



2019 ANNUAL REPORT

**ARIZONA POISON AND DRUG
INFORMATION CENTER**

University of Arizona College of Pharmacy

ARIZONA
Poison and Drug
Information Center



 **1-800-222-1222**

A YEAR'S OVERVIEW

WHERE WE ARE NOW

Welcome to the 2019 Arizona Poison and Drug Information Center (AzPDIC) Annual Report! This report summarizes the activities of the AzPDIC during our 64th year of service.

During 2019, the AzPDIC accomplished some amazing things:

- We led the Arizona response, in partnership with the Arizona Department of Health Services, for vaping associated pulmonary illness.
- We were awarded a MobilizeAZ grant through Blue Cross Blue Shield of Arizona to train the public in Cochise County on opioid overdose prevention and naloxone administration.
- We participated in the Tucson Festival of Books for the 8th straight year, spreading the poison prevention message to more than 5,000 participants.
- We implemented the Scholastic OTC Medicine Safety program in four Title I elementary schools during the fall semester.
- We volunteered to assemble naloxone kits for Sonoran Prevention Works, a comprehensive harm reduction organization.
- We created an Instagram account in late December 2018. By the end of 2019, our account grew to over 165 followers.
- Our reptile curator expanded our collection of rotating snakes (and antivenom) to include exotic species, such as an Egyptian Cobra (*Naja haje*).
- We were interviewed for 19 media articles by local news stations. The most popular topic was vaping.
- We initiated a volunteer program for undergraduate and graduate students interested in health sciences at the University of Arizona.

In 2020, the AzPDIC remains committed to maintaining excellent standards of care in our service area.

