

**1. Intro to Nutrition and Types of Malnutrition**

From class and the reading *1.1 Nutrition Science*:

* What is the definition of nutrition science? The investigation of how an organism is nourished, study of how nourishment affects personal health, population health, and planetary health
* Through careful \_\_\_observation\_\_\_\_\_\_\_\_\_ and \_\_experimentation\_\_\_\_\_\_\_\_, early scholars were able to identify dietary treatments for deficiency diseases. (These two items are important parts of the scientific method.)
* Does a poor dietary intake always lead to noticeable physical symptoms? no
* How can poor dietary choices affect the quality of life? Higher risk for diseases

**From class, the video *Malnutrition* and the reading *1.2 Types of Malnutrition*:**

* Why are both undernutrition and overnutrition considered malnutrition?

|  |  |  |
| --- | --- | --- |
| **Types of Malnutrition** | **Causes what type of disease?** | **Examples of Disease** |
| Undernutrition | Leading cause of death  Insufficient consumption of nutrients  Stunted weight and growth  Suppression of the immune system | death |
| Overnutrition | Over consumption of nutrients  Toxicities of vitamins andminerals | Heart diseas  Type 2 diabetes  Hypertension  Some cancer |

* How does the type of diseases that are most common differ in high-income and low-income countries? High income can prevent mal nutrition, but promotes over nutrition, vice versa

**Terms to Know**

Malnutrition

Undernutrition

Overnutrition

Double burden of malnutrition population having both over and undernutrition

Ultra-Processed foods

Food insecurity

Hidden Hunger inadequate intake of vitamins and minerals

Deficiency disease

Clinical symptoms

Sub-clinical symptoms

Chronic disease

**2. Nutrients and Phytochemicals**

**From class, the tutorial *Nutrients*, and the reading *1.3 Food Components and Energy*:**

|  |  |  |
| --- | --- | --- |
| **Classes of Nutrients** | **Macronutrient or micronutrient** | **Key Functions in Body** |
| Carbohydrate | Macro | Energy, structure, regukate body procces |
| Protein | Macro | Energy, structure, regulate body procces |
| Fat (Lipid) | Macro | Energy structure regulate body processes |
| Water | Macro | Strauctureregulate body processes |
| Vitamins | micro | Regulate body processes |
| Minerals | micro | straucutre |

* Why isn’t cholesterol an essential nutrient? Body produces a suffieicent amount
* What are the three functions of nutrients in the body? Energy, structure, body proccesses
* What does the term “energy” mean in nutrition? Calories, fuel, atp
* What is ATP? Energy created in the cells

From class, the tutorial *Calculating Calories*, and the *Calculating Calories* pdf:

|  |  |  |
| --- | --- | --- |
|  | Nutrient or Non-nutrient | Kcals per gram |
| Carbohydrate | Nutrient | 4 |
| Protein | Nutrient | 4 |
| Fat | nutrient | 9 |
| Alcohol | Non nutrient | 7 |

Skill: Calculate the estimated number of Calories when given the amount of carbohydrate, protein, fat, and/or alcohol.

From class, the video *Nutrient Density*, and the reading *1.4 Phytochemicals and Nutrient Density*:

* How is a phytochemical different from a nutrient? Comes from plants, cant be harvested or isolated, cant take away
* *Question to Ponder:* What are some of the possible benefits of consuming a variety of fruits and vegetables of different colors? Different phytochemicals provided
* What is the impact on the food’s nutrient density when it has sugar and fat added to it? Nutrient density is lowered sugar provides not nutrients

Skill: Identify the nutrients that are nutrient-dense in the food.

Terms to Know

Essential Nutrient

Non-essential nutrient

Macronutrient

Micronutrient

Gram (g)

Milligram (mg)

Microgram (mcg or µg)

Energy-yielding nutrient

calorie

Calorie, Kilocalorie, kcal

Phytochemical

Nutrient Density

**3. Stages of Change**

**From class and the reading *1.5 Promoting Change*:**

**Skill:** When given a case-study, be able to identify the stage of change the person is in for making a behavior change.

**Terms to Know**

Precontemplation Stage not thinking about

Contemplation Stage thinking about

Preparation Stage intend action

Action Stage less 6 months

Maintenance Stage more than 6 months