

- **If a nutrient is not small enough it cannot? Enter the bloodstream**

- **Break down the Nutrient Molecules:**

Large Nutrient Molecules

Small Molecules

Carbohydrates -----> Polysaccharides -----> Monosaccharides

Lipids -----> Triglycerides -----> FFA and glycerol

Protein -----> Peptides -----> Amino acids

- **Absorption depends on:**

- 1) Size of molecule
- 2) Chemical properties
- 3) Site of absorption

- **ADG- Average daily gain**

- **ADFI- Average daily feed intake**

F:G - Feed efficiency, the lb of feed required to deposit a lb of gain

G:F - gain efficiency, the lb of gain deposited per lb of feed

$$\text{F:G} = \frac{\text{Lb feed}}{\text{Lb Gain}}$$

$$\text{G:F} = \frac{\text{Lb feed}}{\text{Lb Gain}}$$

List the Major Classes of Nutrients:

- 1) Water**
- 2) Proteins**
- 3) Carbohydrates**
- 4) Lipids (Fats)**
- 5) Vitamins**
- 6) Minerals**

Water: 85 to 45% of body weight

Intracellular: Within cells

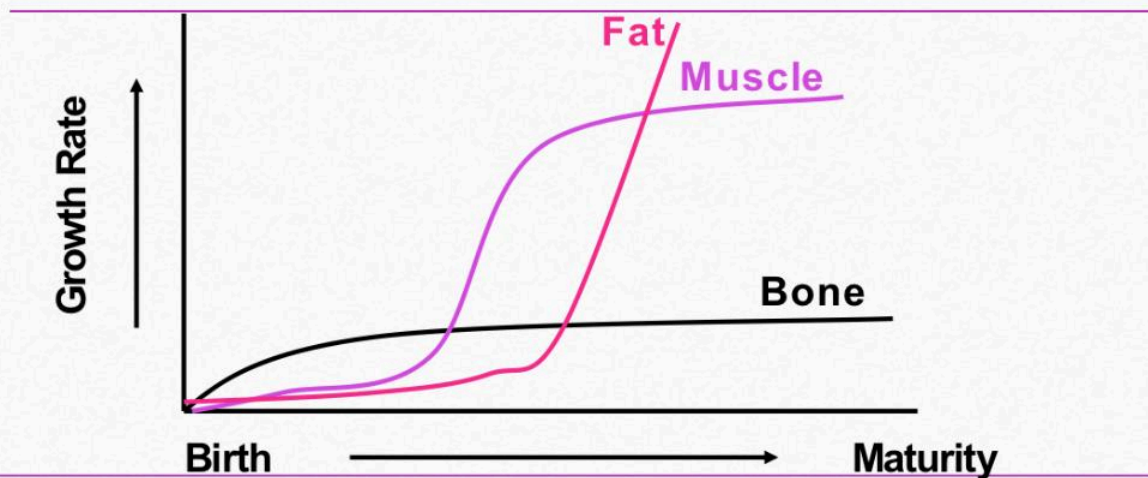
Extracellular: Fluids surrounding cell

Neonate (baby) has: Largest % of body water proportionate to its size

What are 4 functions of water:

- 1) Transport of nutrients
- 2) Solvent for chemical reaction
- 3) Temperature control
- 4) Lubrication

Growth Curves



Animal Response in Relationship to Intake of an Essential Nutrient