24,721 total cases in 2019



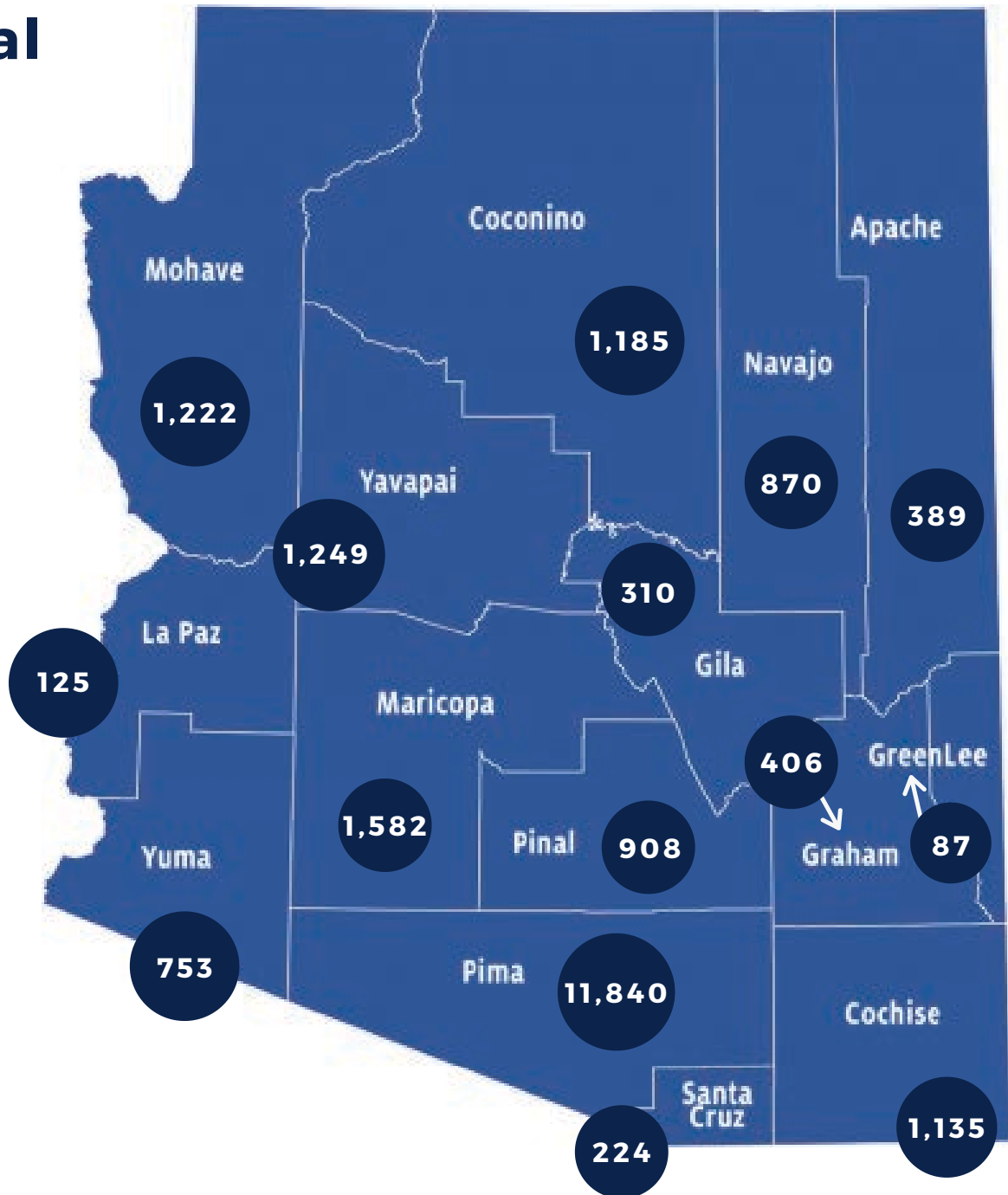
Animal Exposures
988



Human Exposures
17,378



Information Requests
6,355



HUMAN EXPOSURES BY COUNTY

Total cases include exposures (all species), information calls, and calls originating from states outside of Arizona answered by the AzPDIC.

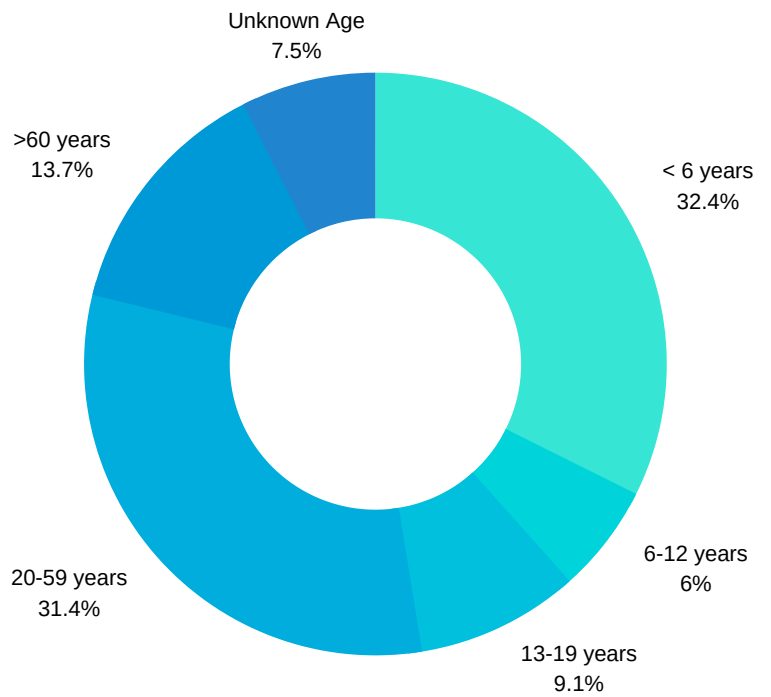
Calls to poison centers are routed by area code. Service area crossover between Arizona's two poison centers often occurs. Banner Poison and Drug Information Center serves Maricopa County.

