s: 1,944 mg
Cholesterol: 109 mg	Cholesterol: 109 mg
Calcium: 2.4%	Calcium: 1.8%
Iron: 9%	Iron: 4%
Magnesium: 14%	Magnesium: 13%
Phosphorus: 40%	Phosphorus: 48%
Potassium: 28%	Potassium: 21%
Sodium: 3.6%	Sodium: 4.9%
Zinc: 9%	Zinc: 5%
Vitamin C: 0%	Vitamin C: 13%



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Dairy Products

Milk, yoghurt, and cheese are examples of dairy products that assist in supplying a variety of nutrients. Calcium, phosphorus, vitamin A, vitamin D (in goods fortified with vitamin D), riboflavin, vitamin B12, protein, potassium, zinc, choline, magnesium, and selenium are all important nutrients found in dairy products. Numerous important aspects of physical well-being, particularly bone health, depend on these minerals. Whey and casein, which are found in dairy products, are among the highest-quality proteins available in the diet.

Fat-free and low-fat (1%) dairy products, such as milk, yoghurt, cheese, and fortified soy drinks (often referred to as "soymilk"), are part of healthy eating regimens. Due to their nutrient makeup and application, soy beverages fortified with calcium, vitamin A, and vitamin D are classified as belonging to the dairy group.

Dairy products that are fat-free or low-fat (1%) offer the same nutrients as higher-fat alternatives like 2 percent and whole milk and ordinary cheese, but with less fat (and consequently fewer calories). In comparison to cheese, fat-free or low-fat milk and yoghurt are higher in potassium, vitamin A, and vitamin D and lower in sodium and saturated fat. Therefore, consuming more fat-free or low-fat milk, yoghurt, and cheese while consuming less cheese would result in lower intakes of saturated fats and sodium and higher intakes of potassium, vitamin A, and vitamin D from the dairy group. Dairy products with minimal or no lactose content are available for those who are lactose intolerant. Those who can't or don't want to consume dairy products should eat a variety of foods that will provide the necessary vitamins and nutrients found in dairy products.



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Underconsumed Essential Nutrients

Even though the majority of people get enough of most nutrients, many people get less of particular nutrients than what is considered to be an adequate intake or the estimated average requirement. A, D, E, and C vitamins, magnesium, calcium, dietary fibre, potassium, and choline are a few of them. Women between the ages of 19 and 50, as well as teenage girls, generally ingest too little iron. Low intakes of the food groups—vegetables, fruits, whole grains, and dairy—which include these nutrients tend to occur in the context of unhealthy overall eating patterns. The intake of these underconsumed nutrients can be shifted to be more in line with recommendations by increasing the consumption of these food groups..

Of the underconsumed nutrients, **calcium, potassium, dietary fiber,** and **vitamin D** are considered nutrients of public health concern because low intakes are associated with health concerns. For young children, women capable of becoming pregnant, and women who are pregnant, low intake of iron also is of public health concern. Shift to eating more vegetables, fruits, whole grains, and dairy to increase intake of nutrients of public health concern. Low intakes of dietary fiber are due to low intakes of vegetables, fruits, and whole grains. Low intakes of potassium are due to low intakes of vegetables, fruits, and dairy. Low intakes of calcium are due to low intakes of dairy. If a healthy eating pattern is consumed, amounts of calcium and dietary fiber will meet recommendations. Amounts of potassium will increase but depending on food choices may not meet the Adequate Intake recommendation. To increase potassium, focus on food choices with the most potassium. Food Sources of Potassium, such as white potatoes, beet greens, white beans, plain yogurt, and sweet potato. Vitamin D is unique in that sunlight on the skin enables the body to make vitamin D. Recommendations for vitamin D assume minimum sun exposure. Strategies to achieve higher levels of intake of dietary vitamin D include consuming seafood with higher amounts of vitamin D, such as salmon, herring, mackerel, and tuna, and more foods fortified with vitamin D, especially fluid milk, soy beverage (soymilk), yogurt, orange juice, and breakfast cereals. In some cases, taking a vitamin D supplement may be appropriate, especially when sunshine exposure is limited due to climate or the use of sunscreen.

Substantial numbers of women who are capable of becoming pregnant, including adolescent girls, are at risk of iron deficiency anemia due to low intakes of iron. To improve iron status, women and adolescent girls should consume foods containing heme iron, such as lean meats, poultry, and seafood, which is more readily absorbed by the body. Additional iron sources include legumes (beans and peas) and dark-green vegetables, as well as foods enriched or fortified with iron, such as many breads and ready-to-eat cereals. Absorption of iron from non-heme sources is enhanced by consuming them along with vitamin C-rich foods. Women who are pregnant are advised to take an iron supplement when recommended by an obstetrician or other health care provider.



