

PHYSICAL EDUCATION AND HEALTH

Second Quarterly Assessment

L3: Modifiable Risk Factors of Lifestyle Disease

Communicable Diseases

- An illness that spreads from one person or animal to another, or from a surface to a person.

Non Communicable Diseases (NCDs)

- Are top killers in the Philippines.
- Are non-infectious illnesses but can be inherited or developed based on the individual's lifestyle.

Ex:

- Heart Disease, Cancer, Liver Cirrhosis, Chronic Renal Failure, Obesity, Stroke and Type 2 Diabetes.

LIFESTYLE DISEASES

- An individual's usual routine, food intake, vices or way of life that can develop diseases.

SMOKING

- It weakens the body and leads to many diseases.

TAR

- Is a harmful by-product of smoking cigarettes which is carcinogenic.

NICOTINE

- Is a toxic chemical compound that mostly consists of nitrogen.

CARBON MONOXIDE

- Is a poisonous chemical from burnt cigarettes that makes the heart do more work.

Kinds of Tobacco Smoke

1. Mainstream Smoke

- It refers specifically to the smoke that a smoker directly inhales. (First Hand smoke)

2. Second-hand Smoke

- Is the combination of two forms of smoke from burning tobacco:
 - **Side-stream Smoke** - Describes the smoke coming off the end of a smoldering cigarette.
 - **Main-stream Smoke** - Is smoke that is exhaled by the smoker

3. Third-hand Smoke

- Is the left-over contamination in a room/car/clothing that persists after the cigarette is extinguished.

Dietary Habits

- Are the usual choices of food that people make.

Poor Dietary Habits

- Occur when the person does not follow the principle of good nutrition - **adequacy, balance and variety**.
- **Adequacy** - refers to moderate amounts of nutrients to maintain normal body function.
- **Balance** - refers to the correct combination of nutrients.
- **Variety** - refers to consumption of different types of food product.
- Add up the risk of developing diseases and health problems such as:
 - Obesity
 - Tooth decay
 - High blood pressure

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- Heart disease and stroke
- Type - 2 diabetes
- Osteoporosis
- Certain types of cancer
- Depression
- Eating disorder

SEDENTARY LIFESTYLE

- Occurs when an individual lacks the recommended level of regular physical activity or physical inactivity.

DISEASES ASSOCIATED WITH UNHEALTHY LIFESTYLE

CARDIOVASCULAR DISEASE

- A disease of the heart and blood vessels and the leading cause of death in our country.

CANCER

- A disease where cells divide in an uncontrolled pace.
 - **MALIGNANT** - Is cancerous, The tumor can spread to invade and destroy nearby tissues and body parts. This process is called metastasis.
 - **BENIGN** - Is not cancerous, Benign tumors may increase in size but do not invade other body parts.

Four Major Categories of CANCER

- **CARCINOMA** - The most common; an invasive malignant tumor from epithelial tissue that tends to spread to other body parts.
- **SARCOMA** - A connective or supportive cancer, which include muscle, bone, fat, blood vessels, and cartilage cancers.

- **LYMPHOMA** - Arises in cells of the lymphatic or the immune system tissues characterized by abnormal production of white cells and decreases in resistance.
- **LEUKEMIA** - The cancer of the blood or bone marrow characterized by an abnormal production of blood cells, usually leukocytes or white blood cells.

DIABETES / DIABETES MELLITUS

- A disease resulting from a condition of the body wherein it is not capable of producing or effectively using insulin.

Types of DIABETES

- **TYPE 1 DIABETES** - Is insulin reliant diabetes because the body produces little or no insulin at all.
- **TYPE 2 DIABETES** - Is non-insulin dependent, This occurs when the body produces insulin but cannot be used by the cells.
- **GESTATIONAL DIABETES** - Occurs in certain pregnant individuals, The hormones cause the body not to respond to the insulin produced by the body.

Ways to Prevent Lifestyle Diseases

- Eat healthy foods
- Do daily routines of physical activity
- Do not smoke
- Drink moderate amounts of alcohol only
- Manage stress.

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L4: Fuel for Performance

NUTRITION

- Is the health branch that stresses the importance of the food for growth and development, as well as in lowering the chances of acquiring diseases and illness.

Key Principles of Nutrition:

- **ADEQUACY**
- **BALANCE**
- **VARIETY**

NUTRIENTS

- Are important food substances that help our body function properly.

CLASSIFICATIONS:

1. MACRONUTRIENTS

- **CARBOHYDRATES** - Main source of energy.
- **PROTEINS** - Needed for growth, building and repair of body tissues.
- **FATS** - Needed for immune system function and helps the body store and use vitamins.
- **WATER** - Needed for waste removal, regulates body temperature; cushions the spinal cord and joints.

2. MICRONUTRIENTS

- **CALCIUM** - Needed for muscle contraction, nerve signaling, and bone growth and strength.
- **VITAMIN D** - Promotes calcium absorption and

maintains calcium levels. Aids in bone growth and bone remodeling.

- **B VITAMINS** - Required for energy metabolism and nerve function.
- **ZINC** - Promotes wound healing, creates protein and DNA, and keeps the immune system strong.
- **IRON** - Components of hemoglobin that carries oxygen throughout the body. Essential for breathing and energy metabolism. Aids in proper immune function.
- **MAGNESIUM** - Involved in protein synthesis, muscle and nerve function, blood sugar control, and blood pressure regulation. Necessary for energy production.
- **VITAMIN C** - Acts as an antioxidant. Necessary for collagen, carnitine, and tyrosine (proteins) synthesis.
- **VITAMIN E** - Acts as an antioxidant and helps protect us against harmful free radical formations, when fat undergoes breakdown in the body.
- **SELENIUM** - Acts as an antioxidant.

BEFORE, DURING, AND AFTER EXERCISE

BEFORE EXERCISE

- The food eaten before exercise serves as the energy source.

GLUCOSE

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- A simple form of sugar that converts into energy.

GLYCOGEN

- Sugar stored in liver and muscle cells, which can be broken down to glucose.

DURING EXERCISE

- The amount needed depends on the duration of the exercise.

AFTER EXERCISE

- The amount of food and time depends on the duration and intensity.

EFFECTS OF BAD NUTRITION

Consequences of Poor Nutrition

- Poor Performance
- Long Recovery
- Immune Suppression
- Weight Changes

Ways to Improve Eating Habits

- REFLECT
- REPLACE
- REINFORCE

Factors that can Affect Weight Control

- Genetic Factors and Hormones
- Environmental Factors
- The Concept of Energy Balance

FAD DIETS AND SUPPLEMENTS

Guidelines for Safe and Nutritious Diet

- Eat food that is low in calories but requires essential body nutrients.

- Fat should be less than 30% of calories but high in carbohydrates.
- Variety of food suits tastes and avoids hunger between meals.
- Compatible with lifestyle and readily available.
- Diet should be lifelong and sustainable.

DIETARY SUPPLEMENTS

- Are substances that contribute to health maintenance and overall diet.

Risks in Taking Supplements

- Combination of supplements
- Combined with medications
- Replacement of prescription medicines
- Overdose of Vitamins A, D, and Iron
- Dangerous before, during, and after surgery