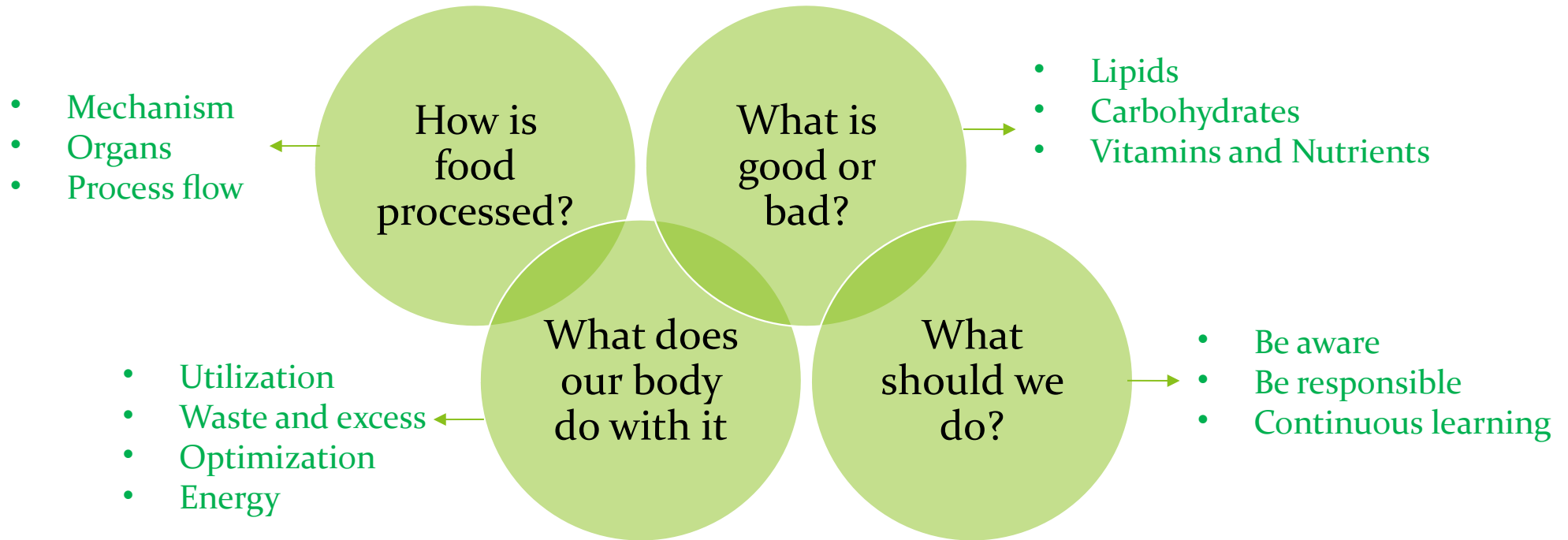


Nutrition Science Digital Study Guide





Why what we know about what we eat matters?



“If you’re not a nutrition expert, you probably think you’re doing yourself a favor by cooking with healthy coconut oil and avoiding slathering’s of fattening peanut butter — but actual nutrition experts would disagree (**Downing, 2017, p. 1**)”.

