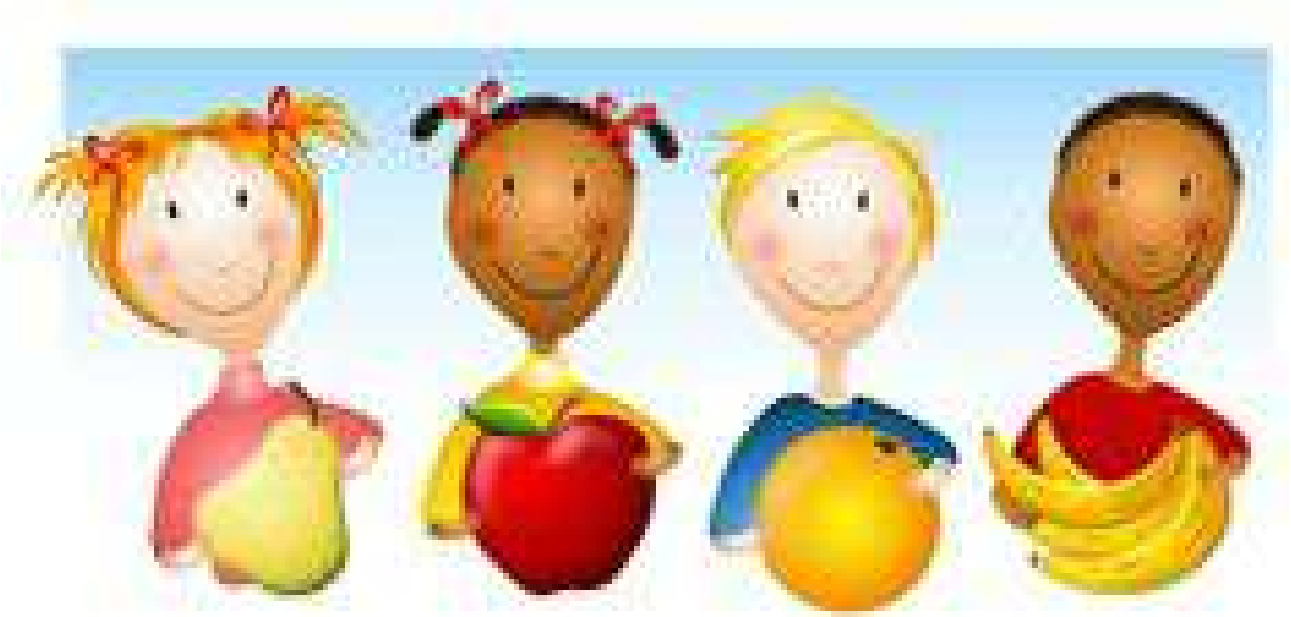
Chapter 13



Life- Span Nutrition
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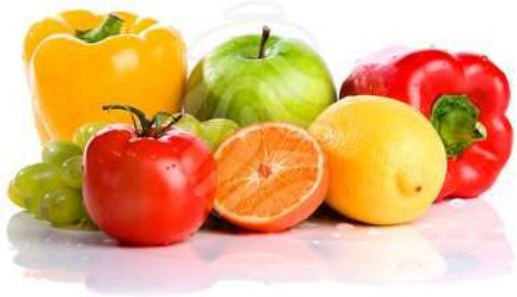
Nutrition for a Lifetime

- **Life Span.** The stages of development that people go through from birth through maturity.

- The human life span includes five stages:
  - Pregnancy (prenatal period)
  - Infancy
  - Childhood
  - Adolescence
  - Adulthood

- Each stage brings its own growth and nutrition needs and challenges.



Pregnancy

- Development in the pregnancy period depends on getting the right nutrients.
- The **Fetus**, which is the unborn baby, cannot control the kinds and amounts of nutrients it receives.
- The mother alone is responsible for supplying the nutrition through her own food choices.

Guidelines for Pregnant Women

- As soon as she learns she is pregnant a woman should see an **obstetrician**, a physician who specializes in the care of women during pregnancy and childbirth.

Other nutrition concerns of pregnancy include the following:

- Iron needs to double during pregnancy (absorbed by animal sources, citrus fruits, and other foods rich in vitamin c.

- The B vitamin folic acid, or folate, is so valuable to preventing birth defects. (found in fruits and dark green vegetables)

- Contaminants in foods can cause birth defects and **miscarriage,** the spontaneous expulsion of the unborn child. (fish and shellfish, for example, contain various levels of mercury, but large fish, including tuna, mackerel, swordfish, shark, and tilefish, have the greatest amounts.

- Small amounts of caffeine are thought to be safe during pregnancy. Drinking at least 8 glasses of water a day helps prevent constipation.

Pregnancy and Weight Gain

- **Women should expect to gain around 25-35 pounds during pregnancy.**
- **Woman carrying twins are urged to gain as much as 45 pounds.**
- **The added weight comes from the growth of the baby and physical changes of pregnancy.**
- **Healthy women need only 300 more calories over their usual intake.**
- **Pregnancy is no time for a weight loss diets, even for women who are overweight.**

Infancy

- **Feeding Newborns**

- Parents have two choices for feeding a newborn- breast-feeding or bottle-feeding.