HUMAN EXPOSURES

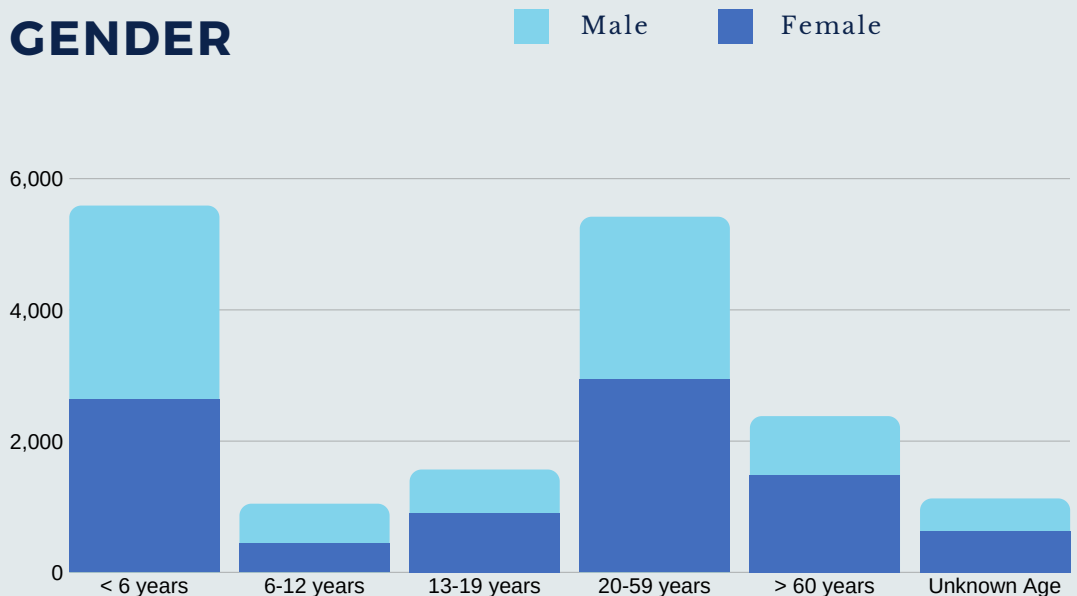
In 2019, the AzPDIC received a total of 17,378 human exposure cases.



EXPOSURES BY AGE



GENDER



2019

EXPOSURE STATISTICS

The majority (90%) of residential exposures were unintentional. Of unintentional exposures at home, 14% were attributed to a bite or sting and 18% were attributed to therapeutic error.

5%
of "other/unknown" caller sites were from a jail/prison

SITE OF CALLER



RESIDENCE
60% (10,334)



HEALTH CARE FACILITY
29% (5,076)



EMS PROVIDER
4% (673)



WORKPLACE
0.8% (142)



SCHOOL
1.6% (278)



OTHER/UNKNOWN
4% (759)



MANAGEMENT SITE

Managing cases safely at home saves millions of dollars in unnecessary health care costs compared with managing patients in a health care facility (HCF). It also allows for more efficient and effective use of limited health care resources.

Other/Unknown
3.3%

Managed in HCF
39.9%

Managed on Site/Non-HCF
56.8%

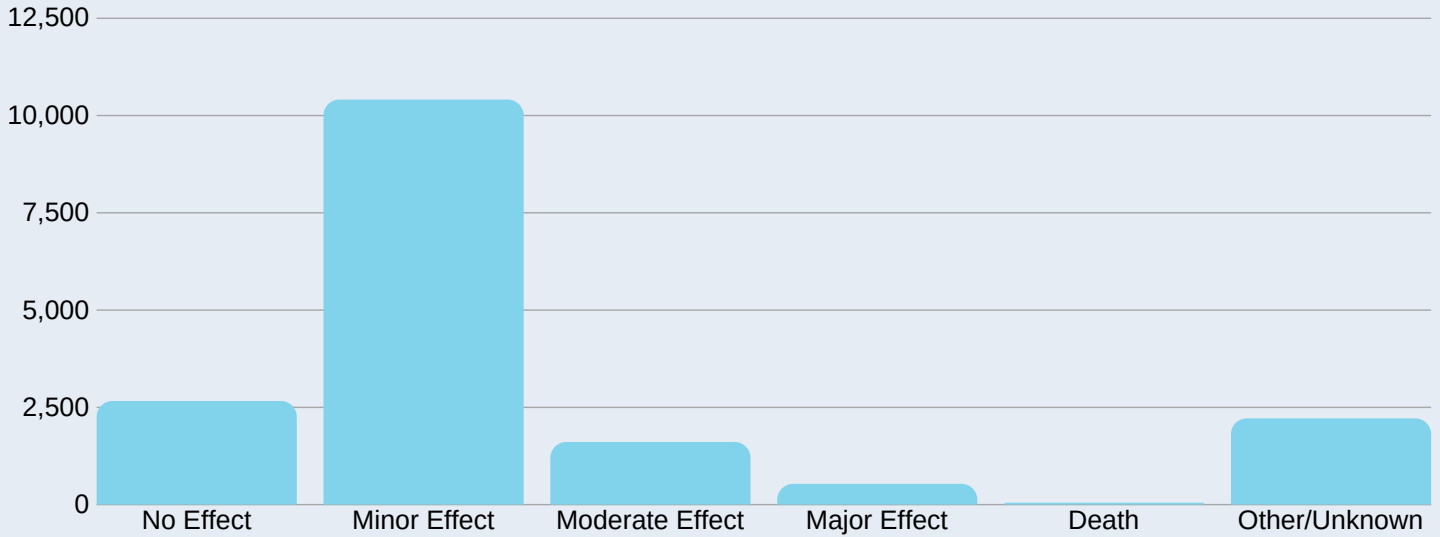
Approximately 45% of cases managed at home are among children under 6 years of age.