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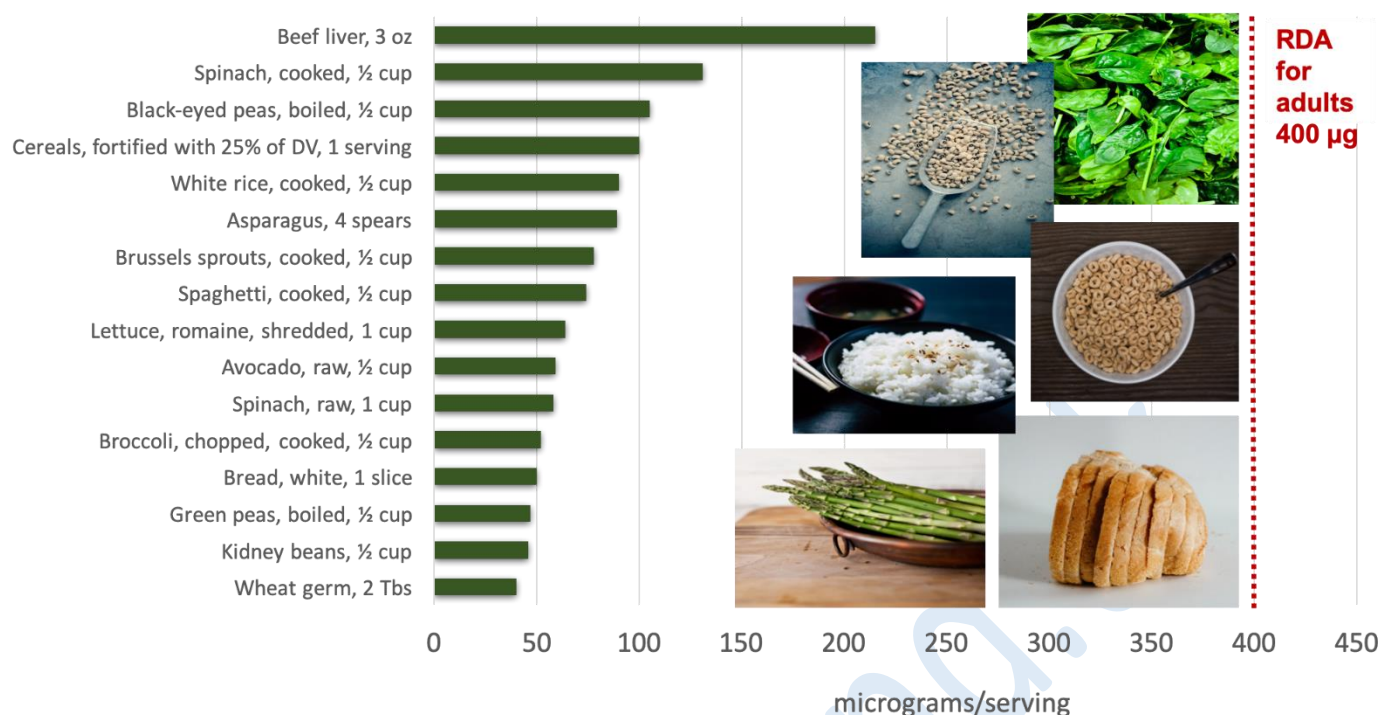
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Folic Acid for Women Of Childbearing Years

The recommended daily allowances for folate are centred on preventing folate deficiency rather than avoiding neural tube abnormalities. The recommended daily allowance (RDA) for adults women is 400 micrograms (mcg) of dietary folate equivalents, <https://www.nhs.uk/pregnancy/keeping-well/vitamins-supplements-and-nutrition/> and for pregnant women, it is 600 mcg DFE per day from all sources. In the United States, adding folic acid to enriched grain products has proved effective in lowering the prevalence of neural tube abnormalities. Therefore, it is recommended that all women who are able to become pregnant take 400 mcg of synthetic folic acid daily from fortified meals and/or supplements to prevent birth abnormalities.

The intake of synthetic folic acid is advised in addition to the levels of dietary folate present in a balanced eating pattern. Artificial folic acid is added to all enhanced cereals. Beans and peas, oranges and orange juice, and dark-green leafy vegetables like spinach and mustard greens are all good sources of the vitamin folate.

Dietary Sources of Folate



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Foods to Limit

The Dietary Guidelines also offer suggestions for which food groups to avoid, in addition to those to highlight. Particularly recommended are dietary restrictions for trans and saturated fats, added sweets, and sodium.

This list may be used as a jumping off point for changing your diet, much as the suggestions for foods to prioritise. The advice to reduce additional fats and sugars may be especially crucial if you want to improve both your general health and body composition.

Trans Fats

Small amounts of a certain form of fatty acid known as trans fats can also be created during the hydrogenation process, which is used to manufacture food. Partially hydrogenated oils, such as those in various margarines, snack foods, and desserts, contain trans fats. According to research, consuming more trans fats boosts LDL cholesterol and increasing the risk of heart disease. Trans fats have been considerably reduced or completely eliminated from the food supply due to their harmful consequences. However, trans fats are still present in some processed meals.

