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Progress in Fighting Snakebite Deaths

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An eastern diamondback rattlesnake at the home of Chuck Hurd, a Virginia man who collects poisonous snakes

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This is the VOA Special English Health Report.

Researchers are finding new ways to save snakebite victims. Experts discussed the latest findings during a recent meeting of the American Society of Tropical Medicine and Hygiene.

Scientists in Australia have shown that a chemical called nitric oxide could increase the chances of surviving a poisonous snakebite. The scientists injected rats with deadly amounts of snake venom. Then they rubbed an ointment containing nitric oxide on the skin around the injection site.

The study found that the rats lived about one-third longer than if the ointment had not been used. But the treatment had to be started very quickly.

Dirk van Helden led the research at the University of Newcastle in New South Wales. He says the nitric oxide ointment also showed promise in humans. Volunteers were injected with a harmless liquid that contained molecules about the same size as snake venom molecules.

Many snake venoms contain large molecules that can only enter the bloodstream through the body's lymphatic system. The nitric oxide slows the pumping action of the lymphatic system, and that slows the flow of venom into the blood.

The study appeared earlier this year in the journal Nature Medicine. Scientists say the findings could help save many lives. A study from two thousand eight found that poisonous snakes cause as many as ninety-four thousand deaths worldwide each year. But Ulrich Kuch of the Biodiversity and Climate Research Center in Frankfurt, Germany, says that estimate appears to be low.

ULRICH KUCH: "New numbers from very rigorously designed and well-conducted studies in India and Bangladesh have come up with numbers that suggest that the real death toll of snakebites at the global level is much higher."

Mr. Kuch says many deaths could be prevented, but snakebite victims often go to traditional healers or do not seek any help at all.

ULRICH KUCH: "Either because there is no treatment available -- no antivenom, which is the specific drug to treat snakebites -- or because health care staff do not know how to treat snakebites, or because transportation to get to a health facility is not available or too expensive."

There is no single antivenom that can be used to treat all snakebites. The antivenom must be specific to the kind of snake that bit the person. In some countries the treatment is costly, while in others there are problems with availability.

ULRICH KUCH: "For example, antivenoms in India, they are really not expensive. But you do have an issue of distribution and of training people in treating snakebites. In other countries, such as Laos, for example, and many other Asian and African countries, there's no antivenom at all."

Using the correct antivenom is very important. New tests are being developed to help rural health workers know the right one to give.

And that's the VOA Special English Health Report. I'm Christopher Cruise.