In comparison, 61% of cases managed in a healthcare facility are among adults over 20 years of age. Adult poisonings typically result in more deaths and serious injuries than any other age group.



MEDICAL OUTCOMES

The true measure of effectiveness is in patient outcomes. The majority of cases handled by the AzPDIC had good outcomes in 2019.



The table below is a breakdown of dollars saved in unnecessary medical expenditures per Arizona county in 2018.

COUNTY ER DOLLARS SAVED

Apache	\$244,680.00
Cochise	\$1,145,918.00
Coconino	\$1,194,854.00
Gila	\$157,003.00
Graham	\$505,672.00
Greenlee	\$152,925.00
La Paz	\$85,638.00
Maricopa*	\$4,638,725.00
Mohave	\$1,168,347.00
Navajo	\$831,912.00
Pima	\$12,180,986.00
Pinal	\$1,512,938.00
Santa Cruz	\$281,382.00
Yavapai	\$1,935,011.00
Yuma	\$872,692.00
TOTAL SAVINGS.....	\$26,908,683.00

\$26
MILLION PER YEAR

*Calls to poison centers are routed by area code. Patients with non-Maricopa County area codes are routed to AzPDIC even if they live in Maricopa County. Banner Poison and Drug Information Center covers Maricopa County.

SUBSTANCES INVOLVED IN POISONINGS

The tables below list the most common substances involved in human exposures reported to the AzPDIC in 2019. A patient may be exposed to more than one substance in a poisoning or overdose case.

Top 10

Drug Substances	No.	%
Analgesics.....	2,406	13.85
Antidepressants.....	1,123	6.46
Sedative/hypnotic/ antipsychotic.....	1,066	6.13
Antihistamines.....	956	5.50
Cardiovascular drugs.....	886	5.10
Anticonvulsants.....	655	3.77
Stimulants and street drugs.....	531	3.10
Hormone and hormone antagonists.....	514	2.96
Dietary supplements/ herbals/homeopathic.....	434	2.50
Cold and cough preparations.....	406	2.34

Top 10

Non-Drug Substances	No.	%
Bites and stings.....	1,804	10.38
Cleaning substances (household).....	1,178	6.78
Cosmetics/personal care products.....	1,006	5.79
Alcohols.....	756	4.35
Foreign bodies/toys/ miscellaneous.....	605	3.48
Pesticides.....	434	2.50
Chemicals.....	373	2.15
Plants.....	347	1.99
Hydrocarbons.....	225	1.29
Fumes/gases/ vapors.....	222	1.27



SUBSTANCES BY AGE

The tables below list the most common substances involved in human exposures stratified by age.

Top 10 Substances

Pediatric (<6 years)

	No.	%
Cosmetics/personal care products.....	639	11.36
Cleaning substances (household).....	638	11.35
Analgesics.....	537	9.55
Foreign bodies/toys/miscellaneous.....	407	7.24
Dietary supplements/herbals/homeopathic.....	277	4.93
Antihistamines.....	276	4.91
Topical preparations.....	240	4.27
Vitamins.....	212	3.77
Bites/stings.....	205	3.65
Gastrointestinal preparations.....	165	2.93

Top 10 Substances

Adult (>20 years)

