Introduction
In this chapter (conveniently packaged into five days), study is first on the process of
human digestion and culminates with an important discussion of eating disorders.

The Process of Eating and Digestion
The food processing journey in humans begins with mechanical digestion, that is, the
chomping and chewing of food. Once the food makes its way from the mouth down the
esophagus to the stomach, real chemical digestion begins. Gastric juices, which are
acidic in nature, begin the chemical breakdown of food which then moves through a
sphincter to the small intestine. The small intestine is a tube with many convoluted
twists and turns and protruding structures known as villi. The villi help to increase the
surface area for the absorption of nutrients into the bloodstream. Unfortunately there is
no control function in the digestive process to limit the amount of nutrients absorbed. In
other words, the more one eats, the more nutrients absorbed. Finally, the remaining
waste products left after nutrient absorption pass through the large intestine where
water is reabsorbed into the body. Waste is eliminated from the body as feces.

Respiration in the Cells
Human cells need food material in digested solutions to function and grow. These
materials come to the cells in the form of amino acids, single sugars, fatty acids, and
glycerol. Food molecules are also converted into ATP. Most of these reactions take
place in the mitochondria of the cells. Carbohydrates are the primary source of
energy in the respiration process. Fats and proteins are also sources of energy. All of
these materials along with vitamins are essential in a healthy diet.

Diet and Health
The human digestive system has evolved to adapt to the food consumed for many
years. Only recently has the human diet changed radically. As a result there are
associated problems with poor diet. Some of these problems include obesity and heart
disease. Processed foods, foods low in fiber, and overeating all contribute to these
problems. It is necessary to understand that a diet including vegetables, fruits, whole
grains, and foods rich in protein is essential for good health. The food pyramid is a
graphic picture of good eating practices. Suggested foods on the food pyramid are
somewhat variable in relation to various cultures.

Eating Disorders
Dieting is a common phenomenon in the United States. There has also been an
increase in several common eating disorders. Anorexia nervosa (literally starving
oneself) and bulimia (binge eating and induced vomiting or purging) are disorders found
primarily in adolescent girls. Scientists agree that these conditions are most often
psychological and related to self-esteem among other factors.