What is rabies, and how is it transmitted?
Rabies is an infectious viral disease that invades the central nervous system of humans and other warm-blooded animals. A wide variety of mammals can contract or transmit the disease, but it is most often noticed in dogs, cats, foxes, raccoons, skunks, coyotes, bats, and livestock. Worldwide, more than 55,000 humans die of rabies each year, primarily from contact with rabid dogs. In the United States, due to highly successful pet-vaccination programs, transmission from dogs is now rare, eliminating the vast majority of human cases.

Rabies is nearly always transmitted by a bite, although non-bite exposures can result from contact between infected saliva or nervous tissues and open wounds or the mucous membranes of the eyes, nose or mouth. Bites during careless handling are the primary source of rabies exposure from bats.

You cannot get rabies from just seeing a bat or simply being in a room with a bat or from contact with bat guano (feces), urine or blood. The vast majority of bats do not have rabies.

Do large bat populations lead to increased incidence of rabies transmission to humans?
The largest urban bat populations consist almost exclusively of colonial species, and there is no evidence linking them to increased transmission to humans. Each summer, tens of thousands of people watch the emergences of 1.5 million Mexican free-tailed bats at the Congress Avenue Bridge in downtown Austin, Texas; in 30 years, no one has been attacked or harmed.

Are bats likely to cause rabies outbreaks in other wildlife or in domestic animals?
There is no evidence that rabies from bats has triggered outbreaks in other animals. It occasionally does spill over into other species, causing individual animals to die, but even this is apparently rare. Despite the fact that numerous carnivores gather to feed on the millions of Mexican free-tailed bats in Central Texas, no outbreaks of rabies are known from this source. No transmission from bats to dogs is known to have occurred, though rare cases of transmission to cats have been documented. The presence or absence of bats is irrelevant to the fact that all dogs and cats should be vaccinated.

What can be done to prevent rabies transmission to humans?
By far the most important prevention is to vaccinate dogs and cats against rabies. Also, children should be warned never to handle any unfamiliar animal. Explain that wild animals that can be touched may be rabid and dangerous. Many grounded bats are not rabid, but taking a careless chance on being bitten could prove fatal. Any animal bite should be reported immediately to a family physician or public health professional for evaluation as a possible rabies exposure.

The U.S. Centers for Disease Control and Prevention recommends pre-exposure vaccinations for people who are at high risk of exposure, such as rabies researchers, veterinarians, field biologists and animal rehabilitators. For those at continued risk of rabies exposure, a booster dose of vaccine or serology may be needed at intervals of six months to two years.

How should potential exposures to bat rabies be evaluated and treated?
Any mammal that bites a human should be evaluated for rabies as soon as possible, and post-exposure treatment should begin immediately unless the animal is confirmed negative. Bat bites are typically felt and detected at the time. However, visual examination for bite marks is unreliable. If visible at all, bites may appear only as a single tiny puncture or scratch. Most punctures are a millimeter or less in diameter, and most bat-inflicted scratch marks are no more than a few millimeters long.

If a child or a mentally incapacitated person is found alone with a bat in the same room and the possibility of a bite cannot be eliminated, post-exposure treatment should be considered unless prompt testing of the bat rules out infection. When questioning about possible exposure, it is essential first to calm fears of painful shots. Today, rabies vaccinations are usually given in the deltoid muscle of the upper arm. For the majority of patients, the post-exposure shots are no more painful than a tetanus or flu vaccination. Also, people who wake up with a bat in the same room where they have been sleeping are advised to submit it for testing if possible, especially if the bat is unable to fly or seems weak.