Saturated Fats

Fats with a high concentration of saturated fatty acids are referred to as saturated fats (Figure: Fatty Acid Profiles of Common Fats and Oils). The majority of these lipids are solid at normal temperature. Meat, cheese, and solid fats are the main sources of saturated fat.

Research showing that swapping saturated fats for unsaturated fats lowers blood cholesterol and lowers the risk of heart attacks and fatalities from heart disease is the justification for the consumption restriction of saturated fats (Hooper et al., 2015; Sacks et al., 2017). Changes in lifestyle

that can lower the risk of heart disease or mortality are extremely important for the public's health because heart disease is the leading cause of death in the world (World Health Organization). Overall, because of links and widespread overconsumption of saturated fat,

Added Sugar

To make dishes and beverages sweeter, sugars, such as syrups and table sugar, are added. However, added sugars frequently don't offer extra nutrients. This indicates that diets with significant levels of added sugar frequently have a high energy density and a low nutritional density.

It's significant to note that some sugars do naturally present in nutrient-dense foods like fruits and dairy. The recommendations place an emphasis on including these dietary groups while restricting those that have processed sugar added to them. This recommendation is due to the difference in nutrient density between foods like fruit or dairy and foods with added sugar (Infographic: Sugar Content Comparison – Processed Beverages).

Foods with added sugars frequently have comparatively low levels of other nutrients, such as vitamins and minerals, compared to fruits and dairy.

A 16-ounce bottle of Coke, for instance, can have 50 grammes (200 calories) of added sugar. This single bottle of Coke contains the maximum recommended amount of added sugar for someone who consumes 2,000 calories per day, accounting for 10% of their daily caloric intake.

Foods containing significant amounts of added sugar are frequently quite tasty, making it easy to consume excessive amounts. Contrary to less-processed whole meals like fruit, people typically find it much easier to overeat foods with added sugars. Because of this, it is important to become aware if you are susceptible to overindulging in foods with added sugars.

The guidelines cite research showing that eating patterns high in added sugar are linked to a higher risk of heart disease, obesity, diabetes, and some types of cancer. This association may be caused by a collection of unhealthy behaviours and increased adiposity due to increased caloric intake. Added sugars are also likely to contribute to excessive calorie intake overall (a condition of being severely overweight or obese).

Due to these factors, raising your awareness of your added sugar intake may help you achieve your objective of optimising your body composition as well as long-term health, vitality, and well-being.

Sugar Comparison

How many calories from sugar are in these drinks?



PROCESSED DRINK

SUGAR CONTENT

PERCENT OF DAILY CALORIES

Based on a diet of 2,000 calories per day



=



=

16oz of Soda

50 g of Sugar

10%

200 calories from sugar



=



=

12oz of Orange Juice

32g of Sugar

5%

128 calories from sugar



=



=

16oz of fast food Vanilla Milkshake

72g of Sugar

14%

288 calories from sugar



=



=

20oz of Sports Drink

36g of Sugar

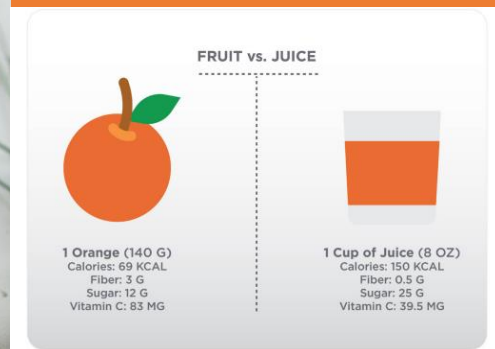
7%

144 calories from sugar

Individuals have many potential options for reducing the intake of added sugars.

Strategies include:

- choosing beverages with no added sugars, such as water, in place of sugar-sweetened beverages
- reducing portions of sugar-sweetened beverages, drinking these beverages less often
- selecting beverages low in added sugars
- limiting or decreasing portion sizes of grain-based and dairy desserts and sweet snacks
- choosing unsweetened or no-sugar added versions of canned fruit & applesauce
- choosing unsweetened yogurt



The Eatwell Guide

Helping you eat a healthy, balanced diet



Get started now

Eating well and having a healthy lifestyle can help us feel our best – and make a big difference to our long-term health. So why not make a change today?

The Eatwell Guide shows the proportions in which different types of foods are needed to have a well-balanced and healthy diet. The proportions shown are representative of your food consumption over the period of a day or even a week, not necessarily each meal time.

How can the Eatwell Guide help?

The Eatwell Guide shows the different types of foods and drinks we should consume – and in what proportions – to have a healthy, balanced diet.

The Eatwell Guide shows the proportions of the main food groups that form a healthy, balanced diet:

- Eat at least 5 portions of a variety of fruit and vegetables every day
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible
- Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options
- Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily)
- Choose unsaturated oils and spreads and eat in small amounts
- Drink 6-8 cups/glasses of fluid a day

If consuming foods and drinks high in fat, salt or sugar have these less often and in small amounts.

