

web**POISONCONTROL** FAQ

What is web**POISONCONTROL**?

web**POISONCONTROL** is an innovative, online triage tool and app that guides users faced with a poison emergency through a series of simple questions to determine the toxicity. It helps you decide what to do when substances are swallowed, splashed in the eye or on the skin, inhaled, or injected. After providing the name of the substance, amount, age and weight, the user is given a case-specific recommendation. That recommendation could be that it's safe to stay home because toxicity is minimal, that Emergency Room (ER) evaluation is required, or that further guidance from Poison Control (a phone call to 1-800-222-1222) is needed. When it's safe to stay home, the user is also given information on specific symptoms that are likely to occur and not of concern, and symptoms that should trigger a call to Poison Control or an ER visit, should they develop.

Who are we?

web**POISONCONTROL** is brought to you by a group of forward-thinking poison control centers. It's the first fully-automated virtual poison center. As an interactive tool, it guides you through a specific poison exposure situation just as poison control centers would do if you called. The logic, algorithms and recommendations that power the tool are written by board-certified toxicology experts, each with decades of experience in poison control. The project was conducted under the auspices of the National Capital Poison Center in Washington, DC. These are the ten accredited poison control centers that are participating in the web**POISONCONTROL** project:

- [National Capital Poison Center](#) - Washington, DC
- [New Mexico Poison and Drug Information Center](#) - Albuquerque, NM
- [Minnesota Poison Control System](#) - Minneapolis, MN
- [Carolinas Poison Center](#) - Charlotte, NC
- [Nebraska Regional Poison Center](#) - Omaha, NE
- [Cincinnati Drug and Poison Information Center](#) - Cincinnati, OH
- [Utah Poison Control Center](#) - Salt Lake City, UT
- [Virginia Poison Center](#) – Richmond, VA
- [Tennessee Poison Center](#) – Nashville, TN
- West Texas Regional Poison Center – El Paso, TX

How do I find or download web**POISONCONTROL**?

web**POISONCONTROL** is an online web tool (www.webpoisoncontrol.org) as well as a free mobile app downloadable on the [App Store](#) or on [Google play](#). The mobile app offers the additional feature of product barcode scanning, saving the user the time it takes to type and search for a product name. Parents and childcare providers are encouraged to be prepared for a poison emergency: download the app to your mobile device *before* you need it! While the triage tool is the unique component of web**POISONCONTROL**, the online version has an accompanying pill identifier, scores of articles on specific poisons with toxicity information and prevention tips, downloadable prevention materials and a summary of poisoning stats. The site also offers an opportunity to [subscribe](#) to the free poison safety e-newsletter: The Poison Post[®].

Why should I seek Poison Control advice?

Expert guidance at the time of a poison emergency means that the best care is delivered quickly. Without poison control guidance, too many people just guess - resulting in needless ER visits for those who don't need to see a doctor, and dire outcomes for those who stay home when they should have sought medical care. It's widely accepted that poison control advice, provided by experts at the time of a possible poison emergency, is both life-saving and cost-saving.

Why was web**POISONCONTROL** developed?

Over the past decade, there's been a change in the way people access health information and receive assistance during medical emergencies. According to the U.S. Census Bureau, 83.8% of U.S. households owned computers and 73.4% had high-speed internet connections in 2013. Seventy-two percent of internet users look for health information online. Studies conducted by the Pew Research Center show that 64% of Americans own smartphones, and 62% of owners use their phone to obtain health information. Likewise, a growing portion of the population now turns to the internet, instead of the telephone, for answers when faced with a possible poisoning. This shift has impacted Poison Control call volume – with a 13.1% decline in human poison exposure cases reported from 2008 to 2014. While a portion of that decline can be attributed to recession-related low birth rates, undoubtedly much of the decreased utilization relates to evolving information-seeking behaviors, with a distinct move to the internet as a major conduit for health information. Prior to the launch of web**POISONCONTROL**, specific case-based toxicity information was not available on the web, and substance specific information often inaccurate, to the point of being unsafe. Now, if you cannot or just prefer not to use the phone, web**POISONCONTROL** lets you get accurate poison control guidance the way you want to get it.

