Georgia Poison Center

Protecting you through poison emergencies 2018 Annual Report



The Georgia Poison Center is committed to providing high quality poison center services to Georgia healthcare professionals and the residents of Georgia.

Our goal is to deliver prompt and accurate poison information to those who access our services. We continuously strive to:

- Educate residents of Georgia in the areas of poison prevention and firstaid
- Educate Georgia healthcare professionals in the areas of clinical toxicology, poisoning epidemiology, poison prevention, toxicology diagnosis and care
- Provide stable and continuous delivery of quality poison center services to Georgians

The Georgia Poison Center is one of the busiest poison centers in the country, and the only center in Georgia. We are staffed 24 hours a day, 365 days a year by highly skilled pharmacists, nurses, physicians, and other poison experts, offering confidential advice on poison diagnosis, treatment, and information.

In 2018, The Georgia Poison Center handled **81,083** incoming calls involving poison emergencies and information. Of these calls:

- 69,896 were human poison exposure cases reported to us
- 2,576 cases were due to an animal poison exposure
- 8,611 calls were for general poison information
- 25,446 cases were referred to us from healthcare professionals
- In addition, 64,188 follow-ups were performed

Georgia Poison Center





It should come as no surprise that over 50% of our calls are about children being poisoned.

Some of the reasons include, but are not limited to: curiosity, mobility, handto-mouth behavior, imitation, immature taste buds, and look-a-likes. While children are more often exposed to poisons, adults suffer more serious poisoning injuries and death.
This is often a result of: Sedative/hypnotics, antipsychotics, stimulants and street drugs, opioids and alcohol.

Top 10 Substances: All Ages

- 1. Analgesics = 11.42% (like Motrin® and Tylenol®)
- 2. Cleaning Substances (Household) = 6.81% (like bleach and dish detergent)
- 3. Cosmetics/Personal Care Products = 5.84% (like perfume, shampoo, and toothpaste)
- 4. Sedative/Hypnotics/Antipsychotics = 5.68% (like Valium®, Prolixin®, and Ambien ®)
- 5. Antihistamines = 4.92% (like Allegra® and Benadryl®)

- 6. Antidepressants = 4.79% (like Wellbutrin® and Cymbalta®)
- 7. Bites and Envenomations = 4.44% (like snakes, spiders, and ants)
- 8. Cardiovascular Drugs = 4.43% (like Lipitor® and Niaspan®)
- 9. Pesticides = 3.37% (like Roundup® and Sevin®)
- Foreign Bodies/Toys/Miscellaneous = 3.24% (like coins, batteries, and silica gel packs)

Top 5 Substances: By Age

CHILDREN <6 YEARS

ADULTS >19 YEARS





Route of Exposure

There are several different ways a poison can enter the body. How a person is exposed to a poison is called the "route of exposure". The most common route of an exposure to a poisonous substance is through eating or drinking (ingestion).

Route of Exposure	Number	Percent
Ingestion	55,728	75.84%
Dermal	5,258	7.16%
Inhalation/Nasal	4,439	6.04%
Bite/Sting	3,473	4.73%
Ocular	2,770	3.77%
Other/Unknown	983	1.33%

Exposure Reason

Unintentional/Accidental		
General (all unintended exposures that are not listed below)	47.0%	
Therapeutic Error (wrong dose, wrong person, wrong substance, or incorrect route of administration)	13.6%	75.9%
Misuse	5.9%	
Bite/Sting	5.0%	
Environmental	2.3%	
Occupational	1.1%	
Food Poisoning	0.9%	
Unknown	0.2%	
Intentional		
Suspected Suicide	14.1%	
Misuse	2.8%	19.6%
Abuse	1.7%	
Unknown	0.9%	
Adverse Reaction		
Drug	1.8%	
Other	0.4%	2.4%
Food	0.2%	
Other		
Unknown reason	0.8%	
Contamination/tampering	0.7%	2.1%
Malicious	0.4%	
Withdrawal	0.3%	

Site of the Caller & Exposure

The majority of our calls start in the home setting. However, over one-quarter of our calls came from doctors, nurses and other healthcare professionals seeking treatment advice on a drug or a poisoning related incident.

