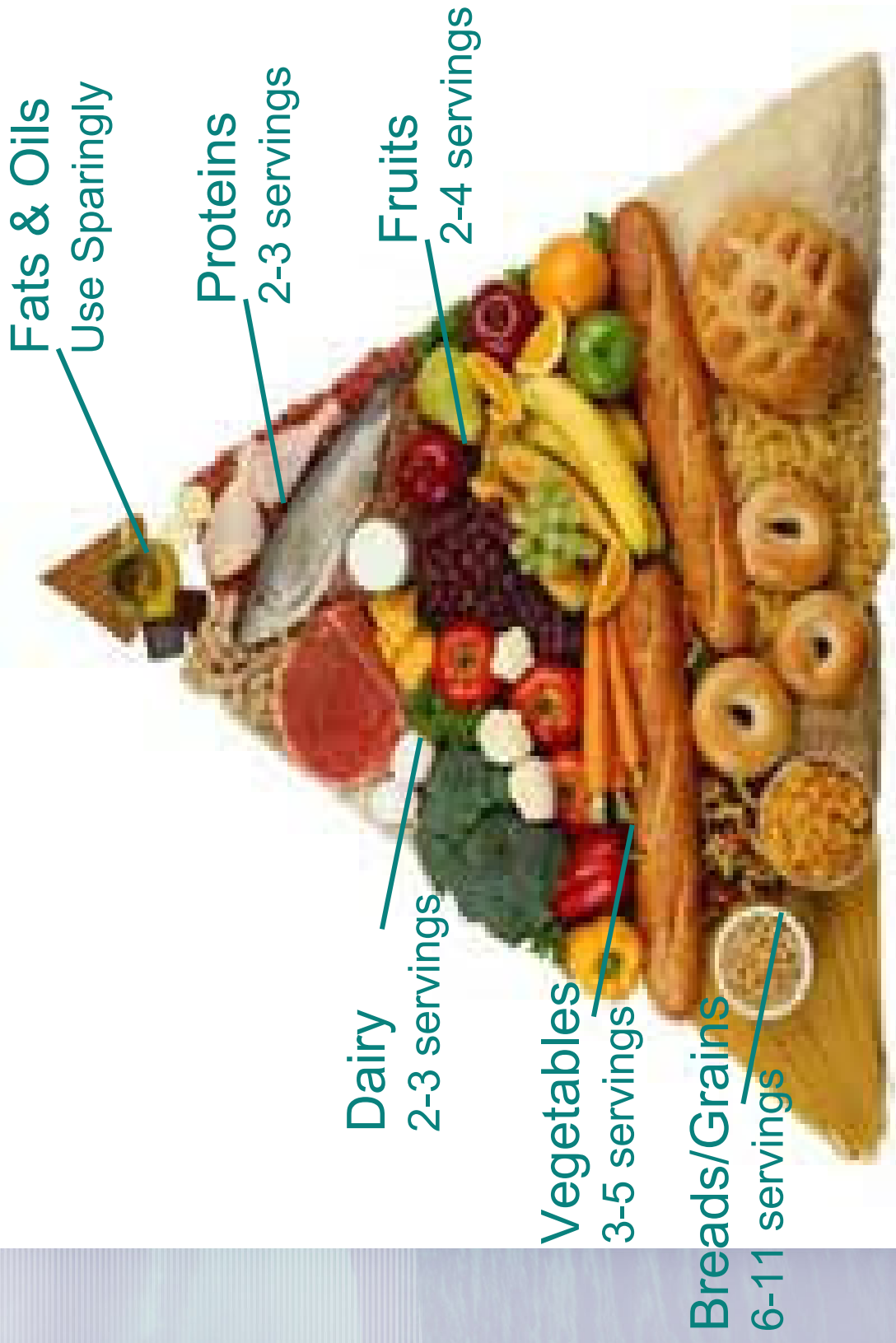




for the

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The Food Pyramid



CINDI Dietary Guidelines (1)

1. Eat a nutritious diet based on a variety of foods originating mainly from plants, rather than animals.
2. Eat bread, grains, pasta, rice or potatoes several times a day.
3. Eat a variety of vegetables and fruits, preferably fresh and local, several times per day (at least 400g per day).
4. Maintain body weight between the recommended limits (BMI of 20-25) by taking moderate levels of physical activity, preferably daily.
5. Control fat intake (not more than 30% of daily energy) and replace most saturated fats with unsaturated vegetable oils or soft margarines.