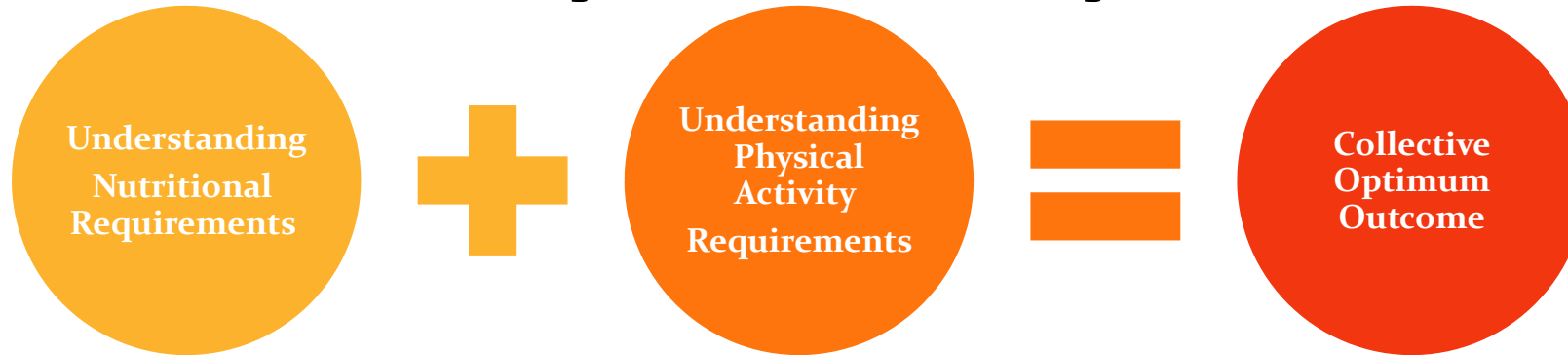
The Digestive System

“Your digestive system is uniquely constructed to perform its specialized function of turning food into the energy you need to survive and packaging the residue for waste disposal (“**The Structure and Function of the Digestive System,**” n.d, p. 1)”





Nutrition and Physical Activity



Understanding
Nutritional
Requirements

- ❑ DRI
- ❑ RDA
- ❑ EAR
- ❑ AI
- ❑ UL
- ❑ AMDR
- ❑ EER

Understanding
Physical
Activity
Requirements

- ❑ Physical activity versus exercise and physical fitness
- ❑ Sound fitness program (FITT principle)
- ❑ Aerobic versus anaerobic

Collective
Optimum
Outcome

“Good nutrition, physical activity, and a healthy body weight are essential parts of a person’s overall health and well-being. Together, these can help decrease a person’s risk of developing serious health conditions, such as high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer. A healthful diet, regular physical activity, and achieving and maintaining a healthy weight also are paramount to managing health conditions so they do not worsen over time(“Nutrition, Physical Activity, and Obesity,” 2020, p. 1)”



Lipids

Lipids include fats (solid at room temperature) and oils (liquid at room temperature).

Lipids are an important part of a healthy diet. The body uses lipids as an energy store, as insulation and to make cell membranes.

Lipids are formed of carbon, hydrogen and oxygen atoms. There are two types of lipids:

- ❑ **Fats** - These are solid at room temperature. Butter and cheese are high in fat.
- ❑ **Oils** - These are liquid at room temperature. Examples include oils from nuts, seeds and fish.

How does the body use lipids?

Every cell in your body has a cell membrane which is made of lipids. Some hormones, including sex hormones, are made from a lipid called cholesterol.

Fat is also an important energy store for the body. The layer of fat under your skin provides insulation and thin layers of fat protect vital organs.

How much do you need?

Lipids are an essential component of a balanced diet. In the body, lipid molecules can be broken down to make smaller molecules of fatty acids and glycerol.

Some fatty acids, called essential fatty acids, are vital for health. They can be found in foods such as nuts, seeds or fish. ("What are lipids, oils and fats?," n.d, p. 1)

- **Saturated Fat**
 - (Animal Source)
 - Impact on HDL and LDL
- **Trans fat**
 - Processed
 - Impact on HDL and LDL

- Monounsaturated fat: 15% to 20%
- Polyunsaturated fat: 5% to 10%
- Saturated fat: less than 10%
- Trans fat: 0%
- Cholesterol: less than 300 mg per day ("Fat: What You Need to Know," 2014, p. 1)

- **Monounsaturated fatty acids.**
 - Improve blood cholesterol
- **Polyunsaturated fatty acids**
 - Plant Based
 - Improve blood cholesterol
- **Omega-3 fatty acids**
 - Beneficial for heart health