SITE	Site of Caller	Site of Exposure
Residence	65.30%	89.82%
Workplace	1.11%	1.82%
Healthcare Facility	27.24%	0.33%
School	0.36%	1.60%
Restaurant/Food Service	0.02%	0.31%
Public Area	0.33%	1.38%
Other/Unknown	5.66%	4.74%

A call to the poison center provides a rapid, individualized, cost-effective answer to a poison exposure, and often avoids expensive trips to the emergency department or doctor's office. All of our calls are handled by highly trained, experienced, and dedicated health professionals (such as pharmacists, nurses, physicians, and other poison specialists).

MANAGEMENT SITE

Other/Unknown 2.4%

Healthcare facility 35.5%

Refused referral 1.0%

Nearly 2/3 of people who contact us do not need any additional care, and can be effectively managed at home with treatment advice and instructions regarding symptoms of concern. This avoids unnecessary trips to the emergency department and saves Americans billions every year in medical costs and lost productivity.

On Site (non healthcare facility) 61.1%

Patient Therapy & Outcome

Decontamination Techniques	Number
Dilute/Irrigate/Wash	19,393
Food/Snack	2.669
Fresh Air	1,944
Charcoal, single dose	1,665
Other Emetic (induce vomiting)	829
Cathartic (substance that accelerated the elimination of feces)	781
Whole Bowel Irrigation (flushing out the stomach and intestines)	35
Charcoal, multiple dose	30
Lavage	11
(cleansing of a hollow organ)	
(cleansing of a hollow organ) Other Therapies – Top 10	Number
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV	Number 5,070
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV Other	Number 5,070 3,112
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV Other Oxygen	Number 5,070 3,112 1,467
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV Other Oxygen Antibiotics	Number 5,070 3,112 1,467 1,306
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV Other Oxygen Antibiotics Benzodiazepines	Number 5,070 3,112 1,467 1,306 1,180
(cleansing of a hollow organ) Other Therapies – Top 10 Fluids, IV Other Oxygen Antibiotics Benzodiazepines Sedation (other)	Number 5,070 3,112 1,467 1,306 1,180 913
Carrage (cleansing of a hollow organ)Other Therapies – Top 10Fluids, IVOtherOxygenAntibioticsBenzodiazepinesSedation (other)Naloxone	Number 5,070 3,112 1,467 1,306 1,180 913 874
Carrage (cleansing of a hollow organ)Other Therapies – Top 10Fluids, IVOtherOtherOxygenAntibioticsBenzodiazepinesSedation (other)NaloxoneAnti-emetics	Number 5,070 3,112 1,467 1,306 1,180 913 874 753
Carrage(cleansing of a hollow organ)Other Therapies – Top 10Fluids, IVOtherOtherOxygenAntibioticsBenzodiazepinesSedation (other)NaloxoneAnti-emeticsIntubation	Number 5,070 3,112 1,467 1,306 1,180 913 874 753 704

Outcome	Number
No Effect	4,831
Minor or Moderate Effect	13,980
Major Effect	1,097
Death	53
No follow-up, nontoxic	2,026
No follow-up, minimal or potentially toxic	44,504
Unrelated effect	2,528
Death, indirect report	8

Education

The Georgia Poison Center is known for being an emergency telephone service that helps those who have been poisoned. It is also known for the education efforts that are put forth to the entire state of Georgia. Our public education efforts are intended to help increase the awareness of poison prevention and to communicate how to reach us for a poison emergency or poison information.

The Georgia Poison Center and partner organizations provided speakers and/or materials for over **275** programs, reaching more than **37,000** people during 2018.

In 2017, the Georgia Poison Center provided **7** emergency preparedness classes to over **125** participants across the state with a targeted audience of physicians, nurses, paramedics, pharmacists, and other health care professionals who are first responders to hazardous incidents. Classes offered included: Advanced Hazmat Life Support (AHLS); Nuclear Plant Emergency Response (NPER); Radiological Preparedness and Emergency Response (RPER); and Explosion & Blast Injuries.

