



FIGURE 13-20 ■ Erythrasma: a bacterial infection (*Corynebacterium minutissimum*). The diffuse brown, scaly plaque resembles tinea cruris.

the Formulary. Lesions may appear to respond quickly, but creams should be applied twice a day for at least 10 days. The fungicidal allylamines (naftifine and terbinafine) and butenafine (allylamine derivative) allow for a shorter duration of treatment compared with fungistatic azoles (clotrimazole, econazole, ketoconazole, oxiconazole, miconazole, and sulconazole).

Moist intertriginous lesions may be contaminated with dermatophytes, other fungi, or bacteria. Antifungal creams with activity against *Candida* and dermatophytes (e.g., miconazole) are applied and covered with a cool, wet Burow's solution, water, or saline compress for 20 to 30 minutes two to six times daily until macerated, wet skin has been dried. The wet dressings are discontinued when the skin is dry, but the cream is continued for at least 14 days or until all evidence of the fungal infection has disappeared. Any residual inflammation from the intertrigo is treated with a group V through VII topical steroid twice a day for a specified length of time (e.g., 5 to 10 days). A limited amount of topical steroid cream is prescribed to discourage long-term use. Absorbent powders, not necessarily medicated (e.g., Z-Sorb), help to control moisture but should not be applied until the inflammation is gone. Resistant infections respond to any of the oral agents listed in [Table 13-2 on p. 514](#).

Lotrisone solution or cream (betamethasone dipropionate/clotrimazole) may be used for initial treatment if lesions are red, inflamed, and itchy. A pure antifungal cream should be used once symptoms are controlled. Prolonged use of this steroid/antifungal preparation may not cure the infection and may cause striae in this intertriginous area.

Systemic therapy is sometimes necessary. Tinea cruris is effectively treated by 50 to 100 mg of fluconazole daily or 150 mg once weekly for 2 to 3 weeks. Itraconazole 100 mg twice daily immediately after meals on days 1 and 8 or on days 1 and 2 may be effective. [PMID: 12950901](#) The standard treatments are itraconazole 100 mg daily for 2 weeks or 200 mg daily for 7 days, or 250 mg terbinafine daily for 1 to 2 weeks. Griseofulvin 500 mg daily for 4 to 6 weeks is also effective.

Tinea of the Body and Face

Tinea of the face (excluding the beard area in men), trunk, and limbs is called tinea corporis ("ringworm of the body"). The disease can occur at any age and is more common in warm climates. There is a broad range of manifestations, with lesions varying in size, degree of inflammation, and depth of involvement. This variability is explained by differences in host immunity and the species of fungus. An epidemic of tinea corporis caused by *Trichophyton tonsurans* was reported in student wrestlers.

Round Annular Lesions. In classic ringworm, lesions begin as flat, scaly spots that then develop a raised border that expands at varying rates in all directions. The advancing, scaly border may have red, raised papules or vesicles. The central area becomes brown or hypopigmented and less scaly as the active border progresses outward ([Figure 13-21](#)). However, it is not uncommon to see several red papules in the central area ([Figure 13-21, D-F](#)). There may be just one ring that grows to a few centimeters in diameter and then resolves or several annular lesions that enlarge to cover large areas of the body surface ([Figures 13-22 and 13-23](#)). These larger lesions tend to be mildly itchy or asymptomatic. They may reach a certain size and remain for years with no tendency to resolve. Clear, central areas of the larger lesions are yellow-brown and usually contain several red papules. The borders are serpiginous or annular and very irregular.

Pityriasis rosea and multiple small annular lesions of ringworm may appear to be similar. However, the scaly ring of pityriasis rosea does not reach the edge of the red border as it does in tinea. Other distinguishing features of pityriasis rosea include rapid onset of lesions and localization of the trunk. Tinea from cats may appear suddenly as multiple round-to-oval plaques on the trunk and extremities.

Tinea Corporis (Tinea Gladiatorum)

Tinea corporis has become common in competitive wrestling. Most reported cases are caused by *T. tonsurans*. Person-to-person contact is probably the main source of transmission. The role of potential asymptomatic carriers of dermatophytes is unknown.

Deep Inflammatory Lesions. Zoophilic fungi such as *Trichophyton verrucosum* from cattle may produce a very inflammatory skin infection ([Figures 13-24, 13-25, and 13-26](#)). The infection is more common in northern regions, where cattle are confined in close quarters during the winter. The round, intensely inflamed lesion has a