8 Suggestions for Healthy Eating

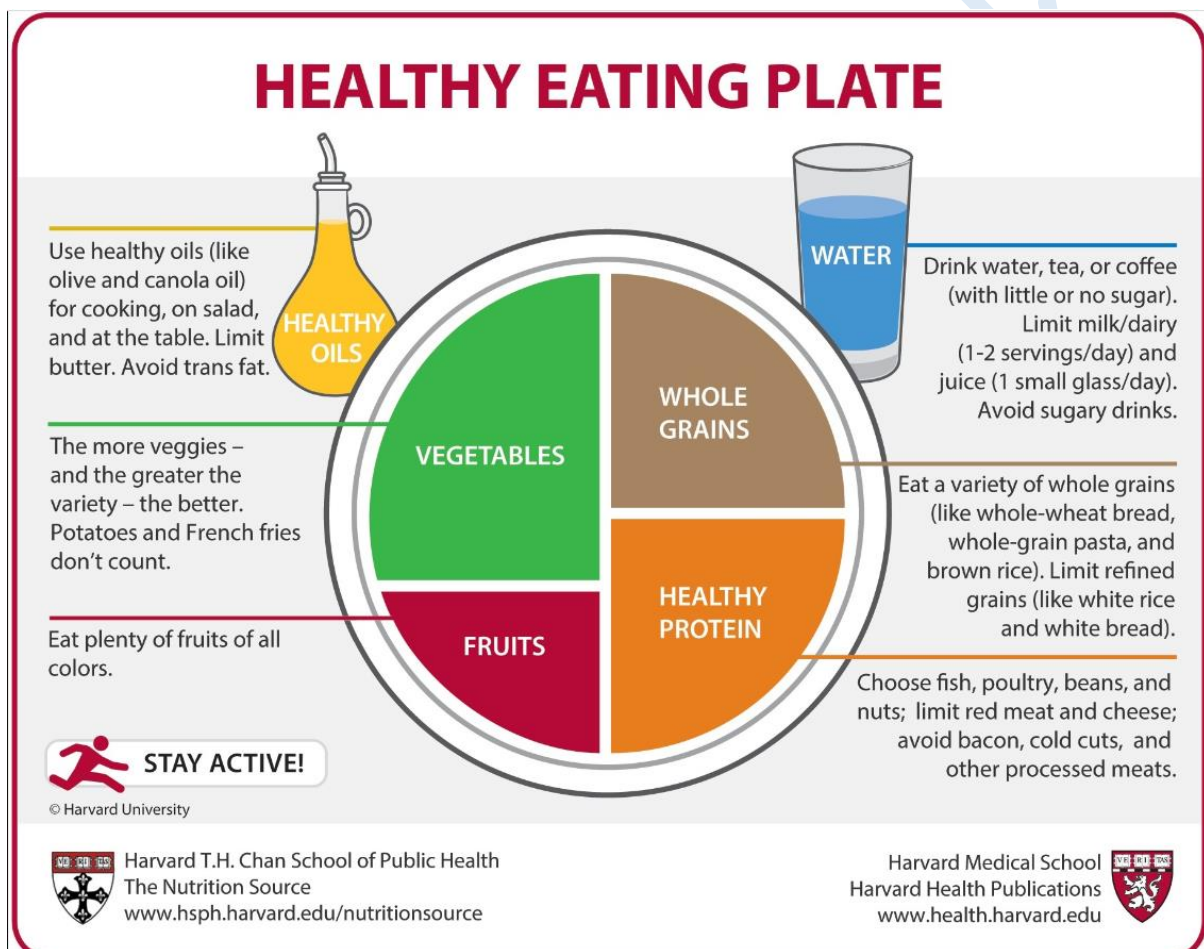
1. Each meal should have a healthy balance of lean proteins, fruits, vegetables, whole-grain carbohydrates, and a healthy fat. Choose daily low-fat dairy options.
2. Consume fruit and vegetables in at least 5 servings per day.
3. Consume extra fish by including one to two servings per week of white fish and one meal containing an oily fish (such as salmon) for the best nutrient intake.
4. Sugar and saturated fat should be reduced. Men should consume no more than 9 teaspoons of added sugar per day, while women should consume no more than 6 teaspoons.
5. Consume less salt—for adults, no more than 6 milligrams daily.
6. Get moving and keep your weight in check. Engage in daily heart-pumping cardiovascular exercise for 30 minutes each day (can be broken up into 10 minute periods).
7. Avoid getting thirsty. Sip water throughout the day.



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YOU DON'T HAVE TO WEIGH ALL YOUR FOOD TO MAINTAIN HEALTHY
FOOD MANAGEMENT & WEIGHT.

VISUAL GUIDES CAN BE USED TO KEEP PORTION SIZES APPROPRIATE.