- Both provide all nutrient needs for an infant's first four to six months, experts recommend breast-feeding.

- Breast milk has the right balance of fat, carbs. And protein for a baby.

Breast Feeding/Bottle Feeding

- Breast feeding also lowers the rate of infections infants. The mother passes her own immunity to disease through her colustrum.
  - **Colostrum:** a thick, yellowish fluid that is rich in nutrients and antibodies, proteins that protect the baby from infection.
- **Lactation.** Or breast milk production, burns added calories that make a weight loss diet unnecessary as well as unwise for the woman.
- Bottle-feeding infant formula also provides good nutrition.
- If a mother needs to take certain medications that could be passed to the infant, it's recommended they bottle feed.
- Usually made from cow's milk.
- Babies who have an intolerance to cow's milk may use soy protein, corn syrup or a formula with "predigested" protein.

Adding Solid Food

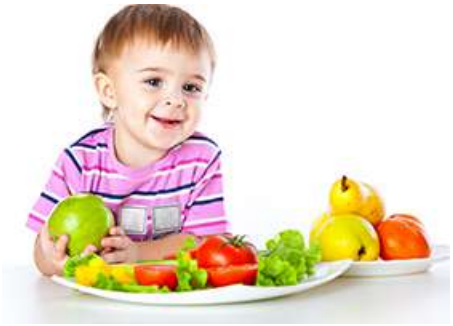
- Between four and six months of age, a baby is ready to start the transition to solid food.
- Iron fortified rice cereal made with breast milk or formula is usually offered first, then veggies and fruits.
- The child's **pediatrician**, a physician who cares for infants and children, should be notified if a problem persists.
- 9 months finger foods are introduced.
  - Peeled fruit
  - Cooked veggies
  - cheese

Childhood

- Young children need to eat a wide selection of nutritious foods.
- A child who is still hungry after eating can e given more milk, juice, yogurt, pieces of fruit, or vegetables, unsweetened cereal, who –grain crackers, and cooked meat, poultry, and fish.
- A child's appetite can vary almost daily. During growth spurts, children may eat more than usual.

Encouraging Good Eating Habits

- **Eating habits and attitudes learned in childhood can last a lifetime.**
- Serve foods that vary in color and texture. Use creativity!
- Share meals with children and model good manners and eating habits.
- Don't use food as a reward or punishment
- Don't urge children to clean their plate.
- When possible, let children choose meals and snacks from several nutritious options.
- Teach children how to prepare a few simple healthful foods by themselves,
- Make shopping trips with children fun and educational.



Nutrition and Special Needs

- Meeting the nutrition requirements of children with special needs can bring special concerns.
- These children have health conditions that impair physical, emotional, or intellectual development.
- Caregivers may need to learn how to use a feeding tube or how to respond to disruptive behavior at mealtime.
- A child with limited mobility may need family support to follow a low-calorie eating plan.

Adolescence

- Adolescence is the second most rapid growth period of life. Dramatic physical changes increase a teen's need for almost all nutrients
- Iron and calcium are of special importance for building muscle and bone.
- Teens go through growth spurts when calorie and nutrient needs increase.
- Teens should base food choices on their own body cues, such as hunger and height gain.
- They may need to resist **peer pressure**, the influence of people in the same age group to eat more or less than they require.

Nutrition for Teen Athletes

- Careful conditioning and sound nutrition are the surest ways to long-lasting, top athletic performance.
- Extra protein from foods or supplements does no good and can be harmful. Likewise, athletes who eat a varied nutritious diet don't need sports bars or dietary supplements.
- Two essential nutrients play special roles for athletes: Carbohydrates and water.

Carbohydrate Needs

- Glycogen fuels the body during vigorous, extended periods of training and competition, when an athlete may use two or three times as much energy as the average person. When glycogen runs out, so does the energy.

Water Needs

- During a strenuous workout an athlete can lose up to 5 quarts of water through perspiration.
- If water isn't replaced quickly, dehydration can result, which can lead to serious health problems.
- Athletes should drink water before, during (about every 15 minutes) and after an event. Thirst signals that dehydration has already begun.
- Drinking juices and fruit drinks can cause stomach cramps, diarrhea and nausea due to the high sugar content.
- Sports drinks that contain cabs. And electrolytes are valuable for activities lasting longer than 90 minutes.
- Caffeinated drinks, which draw water from the body, are not advised.

Pre-Event Meals

- If you eat just before a competition, the digestive process competes with your muscles for energy. You should eat 3-4 hours before the event.

- A good pre-event meal is based on foods that are high in complex carbs.

- After an athletic event or a hard workout is the best time to refuel the body with nutritious foods and fluids.

Adulthood

- Many adults face a nutrition dilemma. They need the same amount of nutrients, but they need fewer calories.
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- Unless they are careful, adults may find their weight rising, along with the risk of heart disease, various types of cancer, and other assorted health problems.

Other Adults

- Physical changes of aging do require more care in eating habits. Often, calorie needs continue to drop while other nutrition needs increase. To make every calorie count, older people should choose nutrient-dense foods.

- Certain circumstances can challenge older adults. Those who live alone or on fixed incomes may not have the desire or the means to prepare nourishing meals.

- Social service programs in many communities address specific needs for the elderly.