

NEWS FROM THE PIT

Arizona Poison and Drug Information Center



Rattlesnake Bites During Pregnancy

A MotherToBaby Arizona perspective

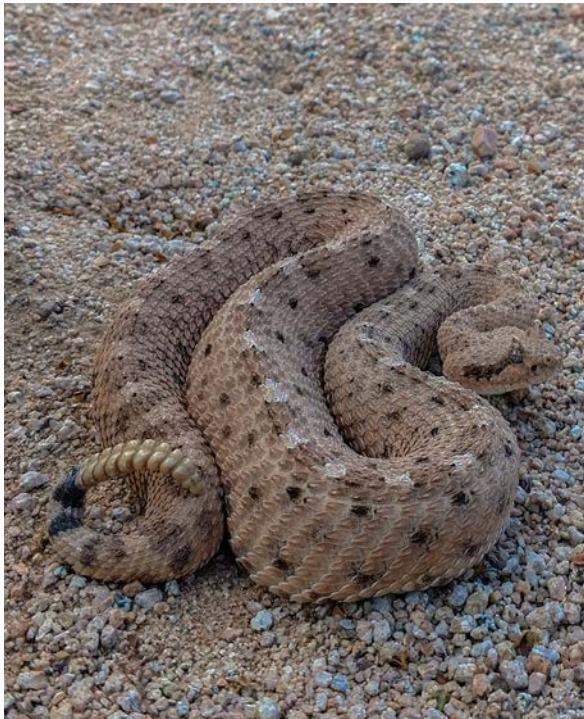
By Chris Stallman, MLS, MS, CGC

As a teratogen information specialist, I receive all kinds of questions about exposures during pregnancy. Most often, the questions are about common exposures: use of prescription medications, supplements, alcohol, and certain foods (such as lunch meats and fish). Some questions are easier to answer than others, and some exposures are less concerning than others. Over the years, I have had my share of questions on uncommon topics as well, such as someone taking a pet's medication, or accidentally touching a bat (You read that correctly). One topic that is uncommon and particularly important is rattlesnake bites during pregnancy. What happens when a person who is pregnant gets bitten by a rattlesnake?

First and foremost: the best thing for anyone to do when they are bitten by a rattlesnake, pregnant or not, is to get help right away. They should not wait until they notice symptoms, and they should not try and treat the bite themselves. More information on rattlesnake bite dos and don'ts can be found here: <https://azpoison.com/venom/rattlesnakes>. With that out of the way, after the person has presented for medical care, what's next? Can they be treated? What are the possible risks to a pregnancy?

NEWSLETTER HIGHLIGHTS

Rattlesnake Bites During Pregnancy



Rattlesnake bites can cause hypotension in the person who is pregnant.



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Not only can someone who is pregnant be treated for a rattlesnake bite, they should be treated as soon as possible. The health of the person who is pregnant is already important by itself, and is also directly linked to the health of a pregnancy. If a person who is pregnant suffers a complication or a fatality, the pregnancy is at risk as well. The benefits of treating the person who is pregnant will more than likely outweigh the risks of an untreated rattlesnake bite.

And what are those risks? In addition to fatality, there are other medical complications that could affect the health of the person who is pregnant and the health of a pregnancy. For example, rattlesnake bites can cause hypotension in the person who is pregnant. This could reduce the rate at which the fetus receives a continuous supply of blood. Hypotension could cause brain damage to the fetus and, in rare cases, could result in stillbirth.

Increased clotting and increased bleeding have also been reported after a rattlesnake bite in patients who are pregnant. It is important to remember that even without a rattlesnake bite, people who are pregnant are 5 times more likely to experience a blood clot compared with people who are not pregnant.¹ Blood clots can reduce or cut off blood flow to the pregnancy. Some blood clots can break off and travel to the lungs (pulmonary embolism) which can be life-threatening. Other medical complications associated with blood clots include miscarriage, stillbirth, growth restriction, thrombosis, placental insufficiency, hypertension, preterm delivery, heart attack, or stroke.

When someone contacts MotherToBaby about any exposure during pregnancy, we begin by telling them that every pregnancy starts out with a 3-5% chance of having a birth defect (called the background risk). Also, miscarriage is common and can occur in any pregnancy for many different reasons. We like to remind people that even with no exposures in pregnancy, there is a chance of adverse outcomes. In fact, pregnancy outcomes in general can be dependent on many factors.

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There are several case reports that describe pregnancy outcomes after a rattlesnake bite. Birth defects, hydrocephalus, and dilatation of the ventricles and intracranial hemorrhage have been reported. It's important to note that these case reports do not establish a causal connection between the snake venom and the adverse outcomes. Other reported symptoms and outcomes include reduced fetal movements, maternal recurrent or late coagulopathy, other maternal illness, placental abruption associated with a hypercoagulability, miscarriage, stillbirth, and maternal death.

There are also reports of healthy, live births after treatment with antivenom, even though information on rattlesnake bites and the use of antivenom during pregnancy is limited. The FDA product label for CROFAB states, "It is also not known whether CROFAB can cause fetal harm when administered to a pregnant woman."² However, in general, the benefits of treating a rattlesnake bite with antivenom outweigh the risks of untreated illness during pregnancy.

In addition to antivenom, laboratory testing is indicated, as it is for all people who are bitten by a rattlesnake. Extra considerations for pregnancy have been suggested by some authors, including monitoring of fetal movement and fetal heart rate. The few reports of follow up on infants exposed to antivenom have not indicated any long-term medical concerns.

Rattlesnake bites in pregnancy are an uncommon but serious exposure. Time is of the essence and treatment should be sought and administered right away. It's important to consider both the health of the person who is pregnant and the health of the pregnancy. Although there are things we don't know about rattlesnake bites in pregnancy and the use of antivenom, treatment and monitoring are likely going to be recommended. It's also a good idea for everyone to review ways to avoid rattlesnake bites. I would suggest people avoid taking a pet's medication as well.

References

1. Centers for Disease Control and Prevention (2022). Pregnant? Don't overlook blood clots. www.cdc.gov/ncbddd/dvt/features/blood-clots-pregnant-women.html#:~:text=Although%20anyone%20can%20develop%20a,women%20who%20are%20not%20pregnant. Published June 9, 2022. Accessed July 26, 2022.
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