Using MyPlate as a Guide To Support Healthy Eating Patterns

The *Dietary Guidelines* is developed and written for a professional audience. Therefore, its translation into actionable consumer messages and resources is crucial to help individuals, families, and communities achieve healthy eating patterns. MyPlate is one such example (Figure 3-2). MyPlate is used by professionals across multiple sectors to help individuals become more aware of and educated about making healthy food and beverage choices over time. Created to be used in various settings and to be adaptable to the needs of specific population groups, the MyPlate symbol and its supporting consumer resources at ChooseMyPlate.gov bring together the key elements of healthy eating patterns, translating the *Dietary Guidelines* into key consumer messages that are used in educational materials and tools for the public.

Figure 3-2.
Implementation of the *Dietary Guidelines* Through MyPlate

MyPlate, MyWins.

Find your healthy eating style and maintain it for a lifetime. This means:



Everything
you eat and
drink over
time matters.













The right mix
can help you
be healthier
in the future.



Start with small changes to make healthier choices you can enjoy.

Visit ChooseMyPlate.gov for more tips, tools, and information.

PORTION SIZE “HANDS” GUIDE

<p>PROTEIN PORTIONS</p> <p><small>*A typical steak or chicken breast is usually at least 2 “hand portions”</small></p> <p>Open palm = 3 ounces (85g)</p>  <hr/> <p>Two palms = 6 ounces (170g)</p> 	<p>CARBOHYDRATE PORTIONS</p> <p>Cupped palm = 1/3 cup (43g)</p>  <hr/> <p>Two cupped palms = 2/3 - 1 cup (85-128g)</p> 	<p>FRUIT AND VEGETABLE PORTIONS</p> <p>Closed fist = 1 cup vegetables (128g)/1 piece fruit</p>  <hr/> <p>Two fists = 2 cups vegetables (256g)/2 pieces fruit</p> 
<p>SOLID FAT PORTIONS</p> <p>Whole thumb = 1.5 - 2 Tablespoons (21-28g)</p>  <hr/> <p>Two whole thumbs = 3 - 4 Tablespoons (43-57g)</p> 	<p>OIL PORTIONS</p> <p>One fingertip = 1 teaspoon (4g)</p>  <hr/> <p>Two fingertips = 2 teaspoons (8g)</p>  <hr/> <p>1/2 Thumb = 1 Tablespoon (14g)</p> 	<p>DAIRY PORTIONS</p> <p>One finger length = 1 ounce of cheese (28 grams)</p>  <hr/> <p>One fist = 1 cup of milk/milk alternative (245g)</p> 

MuscleBolt

COMMON SERVING SIZES

A TEASPOON

4 grams (e.g., a serving of oil) = 1 drop



A TABLESPOON

14 grams (e.g., a serving of condiment) = equals 1 bottle cap or 1 poker chip



A QUARTER CUP

80 grams (e.g., a serving of nuts or dried fruit) = one large egg



HALF A CUP

170 grams (e.g., a serving of cooked rice) = one ice hockey puck or one tennis ball



A WHOLE CUP

240 grams (e.g., a serving of fruit or vegetables) = one baseball



THREE OUNCES

85 grams (e.g., a portion of protein/meat for a small individual) = one deck of cards or the cover area of a smartphone



FOUR OR FIVE OUNCES

113-142 grams (e.g., protein portion for an active/larger individual) = a regular smartphone



EIGHT OR NINE OUNCES

227-255 grams (e.g., many restaurant portions of burgers and fish) = one large smartphone



Portion Recommendations in the UK	
Food Group/Food	Portion Size (Visual Approximation)
Protein	
Meat/Poultry	60–90 grams (size of a deck of cards)
Fish	140 grams (palm of hand)
Eggs	2 eggs
Beans/Lentils/Chickpeas	150 grams (4 tablespoons)
Soy Protein (Tofu/Tempeh)	100 grams (4 tablespoons)
Nuts/Nut Butter	30 grams (1 tablespoon)
Carbohydrates	
Bread	1 medium slice
Pasta/Rice (Cooked)	2–3 tablespoons
Potatoes (Cooked)	1 medium baked potato or 2 egg-sized new potatoes (boiled)
Cold Cereal	3 tablespoons
Hot Cereal (Uncooked)	3 tablespoons
Vegetables	
Peas/Carrots/Mixed Vegetables/Corn	80 grams (3 heaping tablespoons)
Tomatos/Peppers	80 grams (1/2 pepper or whole tomato)
Fruit	
Berries/Grapes	80 grams (small handful or 10–12 grapes)
Apples/Pears/Bananas/Oranges	80 grams (1 medium-sized fruit)
Small Fruit (Kiwis/Plums/Apricots)	80 grams (2 pieces of fruit)
Dairy	
Milk (or Non-Dairy Alternate)	200 milliliters (1 glass)
Yogurt	125 grams (3 tablespoons)
Cheese (Hard)	30 grams (matchbox- or chess-piece size)
Oils/Fats	
Oil	3 grams (1 teaspoon)
Solid Fat (Butter/Spreadable Butter)	5 grams (1 teaspoon)