CINDI Dietary Guidelines (2)

6. Replace fatty meat and meat products with beans, legumes, lentils, fish, poultry or lean meat.
7. Use milk and dairy products (sour milk, yoghurt and cheese) that are low in both fat and salt.
8. Select foods that are low in sugar, and eat refined sugar sparingly, limiting the frequency of sugary drinks & sweets.
9. Choose a low-salt diet - no more than 1 teaspoon (6g) per day, including in bread & processed, cured, preserved food.

CINDI Dietary Guidelines (3)

10. If alcohol is consumed, limit intake to no more than 2 drinks (each containing 10g of alcohol) per day.
11. Prepare food in a safe and hygienic way. Steam, bake, boil or microwave to help reduce the amount of added fat.
12. Promote exclusive breast-feeding and the introduction of safe and adequate complementary foods from the age of about 6 months, but not before 4 months, while breast-feeding continues during the first years of life.

Facts about Fats

- Essential fatty acids (polyunsaturated) are required for numerous purposes in the body, including :
 - They are a major structural component in cell membranes.
 - They are required for the synthesis of important chemical substances in the body – e.g. prostaglandins.
 - Fats in the skin are important in preventing water loss from the body.
- Deficiency of essential fatty acids often results in signs of skin disease (including a dry, dull, scurfy coat and "hot spots"), poor wound healing and even poor reproductive performance.

(Provet Healthcare Information – <http://www.provet.co.uk/>)

Fats and Cholesterol (1)

- ‘Bad fats’ increase the risk for certain diseases and ‘good fats’ lower the risk. The key is to substitute good fats for bad fats.

(Harvard School of Public Health, 2005)

Fats and Cholesterol (2)

- Dietary cholesterol is not nearly the villain it has been portrayed to be.
- Cholesterol in the bloodstream is what is most important.
- The average person makes about 75% of blood cholesterol in his or her liver, while only about 25% is absorbed from food.
- The biggest influence on blood cholesterol level is the mix of fats in the diet.

Types of Fats — Monounsaturated FAs

- Sources:
 - Olives; olive oil, canola oil, peanut oil; cashews, almonds, peanuts, and most other nuts; avocados
- Consistency at room temperature:
 - Liquid
- Effects on cholesterol level:
 - Lowers LDL
 - Raises HDL

Types of Fats — Polyunsaturated FAs

- Sources:
 - Corn, soybean, safflower, and cottonseed oils; fish
- Consistency at room temperature:
 - Liquid
- Effect on cholesterol level:
 - Lowers LDL
 - Raises HDL

Types of Fats — Saturated FAs

- Sources:
 - Whole milk, butter, cheese, and ice cream; red meat; chocolate; coconuts, coconut milk, and coconut oil
- Consistency at room temperature:
 - Solid
- Effect on cholesterol level:
 - Raises LDL
 - Raises HDL

Types of Fats — Trans-Fatty Acids

- Sources:
 - Most margarines; vegetable shortening; partially hydrogenated vegetable oil; deep-fried chips; many fast foods; most commercial baked goods
- Consistency at room temperature:
 - Solid or semi-solid
- Effect on cholesterol level:
 - Raises LDL

‘Bad’ and ‘Good’ Dietary Fats

- ‘Bad’ fats include:
 - Saturated fats
 - Trans fats
- ‘Good’ fats include:
 - Unsaturated fats
 - Monounsaturated
 - Polyunsaturated fats

Research Findings

- The Nurses' Health Study (2001) and the Health Professionals Follow-up Study (2001) found no link between the overall percentage of calories from fat and any important health outcome, including cancer, heart disease, and weight gain.
- What was important in these studies was the type of fat in the diet. There are clear links between the different types of dietary fats and heart disease.

