

## Benefits of Nutrition

### A. Nutrients

Definition = compounds the body needs for proper growth, maintenance, and functioning.

### B. Six Classes of Nutrients

- 1) Carbohydrates
- 2) Fat
- 3) Protein
- 4) Vitamins
- 5) Minerals
- 6) Water

### C. Malnutrition

Def.= the results in the body of poor nutrition, overnutrition, and undernutrition.

- 1) Undernutrition
  - a) too few nutrients for health and growth
- 2) Overnutrition
  - a) excess food energy/nutrients

## Energy from Food

### A. Energy = capacity to do work

#### 1) Sources

- a) carbohydrates - main fuel = glucose (blood sugar) brain and nervous system use for energy
- b) fat – fuel called fatty acids - used by muscles and heart
- c) protein – fuel called amino acids (used as last resort) builds body tissue
- \*) alcohol - not a nutrient, but is a toxin

#### 2) Calories

Def. = unit to measure energy

It is how much energy in food can be stored as body fat.

- a) carbs = 4 calories per gram
- b) fat = 9 calories per gram

- c) protein = 4 calories per gram
- \*) alcohol = 7 calories per gram

## **B. Storing Energy**

- 1) Glucose – turned to glycogen and stored in liver and muscles
- 2) Fat – extra glucose is changed to fat by liver and stored