REFERENCES:

Dietary Guidelines for Americans 2015-2020 8th ed. [https://health.gov/our-work/nutrition-physical-activity/dietaryguidelines/previous-dietary-guidelines/2015-2020 Dietary Guidelines | health.gov](https://health.gov/our-work/nutrition-physical-activity/dietaryguidelines/previous-dietary-guidelines/2015-2020-Dietary-Guidelines-|_health.gov)

[The Eatwell Guide - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[Eating a balanced diet - NHS \(www.nhs.uk\)](http://www.nhs.uk)

NASM CNC Textbook-07

RESOURCES:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/528193/Eatwell_guide_colour.pdf

[Dietary Guidelines for Americans, 2020-2025](https://health.gov/our-work/nutrition-physical-activity/dietaryguidelines/previous-dietary-guidelines/2015-2020-Dietary-Guidelines-|_health.gov)



LET'S GET STARTED!!

You're focused, determined and committed to your new goals - so now what? Let's put it all together and give you some tangible information so you can jumpstart this transformation already!

Below is a list of all the best nutrient-dense choices in each of the main macronutrient areas - macronutrients are the 3 main building blocks of all meals. They are Carbohydrates (which includes grains, breads, vegetables and fruits), Proteins and Fats.

First you will see a list of all the best choices for each macro, followed with the less nutritious options to avoid (except as the occasional treat).

I've also included a short food shopping list to get you started, to make life even easier as you start. Enjoy yourself, and look for dishes that use the wholesome ingredients listed below as well as baking, grilling, air-frying, and light sautéing. Cheers to that!

Always keep in mind that modest steps will get you closer to your goals as you work toward them. Mistakes will be made; the key thing is to pick yourself up, dust yourself off, and keep making those healthy decisions. This is where real transformation takes place, with consistency and commitment to your diet, daily exercise, and setting aside time for rest and recovery. To become the finest version of yourself, you already possess everything necessary.



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I'll put every food that belongs in your shopping basket as well as those that don't in the list below. This is not to say that you can't indulge in a cheat meal every now and again, but adhering to the healthier options will enable you to achieve your goals sooner.



Good Sources of Protein:

- Eggs—An excellent ration is to have 1 whole egg for every 3 whites.
- Liquid Egg Whites—These are a convenient option for increasing your protein content without wasting egg yolks.
- Skinless Chicken Breast or Cutlets—Lean, inexpensive, high quality protein; staple of every diet.
- Lean Turkey Mince— Lean high quality protein. Best option is lean turkey breast. Turkey thigh is also okay here, but the fat content will be higher so be sure to account for this in your daily calorie budget.
- Top Round Steak—Lean cut of meat. Has more fat than chicken but great source of meat. Definitely something you want to have in the off-season and can be eaten while dieting in moderation.
- Filet Mignon—Tasty lean cut of meat. Expensive but worth it every once in a while.
- Bison Meat—Lean red meat and a healthy alternative to beef.

- Flounder—Inexpensive lean fish.
- Cod—Inexpensive lean fish.
- Pollock—Lean fish.
- Wild Salmon—Healthy fatty fish. Wild caught salmon is more expensive, but worth the purchase to avoid excess mercury and calories. The Omega -3 to 6 ratios are much better in wild caught salmon as well.
- Canned Tuna – Higher in sodium, so you may want to choose lower sodium varieties if your dietary needs require low-sodium choices. Pick ones packed in water, not oil and choose SkipJack tuna to avoid excess mercury levels.
- Bacon Medallions (lowfat bacon) – This bacon is a lean meat and can be enjoyed as a healthy protein option. Choosing Nitrate-free options is always a better choice.
- Turkey Bacon—Leaner than regular bacon, but also contains some additives.
- Lean Beef Mince—Make sure to purchase the 5% fat, lean beef versions.
- Nitrate-free Deli meat – a convenient, nitrate-free source of protein, but be aware of the high sodium content and limit these foods in the diet.
- Cottage Cheese—Slow digesting form of protein. Great for having when you have to go a long time in-between meals and also excellent to have before bed.
- Pork Tenderloin—Inexpensive lean protein.
- Wild Sea Bass—Lean high quality protein. Expensive side.
- Wild Swordfish—Lean high quality protein. Expensive.

Protein To AVOID or to limit to the occasional treat:

- Chicken with skin-on—The skin just adds extra fat that you don't need.
- Breaded and/or Fried Chicken—The bread crumbs adds simple carbs and trans-fats that you want to avoid in your diet.
- Deli Meat— Deli meats are quite processed, containing a lot of sodium and preservatives, like **nitrites and nitrates**. These chemical compounds are not present in fresh meat and have been associated as contributors to various cancers.
- Bacon—Very high in fats. For the bacon lovers, it can be an okay food for the occasional treat. Purchase nitrate-free if possible.
- Farmed Fish—Have a poor omega-3s to omega-6 ratio compared to the wild fish and higher amounts of harmful mercury.
- Fatty Ground Beef—Any ground beef that is higher than 15% is not beneficial for cardiovascular and cholesterol health. They do make tasty burgers or meatballs but that amount of fat is just too high to have on a regular basis.