(Harvard School of Public Health, 2005)

‘Bad’ Fats

- Trans-fats are much worse than saturated fats.
 - The Nurses' Health Study (2001) found that replacing only 30 calories (7 grams) of carbohydrates every day with 30 calories (4 grams) of trans fats nearly doubled the risk for heart disease.
- Saturated fats increased risk as well, but not nearly as much.

‘Good’ Fats

- High intake of either monounsaturated or polyunsaturated fat lowers the risk for heart disease.
- In the Nurses' Health Study (2001), replacing 80 calories of carbohydrates with 80 calories of either polyunsaturated or monounsaturated fats lowered the risk for heart disease by about 30 to 40 percent.

Fish and Omega-3 Fats

- The omega-3 fats in fish (such as mackerel, salmon, sardines, or swordfish) appear to protect the heart against the development of erratic and potentially deadly rhythm disturbances.
- The American Heart Association (2002) currently recommends that everyone eat at least two servings of fish a week.

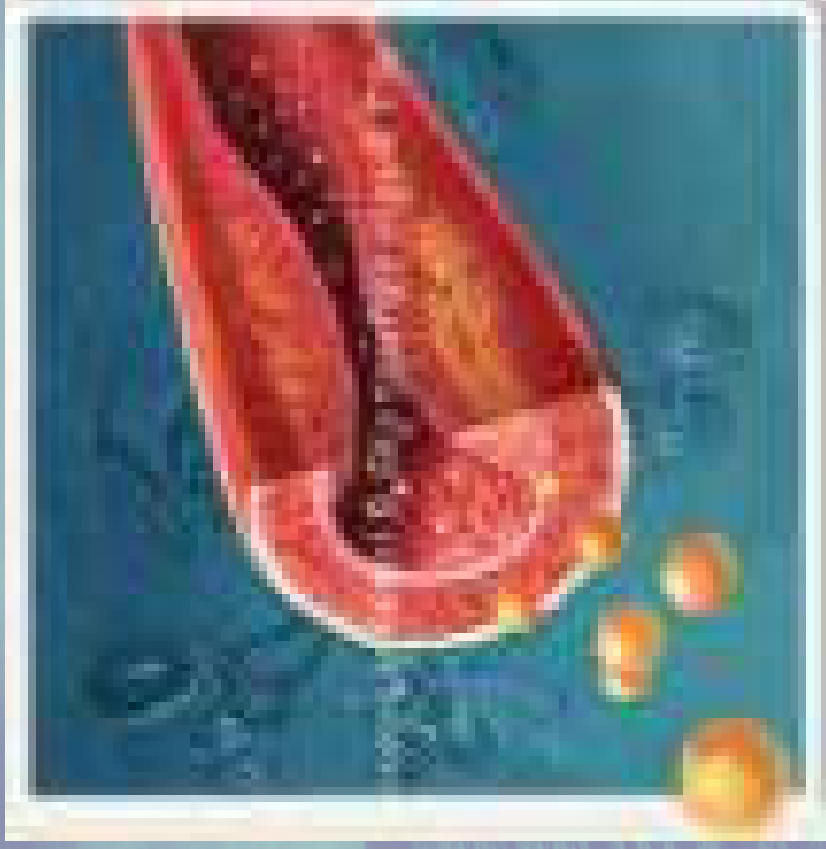
Recommendations (1)

- Limit fat intake to 30% of total daily calorie intake.
- Try to limit saturated fats in your diet and eliminate trans fats and replace them with polyunsaturated and monounsaturated fats.
- Read food labels to choose the items with less ‘bad’ fats and more ‘good’ fats.

Recommendations (2)

- Choose liquid vegetable oils or a soft tub margarine that is contains little or no trans fats.
- Reduce intake of commercially prepared baked goods, snack foods, and processed foods, including fast foods. To be on the safe side, assume that all such products contain trans fats unless they are labelled otherwise.
- When foods containing hydrogenated or partially hydrogenated oils cannot be avoided, choose products that list the hydrogenated oils near the end of the ingredient list.

Cholesterol accumulation in veins



Cholesterol accumulation in veins



Cholesterol accumulation in veins

