

relatively harmless scorpion stings need to be distinguished from the potentially lethal envenomations that are produced by ~30 of the ~1000 known species and that cause >5000 deaths worldwide each year. Scorpions are nocturnal and remain hidden during the day in crevices or burrows or under wood, loose bark, or rocks. They occasionally enter houses and tents and may hide in shoes, clothing, or bedding. Scorpions sting humans only when threatened.

Of the 40 or so scorpion species in the United States, only bark scorpions (*Centruroides sculpturatus*/*C. exilicauda*) in the Southwest produce venom that is potentially lethal to humans. This venom contains neurotoxins that cause sodium channels to remain open. Such envenomations usually are associated with little swelling, but prominent pain, paresthesia, and hyperesthesia can be accentuated by tapping on the affected area (the *tap test*). These symptoms soon spread to other locations; dysfunction of cranial nerves and hyperexcitability of skeletal muscles develop within hours. Patients present with restlessness, blurred vision, abnormal eye movements, profuse salivation, lacrimation, rhinorrhea, slurred speech, difficulty in handling secretions, diaphoresis, nausea, and vomiting. Muscle twitching, jerking, and shaking may be mistaken for a seizure. Complications include tachycardia, arrhythmias, hypertension, hyperthermia, rhabdomyolysis, and acidosis. Symptoms progress to maximal severity in ~5 h and subside within a day or two, although pain and paresthesia can last for weeks. Fatal respiratory arrest is most common among young children and the elderly.

Envenomations by *Leiurus quinquestriatus* in the Middle East and North Africa, by *Mesobuthus tamulus* in India, by *Androctonus* species along the Mediterranean littoral and in North Africa and the Middle East, and by *Tityus serrulatus* in Brazil cause massive release of endogenous catecholamines with hypertensive crises, arrhythmias, pulmonary edema, and myocardial damage. Acute pancreatitis occurs with stings of *Tityus trinitatis* in Trinidad, and central nervous toxicity complicates stings of *Parabuthus* and *Buthotus* scorpions of South Africa.

In Iran and adjacent countries, *Hemiscorpius lepturus* causes the most scorpion envenomations. Its stings are relatively asymptomatic at first, but its cytotoxic venom causes pain, hemolysis, and tissue