Will web**POISONCONTROL** save money through automation of Poison Control consults?

While web**POISONCONTROL** was developed to expand access to poison control guidance, providing an online portal for those who prefer not to call, a secondary benefit is anticipated – decreased poison control cost and increased cost benefit. More than a dozen studies have demonstrated cost savings attributable to U.S. poison centers in the range of \$6 to \$36 per dollar spent on poison control services. A 2012 [Lewin Group report](#) set the return on investment at \$13.39 per dollar spent (including medical care savings and reduced productivity loss), or \$1.8 billion/year. These savings are attributed to 1) avoided medical utilization such as unnecessary ER visits (\$752.9 million), reduced hospital length of stay due to poison control guidance (\$441.1 million), prevention of poisonings (\$23.9 million), and reduced work-loss days (\$603 million).

Despite providing life-saving and cost-saving services, most U.S. poison centers struggle with inadequate funding. Once utilization increases, web**POISONCONTROL** may decrease the cost of providing poison control services nationally, finally offering some relief from the financial challenges that poison centers have faced for decades. The price tag for the U.S. poison control system was estimated at \$136 million in 2011, and with healthcare inflation likely approached \$153 million in 2015. The 55 U.S. poison centers currently handle nearly 2.2 million human poison exposures annually – nearly 6000 cases/day. Only time will tell whether the public will embrace an online alternative, but at least a third of human poison exposure cases could potentially be handled. Public acceptance and use of an online solution remains the unknown factor in determining the magnitude of potential cost savings.

But web**POISONCONTROL** won't replace traditional poison centers. Instead, it augments their services, providing access to those who previously wouldn't call and facilitating continuity of guidance to those who start with an online case but need more help. Ideally

web**POISONCONTROL** will also free up limited poison control resources so traditional poison centers can deal with the continually increasing severity of reported cases.

Dig Deeper:

[The State of Poison Control in the US: Facing Expanding Demands Despite Budget Cuts](#)

How does web**POISONCONTROL** determine whether a poison exposure is serious?

web**POISONCONTROL** is powered by 1,400 ingredient-based algorithms, each matched to the corresponding ingredient(s) in 51,500 products. An additional 205,000 product barcodes are linked in the product database. More algorithms, products and barcodes are added daily. The application core, the ingredient algorithms, provide age- or weight-based thresholds for each ingredient. Algorithms also outline the justification for the threshold, list the expected minor symptoms and the symptoms which require further medical evaluation, specify home treatment where appropriate, define the onset and duration of symptoms, and set a risk window beyond which significant toxicity is unlikely if clinical manifestations have not already begun. Special logic is incorporated to handle each formulation type, multi-ingredient products, multiple routes (swallowed, eye, skin, inhalation, ingestion), unknown amounts, unknown weight, and the minimum possible weight for age. Users are encouraged (but not required) to provide an email address to receive a copy of the case and recommendations. The email address also serves as the key to case follow-up. Users are emailed at intervals appropriate to the substance kinetics and urged, for their own safety, to follow a link to a follow-up module. That module gathers information on what was actually done (stayed home, went to ER, admitted to hospital, etc) and what specific symptoms developed, if any. Symptoms are further evaluated and compared to worrisome effects of the poison exposure, triggering a change in the triage recommendation for the case if indicated.

It may be difficult to imagine the complexity of the engine driving this app. To support it, there are more than 50 administrative interfaces that enable tracking, linking and manipulation of products, images, barcodes, algorithms, and case data. Tools are also provided for quality assurance and analytics.

Can I rely on the recommendations I get from web**POISONCONTROL**?

Consider web**POISONCONTROL** your trusted online resource when someone is exposed to a substance (swallowed, splashed by, inhaled, or injected) that might be poisonous. web**POISONCONTROL** was developed by board-certified clinical and medical toxicologists with decades of experience in Poison Control. The project is sponsored and organized by the National Capital Poison Center, and ten U.S. poison centers are participating. In addition to the toxicologists, Certified Specialists in Poison Information assist with product coding and barcode and algorithm linking.

