

Proper Nutrition

Process of taking in food for growth and repair and to maintain health.



Nutrition and the Elderly



- General practice is to relax the strict “medically indicated” diets.
- Strict diets lead to decreased food intake and serious weight loss.
- Regular diet, well balanced with variety of food choices and some moderation in fats and sweets.
- Malnutrition related to increased falls and fractures, poor balance, slower reaction time, movement coordination, and muscle strength.
- Decreased absorption and utilization of nutrients.

Essential Nutrients - Protein

- Protein is basic material of every cell. Makes and rebuilds tissues.
- 25-50% should come from animal sources, remainder from plants
- Proteins is made up of 22 amino acids. Body synthesizes all but 9.
- 9 essential amino acids that body can't make must be supplied in diet.
- Complete proteins contain all 9, meat, fish, eggs, milk, and poultry.
- Incomplete proteins corn, peas, beans, nuts.
- Can combine incomplete to make complete (vegetarian diets).
- Proteins - Elderly need approx the same as adults .8g/kg.
- Elders overall mass of actively metabolizing tissue decreases with age.
- Need for protein during illness/convalescence or after a wasting disease may increase.

Carbohydrates - to provide fuel for energy

- Glucose intolerance in elderly is conditional.
- Carbohydrate metabolism usually not disturbed.
- FBS essentially normal in the aged.
- Approximately 50% of kcalories should come from carbs, especially complex carbs such as starches.
- Minimum of 100g/day to prevent breakdown of protein and fat for energy. Provides cellulose, fiber.
- If intake is more than needed, remainder is stored as fat which requires the secretion of insulin.
- Mostly plant sources, fruits, vegetables, grains.

Fats

- Elderly should avoid large quantities of fat.
- Should be approx 20% of diet's total kcalories.
- Omega 3 fatty acids found in fatty fish reduce the rate of coronary thrombosis. Salmon best source.
- An essential fuel reserve, controls body temperature.
- Padding of adipose tissue for vital organs.
- Myelin surrounding nerve fibers is fat insulation.
- Required for absorption of vitamins A,D,E, and K.
- Too much saturated fat (from animals) ^blood lipids linked to atherosclerosis.
- Examples of foods rich in fats include pork, butter, nuts, egg yolk, cheese.

Vitamins - Fat soluble, A,D,E, and K, are stored

- Elderly need more Vitamin D and less of Vitamin A.
- Vitamin A retinol- found only in animal sources. Good for the retina of the eye, hence its name.
- Vitamin A Beta-Carotene- found in plant pigments. Main source is yellow pigment of carrots, also deep yellow and green plant pigments.
- Needed for visual adaptation to light and dark, body coverings (skin) and linings, growth of skeletal and soft tissues, reproductive functio.
- Has antioxidant capacity which protects persons as they grow older from cell damage from free radicals which damage the DNA, cell membranes, cell compounds, or kill the cell outright.
- Free radicals are by-products of normal metabolism of cells, or environmental exposure to sunlight, tobacco smoke, car exhaust, ozone, or x-rays, ect.

Minerals

- Help build body tissue especially bones and teeth.
- Regulate the chemistry of body fluids.
- Calcium
- Phosphorus
- Iodine
- Iron
- Copper
- Magnesium
- Zinc
