

Viruses are intracellular parasites that produce their effect by using the intracellular substances of the host cells. Composed of only a deoxyribonucleic acid or ribonucleic acid core enclosed in an antigenic protein shell, viruses are unable to provide for their own metabolic needs or to reproduce themselves. After a virus penetrates a cell of the host organism, it sheds the outer shell and disappears within the cell, where the nucleic acid core stimulates the host cell to form more virus material from its intracellular substance. In a viral infection, the epidermal cells react with inflammation and vesiculation (as in herpes simplex) or by proliferating to form growths (warts).

Most of the communicable diseases of childhood are associated with rashes, and each rash is characteristic. Common viral disorders of the skin are outlined in [Table 6-4](#).

**TABLE 6-4**  
**Viral Skin Infections**

Disorder and Organism	Manifestations	Management	Comments
Verruca (warts): Human papillomavirus (various types)	Usually well-circumscribed, gray or brown, elevated, firm papules with a roughened, finely papillomatous texture Occur anywhere, but usually appear on exposed areas, such as fingers, hands, face, and soles May be single or multiple Asymptomatic	Not uniformly successful Local destructive therapy, individualized according to location, type, and number—surgical removal, electrocautery, curettage, cryotherapy (liquid nitrogen), caustic solutions (lactic acid and salicylic acid in flexible collodion, retinoic acid, salicylic acid plasters), laser ablation	Common in children Tend to disappear spontaneously Course unpredictable Most destructive techniques tend to leave scars Autoinoculable Repeated irritation will cause to enlarge
Verruca plantaris (plantar wart)	Located on plantar surface of feet and, because of pressure, are practically flat; may be surrounded by a collar of hyperkeratosis	Caustic chemical solution applied to wart, foam insole worn with hole cut to relieve pressure on wart; soaked 20 minutes after 2 to 3 days; procedure repeated until wart comes out	Destructive techniques tend to leave scars, which may cause problems with walking
Cold sore, fever blister: Herpes simplex virus (HSV) type 1 Genital herpes:	Grouped burning and itching vesicles on inflammatory base, usually on or near	Avoidance of secondary infection Burrow solution compresses during weeping stages Oral antiviral (acyclovir [Zovirax]) for initial infection or	Heal without scarring unless secondary infection HSV-1 cold sores