Each stage of development has been guided by poison control experts. These same experts also perform regular quality assurance – reviewing each case reported, recalculating the dose compared to the applicable threshold, and monitoring reports of ingredient to algorithm matches and reports of missing or incompatible information.

What's more, the web**POISONCONTROL** resource is used by Poison Control if you call. The ten participating centers rely on these same 1,400 algorithms, using an expanded view of each algorithm or a "Calculate it For Me" interface to evaluate poison exposures reported by phone.

An intensive online pilot test began on December 30, 2014. Since then, each case entered by the public has been carefully evaluated and the user experience monitored. Tweaks were made to enhance the app, removing unnecessary questions and adjusting the presentation to enhance usability. The scope was expanded from pharmaceuticals to also include many household products, and from swallowed substances to eye, skin, inhalation, and injection exposures. Triage thresholds were adjusted based on emerging toxicity data and feedback from the 10 participating poison centers. Data from the pilot phase demonstrated that this method of delivering poison control guidance was both feasible and safe.

Can I try it out so I'm prepared for an emergency?

Want to see for yourself what web**POISONCONTROL** does? Familiarize yourself before the emergency. Go to www.webpoisoncontrol.org and click on the orange button labeled "HELP ME with a possible poisoning". At the bottom of the first page, please check the box labeled "I'm just trying the tool. This is not a real case." That's the signal to exclude your test case from our poisoning statistics and quality assurance activities. You can also try it out as an app on your mobile device; download the app on the [App Store](#) or [Google play](#). The mobile app provides Poison Control "on the go", and provides the option of scanning a product's barcode to select the substance involved.

Deciding whether to call or go online: When should I use web**POISONCONTROL**?

If you took too much of a medicine or came into contact with something that might be poisonous, [web**POISONCONTROL**](#) can help you decide if it's safe to stay home, or if a call to Poison Control or visit to an emergency room is required. Use [web**POISONCONTROL**](#) first if the exposed person meets these criteria:

- Human (not pets), age 6 months to 79 years
- Taken once (not for chronic exposures or repeated use)
- Unintentional (no self-harm intended)
- Only one product involved (although it can have multiple ingredients)
- Not pregnant, and no serious underlying medical problems

A large portion of the public calls to Poison Control meet these criteria. Most people who need poison help can choose whether to use web**POISONCONTROL** or call.

What information will I need to provide to use web**POISONCONTROL**?

The web**POISONCONTROL** tool determines how dangerous an exposure is based on the information you give us. You'll be asked to provide the following:

- Substance (product name and strength if it is a medication) – you can scan the product barcode if you are using the mobile app
- Amount
- Age
- Weight
- Time since exposure
- Zip code
- Email (optional, but safer if you provide it because you'll get a summary of recommendations and a link to the follow-up module)

How long does it take to enter my case and get a recommendation?

It takes about 3 minutes to enter your information in web**POISONCONTROL** and get a recommendation. Your case could take a bit longer.

When should I call Poison Control instead of using web**POISONCONTROL**?

If this tool doesn't address your problem, or if you'd rather talk to a real person, you can always call Poison Control at 1-800-222-1222 for immediate and expert assistance (U.S. only). If you're already in a panic, there's no substitute for the calming voice of a specialist. So don't hesitate to pick up the phone and call Poison Control when you need help.

How do I CALL Poison Control?

While there are 55 poison centers in the U.S., just one number gets you to Poison Control from any state or territory. You are automatically connected to the poison center for your region, routed based on your area code and exchange or based on your location. You can call 1-800-222-1222 for a poison emergency or just a question. Poison experts answer 24/7. Your call is free and confidential.

How much does it cost?

There's never a charge for using the web**POISONCONTROL** tool online or for downloading the app to your smart phone. On your smart phone you can scan the barcode of a product that was swallowed, determining the specific substance more quickly. There's also no charge for calling Poison Control (1-800-222-1222).

