CULINARY NUTRITION

CULINARY ARTS
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NUTRITION
NUTRITION IN FOODSERVICE

Chefs must be able to:

▪ Accommodate diners’ dietary request
▪ Create menu items for dietary restrictions
▪ Stay current with nutrition information
▪ Work with nutrition experts
NUTRITION BASICS
NUTRIENT GROUPS

1. Carbohydrates
2. Lipids
3. Minerals
4. Protein
5. Vitamins
6. Water
CARBOHYDRATES

- Body’s chief energy source
- Contributes four calories of energy per gram

- Two types:
  - Complex
    - Starch
    - Fiber
      - Soluble
      - Insoluble
  - Simple
    - Sugars
LIPIDS

- Contain nine calories of energy per gram
- Found in animal-based foods
  - Saturated fat – solid at room temperature
  - Unsaturated fat – liquid at room temperature
- Needed for normal growth and development
- Provide a concentrated source of energy
- Trans fat is created when unsaturated oil is chemically changed (hydrogenation)
MINERALS

- Divided into:
  - Major – 100 milligrams or more needed per day
  - Trace – less than 100 milligrams needed per day

- Necessary for important functions such as:
  - Bone formation
  - Energy metabolism
  - Proper functioning of the nervous system
  - Water balance
PROTEINS

- Building blocks of the human body
- Food sources can be either:
  - Animal – complete protein
  - Plant based – incomplete protein
- Needed for:
  - Growth
  - Maintenance
  - Repair of body tissues
VITAMINS

- Aid in the formation of healthy bones and teeth
- Are part of the blood-clotting process
- Ensure proper vision
- Support the immune system
- Vitamins are either:
  - Fat-soluble vitamins ingested when various fats are eaten
  - Water-soluble vitamins dissolve in water
WATER

- 50 to 60 percent of weight of the human body
- Essential part of digestion
- Lubricates joints
- Transports nutrients and waste
DIETARY HABITS

- Exercise Regularly
- Eat Healthy
- Reduce Stress
- Drink Plenty of Water

Healthy Life
EXERCISE

▪ The Dietary Guidelines for 2010 recommends to:
  ▪ Increase physical activity
  ▪ Reduce sedentary behavior
▪ Encourage physical activity in:
  ▪ Childcare and childhood settings
  ▪ Schools
  ▪ Walk-to-school programs
EMOTIONAL FACTORS

- Job requirements include:
  - Long hours of physically demanding work
  - Work schedule of evenings, holidays and weekends

- Pressures can be caused by:
  - Change
  - Confrontation
  - Deadlines
MANAGING STRESS

Positive ways include:

▪ Exercise
▪ Hobbies
▪ Meditation
▪ Reading
▪ Talking to a friend
HEALTHY KITCHENS, HEALTHY LIVES™ CONFERENCE

(click on link)

(image from video)
NUTRITION: BREAKING BOUNDARIES

(image from video)
DRY COOKERY METHODS

- Transfer heat to food by:
  - Conduction
  - Hot air convection
  - Radiation

Include:
- Baking
- Broiling
- Deep frying
- Grilling
- Roasting
- Sautéing
MOIST COOKERY METHODS

- Use liquid or steam in the cooking process
- Best used for tougher meats and fibrous vegetables
- Include:
  - Boiling
  - Poaching
  - Simmering
  - Steaming
COMBINATION

- Applies both dry and moist heat techniques to the same food
- Includes:
  - Braising
  - Stewing
LET’S REVIEW!

1. Why do chefs need to know about nutrition?
2. How many nutrient groups are there? Can you name them?
3. What is the body’s chief energy source?
4. What are trans fats? Are they healthy for you?
5. There are many minerals and vitamins – how many can you name?
6. How much of the body is water?
7. How is working in the foodservice industry stressful?
8. Identify the different dry and moist cooking methods.
PEOPLE WHO LOVE TO EAT ARE ALWAYS THE BEST PEOPLE
REFERENCES AND RESOURCES

Images:
▪ Shutterstock™ images. Photos obtained with subscription. (Slides 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 24, 25)

Textbooks:

Website:
▪ SDA WIC Work Resource System
  Appendix C: Nutrient Chart – Function, Deficiency and Toxicity Symptoms, and Major Food Sources

YouTube™:
▪ Healthy Kitchens, Healthy Lives™ Conference
  Healthy Kitchens, Healthy Lives is a four-day conference held at The Culinary Institute of America at Greystone in the Napa Valley. The conference brings together experts from Harvard School of Public Health, the Samueli Institute, and other leading organizations, to present state-of-the-science on diet and nutrition. These experts are joined by chefs from the CIA to lead teaching sessions for healthcare professionals who want to learn about techniques for cooking delicious healthy foods.
  https://youtu.be/qGmmCNe4qLo
▪ Nutrition: Breaking Boundaries
  JWU’s groundbreaking Culinary Nutrition program is changing the science of food - and it's the first of its kind to receive ACEND accreditation. Ready to launch your dietitian, product research, spa chef or medical nutrition career?
  https://youtu.be/xqb_YyrNHPk?list=PLSpZmcyjE5lYAW6yYcNE1KiJxG_SVUIlg