Unhealthy
fats

Not all
fats are
created
equal

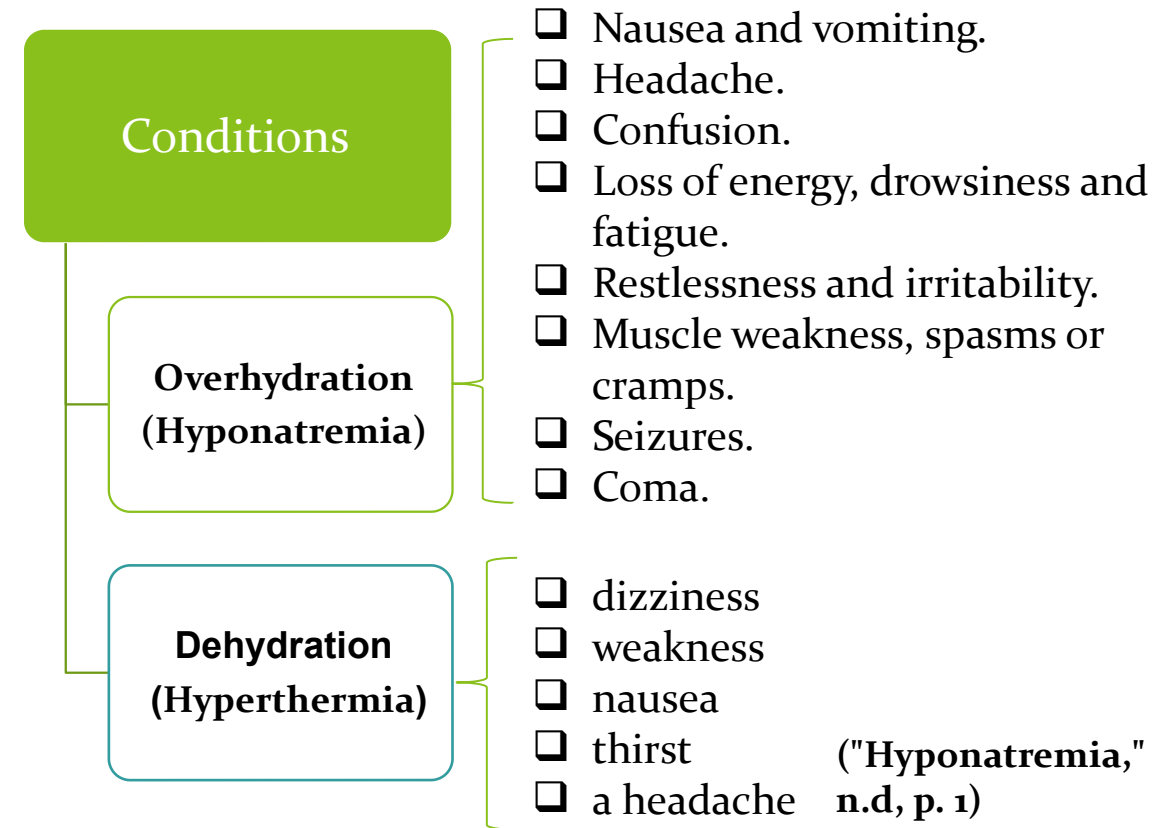
Healthier
fats

Fluids and Electrolytes



Why is fluid intake important?

1. It lubricates the joints
2. It forms saliva and mucus
3. It delivers oxygen throughout the body
4. It boosts skin health and beauty
5. It cushions the brain, spinal cord, and other sensitive tissues
6. It regulates body temperature
7. The digestive system depends on it
8. It flushes body waste
9. It helps maintain blood pressure
10. The airways need it
11. It makes minerals and nutrients accessible
12. It prevents kidney damage
13. It boosts performance during exercise
14. Weight loss
15. It reduces the chance of a hangover (Cross, 2018, p. 1)





Vitamins: to Take or not to Take



Conclusion

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