Why won't web**POISONCONTROL** eliminate the need for traditional poison centers?

web**POISONCONTROL** is focused in scope. It handles unintentional, acute, single substance exposures and is for humans (not pets) who are between 6 months and 79 years, not pregnant, and have no underlying serious illness. Definitive guidance is only provided for cases that can be managed at home, without intervention by a healthcare provider. That leaves the more difficult cases – the complex, intentional, symptomatic, nuanced or serious cases – to be handled by the human experts at traditional phone-centric poison centers.

But there are other reasons the computer won't replace the traditional phone-based poison center. Poison centers do more than handle calls. They also provide consults for healthcare providers caring for poisoned patients, education for health professional trainees, hazard and chemical/bioterrorism surveillance, public education, and input into state and local responses to emerging substances of abuse, foodborne outbreaks, product hazards, preparedness and planning.

What's a "poison exposure"?

Toxicologists use the term "poison exposure" instead of "poisoning" to refer to an incident involving a person who swallows or comes in contact with a substance that might be poisonous. Contact could be swallowing, splashed in the eyes or on the skin, breathed in, or injected. Often the substance isn't as toxic as one initially thinks it might be, or the amount taken is so low that no bad effect is expected. Since symptoms may not develop, technically these exposures can't be called "poisonings".

What services does web**POISONCONTROL** offer other than triaging poison exposures?

While the core of web**POISONCONTROL** is its poison exposure triage tool, the website offers four distinct services:

- Triage tool: Answer a series of questions to find out if a swallowed substance is poisonous and determine whether a trip to the ER is necessary.

- Pill identifier: Identify a pill using imprint code, shape and color.
- Poison and prevention information: Learn about specific poisons and hazards by age, season or substance. Master prevention tips.
- The Poison Post®: [Subscribe](#) to a free, quarterly e-newsletter full of poison safety information.

What's been the impact of web**POISONCONTROL** on traditional poison centers?

web**POISONCONTROL** has had unexpected benefits for the ten poison centers participating in the project. The implementation of standardized triage algorithms – 1,400 of them at present – has been the first step towards harmonizing poison exposure triage thresholds between and within poison centers. Not only have these algorithms led to standardization, they've also improved operating efficiency as Specialists in Poison Information no longer have to repeatedly take the time (every time there's a case) to research the potentially toxic dose to determine the safe triage threshold. In addition, training new staff is facilitated by access to more specific triage guidance.

At this time, the volume of web**POISONCONTROL** cases has not grown to the point that it measurably affects telephone call volume at traditional poison centers. Since the web**POISONCONTROL** volume will grow slowly, the jobs of the nation's Specialists in Poison Information (SPIs) are not threatened. Should call volume eventually decline, normal staff attrition will undoubtedly outpace any staffing impact.

How is web**POISONCONTROL** funded?

web**POISONCONTROL** is funded entirely by charitable contributions. We depend on the support of individuals, foundations and corporations to maintain the system and expand its scope. Please support web**POISONCONTROL**®. You can [donate online](#) or send a contribution to: National Capital Poison Center, 3201 New Mexico Ave, Ste 310, Washington DC 20016. The Center is a 501(c)(3) not-for-profit, charitable organization. For more information about funding opportunities, email pc@poison.org.

Some facts about the annual cost of web**POISONCONTROL**:

- \$1.7 million/year annual budget covers maintenance and enhancements, including:
 - \$900,000/year software development
 - \$800,000/year maintenance, quality assurance, product entry, algorithm development, toxicologists, databases
- Donations still needed for FY 2018 (Jul 2017-Jun 2018): \$980,000

Additional enhancement funding needed to expand the app's scope and features during the next 2 years:

- \$350,000 would fund development of a pilot API (application program interface) to provide a seamless exchange of case information between web**POISONCONTROL** and traditional poison centers, facilitating continuity of recommendations.
- \$250,000 would expand analytic capabilities improving reporting, trending and quality assurance at both the national and center level.
- \$1,000,000 would substantially complete algorithm development, leaving only the ongoing addition of algorithms for unique ingredients in newly marketed products and continuous review of existing algorithms.
- \$700,000 would substantially complete the product database, except for new products that would need to be added as they are introduced.

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