- **Fatty Cuts of Red Meat**— If the steak is full of marbling, avoid. If you can trim any outside fat and the inside is red without much marbling, than it will be lower in fats.



Good Sources Of Carbohydrates

Oatmeal—The Old-Fashioned Oats variety (slow-cooking), NOT the quick oats. Quick oats are a simple carb and will raise your blood sugar. Old-fashioned oats take less than a minute in the microwave or stove-top, so are actually a very quick, convenient perfect go-to for breakfast. Make wonderful overnight oat recipes too.

Steel Cut Oats—Similar to oatmeal. Slow digesting carb.

Brown Rice – Another excellent slow digesting carbohydrate.

White Rice—This is a faster digesting carb! Enjoy this carbohydrate source as your pre and post workout meals, but stick with a slower digesting carb such as brown rice for the rest of your meals. Cream of Rice and Cream Of Wheat are both quick digesting carbs. Like white rice, keep these foods for breakfast or pre and post workout.

Quinoa – is often described as a superfood. Quinoa is packed with protein, fiber and various vitamins and minerals. It is also gluten-free and is recommended for people who are on a gluten-free diet.

Fruit—All fruits are great choices! Fruits contain fiber, vitamins and minerals, but some are lower in sugar and carbs and so are more ideal for those with fat-loss goals – fruits like blueberries, raspberries, blackberries and strawberries – these fruits are all very high in anti-oxidants as well. Choose a banana for a pre and post-workout superstar. Bananas are high in potassium (wonderful for muscle contractions) and because of the fast acting sugars, will support your exercise activities. Potassium is a mineral that, once inside the body, operates as an electrolyte and becomes essential to the maintenance of proper neural and muscle function. Bananas also give you magnesium and calcium. That's three out of four nutrients you need to ease muscle cramps tucked under that

yellow peel. No wonder bananas are a popular, quick choice for cramp relief. Like bananas, sweet potatoes give you potassium, calcium, and magnesium.

Vegetables—Vegetables are an all around excellent Choose a balance of both fibrous and starchy vegetables in a large variety of colors. Eat the rainbow! For fat loss benefits, you may benefit from choosing mostly the fibrous type vegetables in your meals (all leafy green vegetables, zucchini, tomatoes, cauliflower, broccoli, green beans, etc) and keep the starchy veg (potatoes, carrots, corn) to mornings and before and after your workouts (when you're body needs the simple carbohydrates). ALL vegetables are an excellent source of fiber, vitamins and important micro-nutrients, so try to have some in almost every meal.

Sweet Potatoes/Yams—A delicious and slow digesting carb. Add a little Splenda and you will be in heaven. Like bananas, sweet potatoes give you potassium, calcium, and magnesium.

Whole Wheat Bread/Ezekial Bread— Ezekiel bread or a similar Sprouted Grain Bread is another stellar nutritious food. Sprouting the grains make the bread more digestible and beneficial for gut health. It also does not impact your blood sugar and is a wonderful slow digesting carb. A good sourdough whole wheat/whole meal variety is nice occasionally as well.

Ezekial Cereals/High Protein, Low Sugar Granolas – Ezekial cereal is again an excellent morning carbohydrate source. High protein granolas are good, but make sure to choose LOW SUGAR and lower fat varieties. Because this is a HIGH CALORIE food, be sure to eat in SMALL quantities, especially if fat loss is your goal.

Honey/Coconut sugar – this one is NOT necessary, but they are better choices when sweetener is needed. They contain some health benefits and some studies indicate that they do not raise blood sugar as much as table sugar. EAT VERY SPARINGLY. Some people use artificial sweeteners as well such as stevia, erythritol, and monkfruit sweetener.

Carbohydrates to AVOID or LIMIT to the occasional treat

Cereal—Most cereals today are loaded with sugar. Oatmeal is a better option. Add some fresh berries, homemade fruit compote and cinnamon. You can also add a bit of stevia based sweetener or honey if needed. Better yet, add a scoop of protein powder and hit your morning protein goals at the same time. Oatmeal is a much healthier carbohydrate choice..

Candy—Loaded with tremendous amounts of sugar and much more than the daily allowance. Will cause a sugar spike and crash as well as continued cravings for junk foods.

Chips—Loaded with simple carbs and bad fats. Will cause a sugar spike and crash as well as continued cravings for junk foods.

Ice Cream—Loaded with sugar and bad fats. Make your own frozen yogurt or choose higher protein, low calorie options such as HALOTOP or OPPO brand ice creams for the occasional treat.

Soda—Full of pure corn syrups, sugars and artificial chemicals. Work at eliminating entirely from your diet. Diet soda is a bit better as far as sugar and empty calories, but still contains artificial sweeteners which some studies show a link to weight gain.