	No.	%
Analgesics.....	1,300	16.60
Bites/stings.....	1,163	14.85
Sedative/hypnotic/antipsychotic.....	775	9.90
Antidepressants.....	730	9.32
Cardiovascular drugs.....	628	8.02
Alcohols.....	608	7.76
Anticonvulsants.....	493	6.30
Antihistamines.....	420	5.36
Cleaning substances (household).....	370	4.72
Hormone and hormone antagonists.....	316	4.04



OPIOID ASSISTANCE AND REFERRAL LINE

In 2019, the OAR Line received a total of 647 cases statewide.*

1-888-688-4222

The Opioid Assistance and Referral Line is a joint effort between the Arizona Department of Health Sciences (ADHS) and Arizona's two poison centers. Services include referrals for opioid treatment or pain specialists, concerns about the use of opioids, safe use of opioids for acute or chronic pain, education about naloxone, opioid laws and prescribing guidelines, and opioid use during pregnancy or breastfeeding.

*Many opioid-related exposures and questions are answered by the regular poison center number. The number of cases received by the OAR Line does not include all human opioid exposures cases and information requests in Arizona.



314

OAR Line cases
in 2019 (AzPDIC)



685

human opioid
exposure cases
(AzPDIC)



665

information
requests about
opioids (AzPDIC)



The reason for poison exposures differs by age. In young children (<6 years), 99% of exposures are unintentional. In teens (13-19 years), only 29% of exposures are unintentional (with 66% being intentional). Adults (>20 years) are more evenly split, with 57% being unintentional and 33% being intentional.

<p>UNINTENTIONAL</p> <p>70.7% (12,291)</p>	<p>UNINTENTIONAL EXPOSURES:</p> <ul style="list-style-type: none"> • general misuse of products • occupational (workplace) • environmental • bites/stings • therapeutic errors • food poisoning
<p>INTENTIONAL</p> <p>22.5% (3,917)</p>	<p>INTENTIONAL EXPOSURES:</p> <ul style="list-style-type: none"> • misuse • abuse • suicide attempts
<p>ADVERSE REACTION</p> <p>4.38% (761)</p>	<p>ADVERSE REACTIONS TO:</p> <ul style="list-style-type: none"> • drugs • food • other substances
<p>OTHER/ UNKNOWN</p> <p>2.35% (409)</p>	<p>OTHER/UNKNOWN REASONS:</p> <ul style="list-style-type: none"> • malicious • contaminant/tampering • withdrawal




CIRCUMSTANCE

ROUTE OF EXPOSURE




Dermal

7% (1,147)




Ingestion

75% (13,045)




Inhalation

6% (1,065)




Bite/Sting

11% (1,772)



Ocular

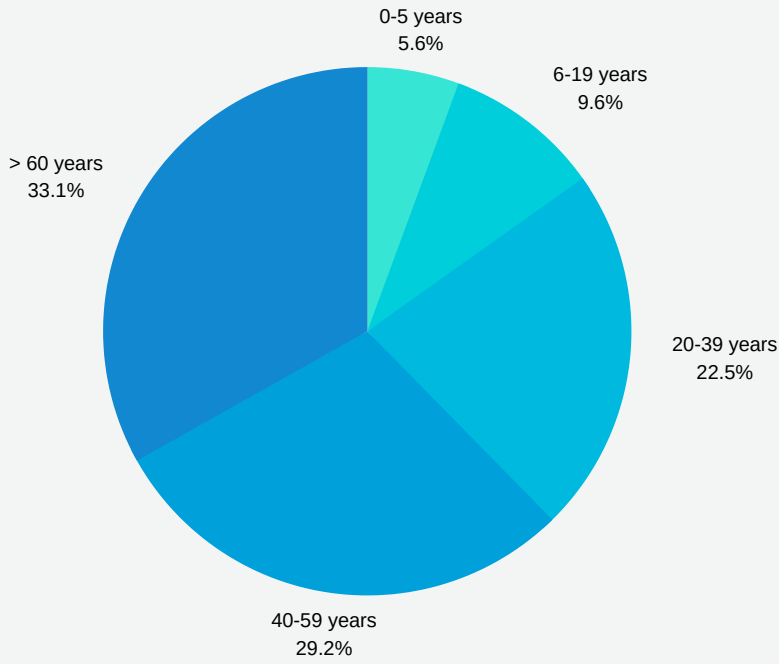
4% (701)



