Ch 41.1 Notes

---------------------------------------------------------------------------------------------------------------------

Vocab

---------------------------------------------------------------------------------------------------------------------

Essential Nutrients: Substances that an animal requires but cannot assemble from simple organic molecules.

Essential Amino Acids: Amino acids which the body can’t produce on its own but instead needs to find them via eating.

Essential Fatty Acids: Fatty acids that can’t be produced by the body (Only Linoleic Acid)

Vitamins: Organic molecules that are required in the diet in very small amounts

Minerals: Inorganic nutrients, such as iron and sulfur; Also required in small amounts

---------------------------------------------------------------------------------------------------------------------

Notes

---------------------------------------------------------------------------------------------------------------------

Needs

Animals have **3 Needs.**

* Chemical energy for cellular processes= ATP
* Organic building blocks for macromolecules
* Essential nutrients

Required by animals, but they can’t assemble.

Essential amino acids, essential fatty acids, vitamins, and minerals

Key functions in cells

Can get them all from plants and animals.

Essential Amino Acids

There are 20 amino acids.

* Animals can make some of them.

Have to eat some because can’t make = essential amino acids

* Isoleucine
* Leucine
* Lysine
* Methionine
* Phenylalanine
* Threonine
* Tryptophan
* Valine
* Histidine (babies only)

A complete protein has all essential amino acids.

Essential Fatty Acids

Can form many fatty acids, but not ones with double bonds.

Need to get from diet = Essential Fatty Acid

* Linoleic acid

Vitamins vs Minerals

Vitamin = Organic (Comes from plants and animals)

Mineral = Inorganic (Doesn’t come from a plant or animal)