INTEGUMENTARY SYSTEM: VULNERABLE BARRIER

The integumentary system consists of the skin, hair, and nails. The skin is the largest organ of the human body and is made of multiple layers, each providing different functions and levels of protection to the body (Fig. 11-1). These layers are the epidermis, dermis, and hypodermis. The skin is one of the most important keys to a healthy body because intact skin provides the greatest defense to invasion by disease-causing microorganisms. Skin has only a few openings, such as the eyes, ears, and nose. The skin is the only barrier our bodies have to the outside world, and it is particularly vulnerable to external injury. Injuries such as abrasions, blisters, calluses, cracks, cuts, irritated areas, inflamed areas, lesions, scrapes, sores, rashes, and sunburn can damage the skin and provide an opening for infection for bacteria, fungi, parasites, or viruses.

Some patients are more susceptible to skin irritations and/or tumors because of a genetic predisposition: their skin may be more delicate. People who have fair skin that has repeated exposure to the sun are more vulnerable to skin damage. Other environmental hazards may be responsible for causing the following skin conditions:

- Skin discoloration
- Alopecia (hair loss)
- Seborrhea (oily skin lesions)
- Psoriasis (scaly patches)
- Verrucae (warts caused by viruses)
- Nevi (moles)
- Tumors

Skin disorders are classified as infectious, inflammatory, or cancerous. The medications used are based on the diagnosis in that classification. These medications are given either topically or systemically, depending on the severity of the skin disorder (see the Master the Essentials table for descriptions of the most common integumentary system drugs).

SKIN INFECTIONS AND MEDICATIONS

As mentioned earlier, bacteria, parasites, viruses, and fungi can invade the body through a skin injury. Different types of medications treat skin infections either topically or systemically, depending on the

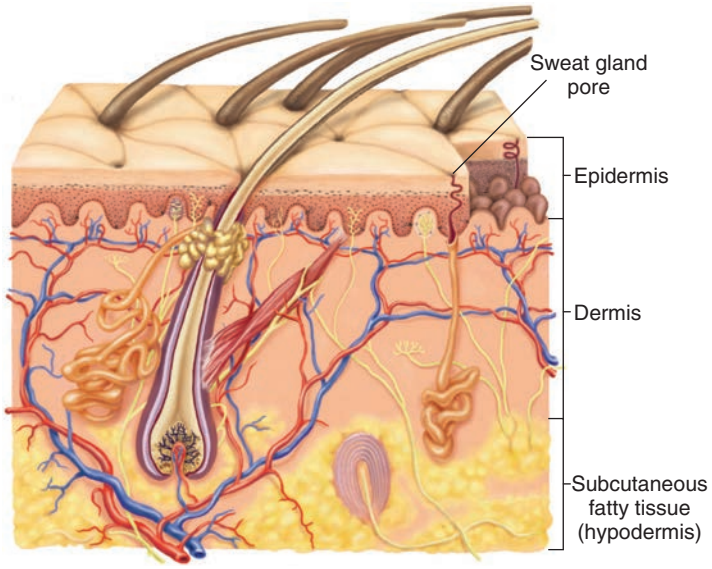

FIGURE 11-1: Layers and structures of the skin.