Other

3% (569)

RATTLESNAKE BITES BY AGE

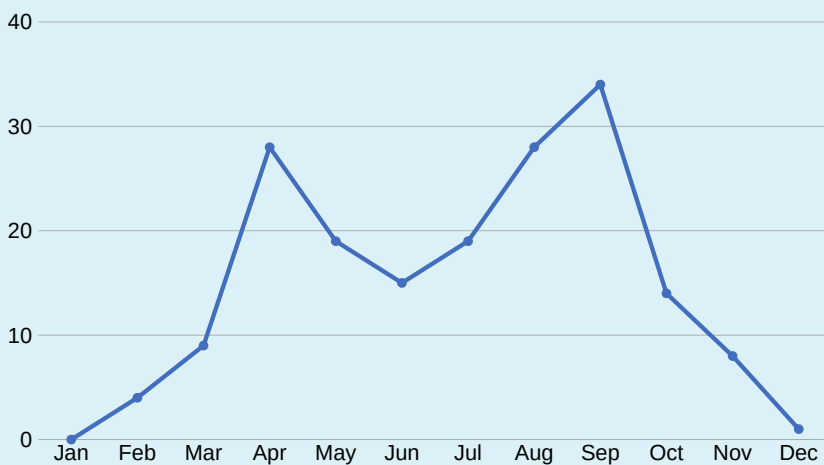


BITES AND STINGS

In 2019, the AzPDIC received 1,786 bite/sting cases.



RATTLESNAKE BITES BY MONTH



The AzPDIC specializes in envenomations cases, predominately rattlesnake bites.

Rattlesnake bites increased 15% from 2018 to 2019 (156 bites to 179 bites). The 2019 rattlesnake bite season saw two peaks, one in April and one in September.

Scorpion sting cases decreased slightly in 2019, from 1,598 in 2018 to 1,085 (32% decrease).



179 Rattlesnake Bites



1,085 Scorpion Stings



40 Spider Bites (Black Widow and Arizona Brown Spider)



1 Gila Monster Bite



92 Bee/Wasp/Hornet Stings

PUBLIC EDUCATION HIGHLIGHTS

Our focus:

1. Increase public awareness of potentially dangerous substances in everyday life.
2. Help prevent poisonings from occurring by developing and encouraging poison prevention skills.
3. Highlight the expertise of the staff at the AzPDIC and its many valuable services.



108 events in four counties attended by 15,619 people



28 health fairs



80 presentations/trainings



More than 32,000 pieces of educational materials distributed

COCHISE COUNTY: OPIOIDS & YOU

In 2018, the AzPDIC launched a new opioid overdose prevention and naloxone administration training program, "Opioids and You", in Cochise County, with the purpose of expanding the role of the Opioid Assistance and Referral Line in rural Arizona.

Participants were expected to recognize an opioid overdose and demonstrate ability to respond using naloxone by the end of the training.

Education staff completed 12 trainings across three cities in Cochise County, reaching 241 participants. Over 300 naloxone kits were distributed.

Evaluation results show that after the training, 95% of participants reported being able to administer naloxone, compared to 8% before training.



MEDIA HIGHLIGHTS



1,725

Facebook
follows



165

Instagram
followers



I cannot say enough good things about Poison Control. They have helped me four different times, and each time are knowledgeable and give clear directions. I really appreciate the help! The last time I called they handled everything.

-Satisfied Caller



19

Media
interviews



50,964

Website
sessions

FIND US ONLINE



www.azpoison.com



@AZPDIC



@azpoisoncenter



www.facebook.com/AzPDIC



RATTLESNAKES ARE COMING

Most popular Facebook post in 2019:

8,802 people reached

254 reactions, comments, and shares

571 post clicks



Arizona Poison & Drug Information Center

May 31, 2019 · 🌐

Ditch the tourniquet and suction cup! The best first aid for a rattlesnake bite is no first aid. Get to the hospital as quickly as possible, remain calm, and remove any restrictive clothing or jewelry. Antivenom is the only treatment for a rattlesnake bite, no matter the species!



WHAT IS THE BEST
SNAKEBITE

KIT?



Car Keys + Cellphone

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Image: AzPDIC, past and present