

**TABLE 21.4** Key Amino Acids

Amino Acid	Purpose
Alanine	Removal of waste products from the body
Glycine	Wound healing
Arginine	Protein synthesis
Aspartic acid	Synthesis of other amino acids
Cysteine	Immune system function
Glutamine	Synthesis of RNA and DNA
Histidine	Production and synthesis of red blood cells (RBCs) and white blood cells (WBCs)
Lysine	Synthesis of enzymes and other hormones
Methionine	Healthy skin
Phenylalanine	Immune system function
Tryptophan	Appetite
Tyrosine	Production of thyroid hormones

**TABLE 21.5** Examples of Lipid Supplements

Supplement	Purpose
Fish oils	Lower triglycerides in the blood
Inositol	Reduces bad cholesterol, and increases good cholesterol in the blood

**CRITICAL THINKING**

If an athlete takes excessive amounts of vitamins and complains that his urine has changed color and has a strong odor, what is the likely cause?

## HERBAL MEDICINES

Herbs have been used as medications for centuries. Today, the value of the active agents in plant sources as an addition to or instead of artificial sources is gaining wider acceptance. In Chapter 1, the foxglove plant was described as a potent treatment for heart disease that has been in use for hundreds of years. Many people use herbs to self-medicate, such as by drinking chamomile tea for relaxation and insomnia or using aloe vera plants to treat burns. Herbal remedies are not harmful in most cases; however, some herbs can be dangerous if taken in the wrong quantities or when they interact with certain medications. For example, St. John's wort affects the way the liver metabolizes many medications. St. John's wort can make hormonal birth control much less effective, thus leading to unplanned pregnancy.

For the foregoing reasons, it is essential that patients discuss with their physician the herbal remedies they are using, to avoid any detrimental effects from interactions. In addition, because self-medication