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FUNCTIONAL ANATOMY OF THE DIGESTIVE SYSTEM

On planet earth, all living things require energy to sustain life. Energy that sustains human life is derived from carbon bonds found in nutrients of three forms: carbohydrates, proteins and lipids. Ironically, zero calorie "energy drinks" have absolutely no energy in them, just a little chemical called caffeine that tricks your brain into thinking that you actually give yourself energy. Energy obtained from "real" nutrients is used for movement, growth or is lost as heat. Energy usage is measured as Calories and it has been estimated that a typical healthy young man requires 30Cal/kg body weight for 1 day. Thus, a 70 kg (154lb) person would require 2100 Calories/day. Each gram of food contains a specific number of calories, for example: carbohydrates contain 4.1 Calories per gram and the body can store approximately 3000 calories (1.5 days' worth) of carbohydrate energy. Proteins contain 4.3 Calories/gram and the body can store 21,000 Calories (10 days' worth) of energy. Lipids contain 9.4 Calories/gram and the body can store 131,600 Calories (nearly 9 weeks) of energy. Of course, these numbers are only estimates and can change depending on different needs (starvation) or body type.

Layers of Alimentary Canal of the Digestive System
Enteric Nervous System
Organs of the Digestive System