Herpetologist Alan Savitzky says that snakes are stripped-down vertebrates, missing certain internal organs and with others rearranged. And snakes have their own predators: birds of prey, like owls and falcons, and larger mammals, like raccoons. So it’s not surprising that in the wild they tend to be cautious, even shy, avoiding contact if at all possible with large mammals, including people.

So why are humans, the planet’s top predators, so scared of a little slithering and hissing? Maybe, Savitzky speculates, it’s because of genetic imprinting from the dangers abundant in our evolutionary past. Millions of years ago, mammals were far smaller and routinely susceptible to serpent strikes. “Fear of snakes likely comes from our prehistory, when we were fairly vulnerable living on the African plain,” he says. “Anything long and skinny was potentially a serious threat.”

Of the estimated 2,700-plus snake species, only a relative handful are venomous. In North America, those that do bite to kill don’t pack much of a lethal punch, at least for an adult human. To have an effect beyond the immediate bite site, venom must spread and damage the central nervous system by being carried rapidly throughout the body via the bloodstream and diffused throughout body tissues.

In the unlikely event you are bitten — and it’s not very likely unless you make repeated and deliberate attempts to invade a snake’s space — Savitzky advises relaxation and rest, so as not to circulate potentially deadly toxins. Because even remote sites on the Atlantic coasts are usually within several-hours reach of hospitals or treatment centers, friends or family members should be able to obtain treatment for any snakebite victim well before any permanent damage is done.

“Snakes are quite slow to bite,” Savitzky asserts. “A snakebite is a vanishingly small risk. You have to be both skilled and lucky to come across a venomous individual in the wild.”