



NUTRITION

1. Describe the food guide pyramid. List the number of servings required from each group each day. Why is it important to eat a balanced diet?

The pyramid is an outline of what to eat each day. It is not a rigid prescription, but a general guide that lets us choose a healthful diet that is right. The pyramid calls for eating a variety of foods to get the nutrients we need and at the same time the right amount of calories to maintain or improve our weight.

The Food Guide Pyramid

A Guide to Daily Food Choices

Fats, Oils, & Sweets
USE SPARINGLY

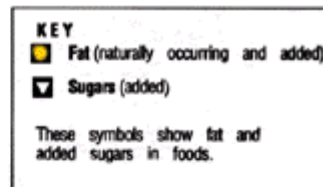
Milk, Yogurt,
& Cheese
Group
2-3 SERVINGS

Vegetable
Group
3-5 SERVINGS

Meat, Poultry, Fish,
Dry Beans, Eggs,
& Nuts Group
2-3 SERVINGS

Fruit
Group
2-4 SERVINGS

Bread, Cereal,
Rice, & Pasta
Group
6-11
SERVINGS



Eating a balanced diet gives our body the nutrients needed for good health. Everyday, our body renews itself, building new muscles, bone, skin and blood. The food we eat should provide the building blocks for these new tissues.

2. Explain the difference between the following:

- Lacto-ovo vegetarian- A person who eats no meat, fish, fowl or animal by products (such as gelatine) or products containing them. However, eats eggs and dairy products.
- Ovo vegetarian- A person who eats no meat, fish, fowl or animal by products (such as gelatine) or dairy products, but does eat eggs.

- Vegan vegetarian- A person who eats no animal products at all (no meat, fish, fowl, dairy, eggs, or other derived ingredients such as honey). Often vegans do not wear or use products derived from animals such as leather.

3. Plan a two-day menu, containing a balanced lacto-ovo vegetarian diet utilizing the food guide pyramid.

Day 1

Breakfast: Wholemeal bread, scrambled eggs, oatmeal porridge and banana

Snack: Mixed nuts and apple

Lunch: Plain rice, mixed vegetables and fresh fruit juice

Dessert: Yogurt and mixed fruits

Supper: Veggie-burger sandwich and fruit punch

Day 2

Breakfast: Cornmeal porridge, croissant, buttered mushrooms, baked bend veggie sausage

Snack: cashew nuts and orange

Lunch: Veggie lasagne, vegetables, fruit juice and fresh salad

Dessert: Carrot cake and soy ice-cream

Supper: Lentils soup, bread Caesar salad

4. What is another name for:

- **Vitamin B1** - Thiamine
- **Vitamin B2** - Riboflavin

5. List at least three significant food sources of the following nutrients:

- **Vitamin C** - oranges, tomatoes, strawberries
- **Vitamin A** - cod-liver oil, carrots, squash butternut
- **Vitamin B1** - lentils, brazil nuts, pecans
- **Vitamin B2** - salmon, almonds, asparagus
- **Iron** - spinach, fish, broccoli
- **Calcium** - Milk yogurt, cheddar cheese

6. Why is it important to drink plenty of water every day? How much water should you drink every day?

Water speeds the metabolism and helps a person burn more calories (helps you process stored fat). Water will flush the system and keep things moving and help eliminate the toxins. Water regulates all body function. The functions of water are so important, everything from maintaining temperature to distributing nutrients throughout the body to providing the shape and rigidity of our cells. It'll be a lubricant in our joints. Water actually functions as a cushion for body tissues. All the way around our organs and around every cell, there's a layer of fluid. Water is a solvent to dissolve sugars in the bloodstream, digestive tract, saliva. It's a source of trace minerals.

It is recommended that eight 8-ounce glasses of water be drunk each day, but a better and simpler rule is to divide your body weight in pounds in half and then drink that number of ounces every day.

7. Name three common diseases that can be controlled by diet.

Three common diseases that can be controlled by diet are:

Colon Cancer

Common colds

Hypertension

8. What is the difference between whole wheat flour and white flour, and which one has the higher nutritive value.

Whole-wheat flour contains the bran (the fibrous outer layer) and the germ (the part that sprouts) of the whole-wheat berry. Therefore it has a higher nutritional, fibre, and fat profile than white flours, which have had both the bran and germ removed. Bleached white flours not only have had the bran and germ removed, taking with it essential vitamins and nutrients, they have been "whitened." White flour can be bleached naturally, as it ages, or it can be bleached chemically.

9. What does RDA mean?

The RDA or recommended daily allowance is the intake level for a particular vitamin or mineral that's sufficient to prevent a nutritional deficiency.

Nutrition Advance



1. Have the Nutrition Honor.
2. Read a book, about Nutrition.
3. Do the following:
 - a. Keep a food diary on yourself for one week.
 - b. Calculate the total nutrients for each day of the following: calories, protein, iron, calcium, Vitamin A, Thiamine, Riboflavin, Niacin and Vitamin C or Ascorbic Acid.
- c. How does this compare with the Recommended Dietary Daily Allowance chart?
4. Explain why a high fiber diet is important and tell how this can be obtained.