Juice—Juice is very high in sugars (fruit sugar still behaves the same way in your body as table sugar) and has none of the beneficial fiber. Eat the entire fruit which has all the vitamins, nutrients, fiber and is good for you.



Good Sources Of Fats

Extra Virgin Olive Oil – the Gold Standard of cooking oils and the main staple for both eating and cooking. Purchase in dark bottles only (Exposure to light will cause the oil to oxidize). Extra Virgin Olive Oils have substantially higher amounts of polyphenols than refined olive oils. High-polyphenol olive oil with protecting heart health, partially by reducing blood pressure, blood sugar and high cholesterol levels

Extra Virgin Olive Oil reduces inflammation, reduces oxidation of LDL (bad) cholesterol, improves blood vessel health, lowers blood pressure, and helps in managing blood clotting (preventative to heart attacks & strokes). In addition to its impressive antioxidant content, extra virgin olive oil is loaded with monounsaturated fatty acids. Extra virgin olive oil also contains a good amount of vitamins E and K in each serving. Vitamin E is an essential nutrient that doubles as an antioxidant, while vitamin K plays a key role in bone health, blood clotting, heart health, and more.

Flaxseed Oil—Great source of fat. Great to add to dishes.

[Fish Oil](#)—Should be included as a staple source of healthy fats. Cod Liver Oil is very high in Omega -3 essential fatty acids, lowers inflammation all over the body, reduces pain associated with arthritis, maintaining bone density, supports a healthy immune system, as well as other health benefits.

Almond Butter/Cashew Butter—Derived from the nuts but a good source of fat.

Almonds—Great source of fat and small amount of protein.

Pecans—Great source of fat and small amount of protein.

Walnuts—Great source of fat and small amount of protein.

Cashews—Great source of fat and small amount of protein.

Pistachios- Great source of fat and small amount of protein.

Macadamia nuts- Great source of fat and small amount of protein.

Natural Peanut Butter—Not processed. Great source of fat and some protein. Love adding this to my shakes during the day.

Avocados— Avocados are an excellent source of monounsaturated fat and vitamin E, and are a good source of folate. They also supply more soluble fibre than other fruit and contain a number of useful minerals including iron, copper and potassium.

Coconut Oil - Virgin coconut oil is deemed to be higher quality than refined coconut oil and is said to be richer in [antioxidant polyphenols](#) as well as nutrients like [vitamin E](#). More research is needed to confirm the effects of daily coconut oil use.

Fats to AVOID or limit to the occasional treat

Any Fried Foods—I know that the government is making restaurants get rid of making saturated and trans fats in fried foods but you should still just stay away from fried food.

Margarine—been made from partially hydrogenated vegetable oil since the invention of hydrogenation. Partially hydrogenated fats, unfortunately, cause artificial trans fats that have serious health consequences. Your risk of heart disease, death as a result of heart disease, heart attack, and stroke is increased by trans fats.

Vegetable Shortening— Shortening has been made from partially hydrogenated vegetable oil since the invention of hydrogenation. Partially hydrogenated fats, unfortunately, cause artificial trans fats that have serious health consequences. Your risk of heart disease, death as a result of heart disease, heart attack, and stroke is increased by trans fats.

GROCERY LIST

Now that are armed with good nutrition knowledge, you now know how to separate the facts from the fiction and choose the BEST foods that will benefit your health, vitality and goals. Here is a shopping list to get you started. If there are foods that you don't like in the list below, you now have the knowledge of the foods that you can substitute.

Proteins

Eggs

Egg whites

Chicken Breast

Turkey Mince

Cottage Cheese

Greek Yogurt (Non-fat or 2% fat – I prefer the 2%. I find that the 2% is less tart than the non-fat and so does not need any added sugars).

Carbs

Old Fashioned Oats

Sweet Potatoes

Brown Rice

Whole Grain Bread

Fruit

Apples

Blueberries

Raspberries

Bananas

Lemons and Limes (for seasoning foods and drinking water)

Frozen mixed berries

Vegetables

Spinach

Broccoli

Onions

Sweet Potatoes

Green Beans

Tomatoes

Fats

Extra Virgin Olive Oil in dark bottle

Fish Oil/Cod Liver Oil—You can get the pill form if you like

Almonds

Natural Peanut Butter

Avocado

Take-Home Points

A healthy diet can be started with these foods. It should not be used as a weekly list because it is not an exhaustive list. It's crucial to have variety in your diet, so select a rainbow of fruits and veggies, various lean protein sources, and dairy products. There is place for the occasional sweet treat or salty fun food when you consume a diet high in nutrients for the most of your meals. Enjoying life is what it's all about, and balance is key.

To attain optimum nutrition and the maximum possible level of consistency, choose from the healthy foods listed above, adhere to your personalised calorie budget, look into healthy substitutes for your favourite meals and desserts, and stay consistent. You can achieve anything you put your mind to – consistency is the secret ingredient.