The Georgia Poison Center is also a training site for health care professionals. Emergency medicine and pediatric residents from Emory University School of Medicine train at the Georgia Poison Center on an ongoing basis. During their training, these residents have the opportunity to see how a poison center operates, become familiar with the resources that are available in the center, and assist in consulting on poisoned patients admitted to local health care facilities. Fourth year pharmacy students from PCOM, Mercer University, and the University of the South are also trained here. Students are introduced to the topic of clinical toxicology through one-onone tutorials and hands-on activities with the guidance of toxicologists and certified specialists in poison information.

Poster Contest

During the third week in March, the Georgia Poison Center celebrates National Poison Prevention Week (NPPW) and coordinates poison prevention activities throughout the state, in collaboration with pharmacies, hospitals, schools, child care providers, and other agencies concerned with the health and safety of their communities.

As part of our celebration of NPPW, we host a statewide poison prevention poster and video contest to children in grades PreK-12 to engage the community in helping to ensure the safety of children and adults. The state submissions are judged by Georgia Poison Center staff and forwarded to the National Poison Prevention Week Council for a nationwide contest. Since 2012, the Georgia Poison Center contestants have won at the National Level, with a record of three 1st place, one 2nd place, and one 3rd place winners.







Selected Research & Publications

- Clinical prediction rule for torsade de pointes in patients with drug-induced QT prolongation-Rittirak Othong, Warisa Prasertsup and Ziad Kazzi
- Bidirectional ventricular tachycardia and hyperkalemia after *Nerium oleander* ingestion that responded to high-dose of digoxin-immune fragments- Muhammad Sheeha, Waleed Alsukaiti, Ziad Kazzi and Musa Alfaifi
- The risk of seizure after naloxone administration in tramadol exposures- Musa Alfaifi, Robert J. Geller, Timothy Moran, Waleed Alsukaiti, Stephanie Hon, Muhammad Sheeha and Ziad Kazzi
- Utilizing a poison center electronic medical record to facilitate real-time studies- Robert J. Geller, Jay Schauben and Toxsentry Study Group
- **Revisiting pill and capsule ingestions by children: when, where, how-** Maneesha Agarwal, Robert J. Geller, Brent Morgan, Adam Pomerleau and Toxsentry Study Group
- Toxicological treatment recommendation compliance rate with poison center recommendations- Brian Murray, Camille Dunkley, Joseph Carpenter, Robert J. Geller and Melissa Gittinger
- Quetiapine ingestions in the pediatric population: a descriptive analysis of cases from four regional poison centers- Lloyd Herrington, Alfred Aleguas, Stephanie Hon and Robert J. Geller
- Accuracy of product identification for acetaminophen products in the National Poison Data System- Randy I. Burnham, Kate M. Reynolds, Randy Badillo, Robert J. Geller, Amanda Lynn, Monica Peters, Kelsey L Stokkeland, Desiree M Zink and Richard C. Dart
- Outreach on the web: collaborating coast to coast- Britni Overall and Gaylord Lopez
- "Thinking (2700 miles) outside of the box"- Christopher White, Alison Jones and Gaylord Lopez

Leadership

Director Gaylord P. Lopez, PharmD, DABAT

Assistant Director Stephanie L. Hon, PharmD, DABAT

Medical Director Robert J. Geller, MD, FAAP, FACMT

Associate Medical Director Brent W. Morgan, MD, FAAEM, ACMT

Assistant Medical Director Ziad N. Kazzi, MD, FAAEM, FACMT

Assistant Medical Director Melissa Gittinger, DO, FACMT

Assistant Medical Director Alaina Steck, MD

Medical Toxicologists Toxicology Fellows Specialists in Poison Information (SPIs) Information Technology Staff Data Manager Education Staff Executive Assistants Public Health Professionals





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