A High-fibre diet is recommended to, Increase faecal bulk Increase intestinal movement, prevent or treat constipation, diverticulosis, Crohn's disease, or irritable bowel syndrome, help lower cholesterol, assist with weight loss in people who are overweight and improve sugar tolerance in diabetics. Fibre is obtained from whole grains (especially bran), raw vegetables, unpeeled fresh fruits, nuts, and seeds:

5. Name three diseases due to malnutrition and describe the symptoms of each.

Beriberi: The symptoms associated with beriberi are, appetite loss, tiredness, irritability, muscle aches, limb pains, swollen joints, hand paralysis, foot paralysis, heart problems.

Pellagra causes a variety of symptoms affecting the skin; mucous membranes (moist linings of the mouth, organs, etc.); central nervous system (including the brain and nerves); and the gastrointestinal system The classic collection of symptoms includes redness and swelling of the mouth and tongue, diarrhoea, skin rash, and abnormal mental functioning, including memory loss. While early patients may simply have a light skin rash, over time the skin becomes increasingly thickened, pigmented, and may slough off in places. Areas of the skin may become prone to bacterial infection. The mouth and tongue, and sometimes the vagina, become increasingly thick, swollen, and red. Abdominal pain and bloating occur, with nausea and vomiting, and bloody diarrhoea to follow. Initial mental changes appear as inability to sleep (insomnia), fatigue, and a sense of disconnectedness (apathy). These mental changes progress to memory loss, confusion, depression, and hallucinations (in which the individual sees sights or hears sounds that do not really exist). The most severe states include stiffness of the arms and legs, with resistance to attempts to move the limbs; variations in level of consciousness; and the development of involuntary sucking and grasping motions. This collection of symptoms is called "encephalopathic syndrome."

Rickets: The symptoms mentioned from various sources for Rickets includes:

- Infant rickets symptoms:
 - Deformed skulls
 - Late-closing fontanelles
 - Rib-breastbone joint enlargement
 - Delayed sitting
 - Delayed crawling
 - Delayed walking
- Knobbly enlargements on the ends of bones
- Bowing legs under weight
- Distorting pelvis under weight
- Spinal curvature

6. What are the symptoms of vitamin B12 deficiency?

Vitamin B12 deficiency symptoms include:

- Loss of appetite
- Diarrhoea
- Numbness and tingling of hands and feet
- Paleness
- Shortness of breath
- Fatigue
- Weakness
- Sore mouth and tongue
- Confusion or change in mental status in severe or advanced cases. This is sometimes confused with dementia. More importantly, even a moderate deficiency of this important vitamin and its counterpart, folic acid, may ultimately contribute to the onset of Alzheimer's disease or other related dementias.

7. What advice would you give a person who decided to be a total vegetarian?

To ensure a nutritionally balanced diet, a variety of foods should be selected from each of the food groups. If you are changing to a vegetarian diet, make sure that you do not simply cut out meat or other animal products: a vegetarian diet is not simply a change from meat and two vegetable. You need to identify substitute foods that contain the nutrients previously provided by meat. Other factors to note is most vitamins can be provided by foods of plant origin. However, vitamin B12 is found only in foods of animal origin, and there are few plant sources of vitamin D.

8. What is the difference between saturated and unsaturated fats? Which is the most healthful and why?

Saturated Fats - Are fats derived primarily from animal sources such as beef and similar products. These fats are hard at room temperature. Saturated fats are the type you generally would like to avoid. Saturated fats should be limited to less than or equal to less than 10% of total calories per day

Unsaturated Fats - Can be further divided into monounsaturated and polyunsaturated fat. Polyunsaturated can be further divided into omega-3 and omega-6 fatty acids. Generally, unsaturated fats come from plant sources such as canola oil, olive, and similar products.

It is recommended that you replace saturated fats with monounsaturated fats whenever possible as these are thought to be generally helpful from a health standpoint. Too much saturated fat raises the level of cholesterol in the blood.

9. Why is it advisable to use less sugar in our diet and suggest ways in which this may be accomplished?

Our body transforms refined sugars into, hard, sticky fats and cholesterol. Sugars increase our blood fat (triglyceride) levels, which increase atherosclerosis, make platelets sticky, and increase risk of heart attack, stroke, embolism, high blood pressure, kidney failure, and heart failure. Sugars inhibit immune function, feed cancer, feed Candida, yeast, and bacteria, prevent vitamin C transport (glucose and vitamin C use the same transport mechanism), rob our body of minerals, cause hypoglycemia and diabetes, burn out our adrenal glands and pancreas, increase internal stress which increases cholesterol production, can also cause tooth decay and unruly behaviour. All refined and concentrated sources of sugars do this and should be avoided as much as possible. Even sweet fruit eaten in excess can have this effect in some people. Fruit should be eaten in moderation. Fizzy drinks should be avoided, reduce the intake of sweet foods.

10. Using the book *Counsels on Diet and Foods*, write a paragraph on the benefits of a lacto-ovo vegetarian diet.