

U.S. Food and Drug Administration  
Protecting and Promoting *Your* Health

# Medication Disposal: Questions and Answers

For safety reasons, FDA recommends that a few, select medicines be disposed of by flushing down the sink or toilet. Accidental exposure to these medicines could be harmful or sometimes deadly, even in a single dose, if they are used by someone other than the person the medicine was prescribed for. Flushing these medicines down the sink or toilet removes this risk from the home. The list of medicines recommended for disposal by flushing can be seen at [this link \(http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm#MEDICINES\)](http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm#MEDICINES).

This question and answer page provides additional details on why FDA recommends to flush certain medicines.

***Q: What are FDA's recommendations for removing unused medicines from the home?***

FDA supports the responsible disposal of medicines from the home. Almost all medicines can be safely disposed of by using medicine take-back programs or using U.S. Drug Enforcement Agency (DEA)-authorized collectors. When these options are not available, consumers may also dispose of unneeded medicine in their household trash.

DEA-authorized collectors safely and securely collect and dispose of pharmaceutical controlled substances and other prescription drugs. In your community, authorized collection sites may be retail pharmacies, hospital or clinic pharmacies, and law enforcement locations. Some pharmacies may also offer mail-back envelopes to assist consumers in safely disposing of their unused medicines through the U.S. Mail.

Consumers can visit the [DEA's website \(http://www.deadiversion.usdoj.gov/drug\\_disposal/index.html\)](http://www.deadiversion.usdoj.gov/drug_disposal/index.html) for more information about drug disposal and to locate an [authorized collector \(https://www.deadiversion.usdoj.gov/pubdispsearch/spring/main?execution=e1s1\)](https://www.deadiversion.usdoj.gov/pubdispsearch/spring/main?execution=e1s1) in their area. Consumers may also call the DEA Office of Diversion Control's Registration Call Center at 1-800-882-9539 to find an authorized collector in their community. Local law enforcement agencies may also sponsor medicine take-back programs in your community. Contact your city or county government for more information on local drug take-back programs. The U.S. Drug Enforcement Administration (DEA) periodically hosts [National Prescription Drug Take-Back events \(http://www.deadiversion.usdoj.gov/drug\\_disposal/takeback/index.html\)](http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html) where collection sites are set up in communities nationwide

for safe disposal of prescription drugs.

If a take-back or mail back program is not available to you, most other unused or expired medicines can be disposed of in your household trash. First, mix the medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, kitty litter, or used coffee grounds. Then place the mixture in a container such as a zip-top or sealable plastic bag, and throw the container away in your household trash. Before throwing out your empty pill bottle or other empty medicine packaging remember to scratch out all personal information on the prescription label to make it unreadable.

There are, however, a few prescription medicines that contain controlled substances and are especially harmful if taken accidentally by someone other than the patient. These medicines should not be thrown in the trash, because this method may still provide an opportunity for a child or pet to accidentally take the medicine. If a DEA-authorized collector or drug take-back program is not available, FDA recommends that these medicines be disposed of by flushing when they are no longer needed. The list of medicines recommended for disposal by flushing can be seen at [this link \(http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm#MEDICINES\)](http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm#MEDICINES).

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***Q: Why do the medicines on this list have directions for disposal by flushing and other medicines do not? What is the rationale for this policy?***

The medicines recommended for disposal by flushing are safe and effective when used as prescribed, but they could be especially harmful to a child, pet, or others if taken accidentally. Some of the possible harmful effects include breathing difficulties or heart problems, which could lead to death. For these reasons, FDA recommends that when it isn't possible to return these medicines through a take-back program or to a DEA-authorized collector via a collection box or mail-back program, consumers should flush them down the sink or toilet to immediately and permanently remove this risk from their home.

Reducing the risk of harm from accidental exposure to this small, select list of medicines is of utmost concern to FDA and we believe that this risk far outweighs any potential risk to human health or the environment that may come from disposal by flushing. FDA continues to work with and encourage manufacturers of these medicines to develop alternative, safe disposal systems.

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***Q: How big of a problem is accidental exposure to medicine in the United States?***

Accidental exposure to medicine in the home is a major source of unintentional

poisonings in the United States.

- In 2007, there were 255,732 cases of improper medicine use reported to Poison Control Centers in the United States. Approximately 9% of these cases (23,783) involved accidental exposure to another person's medicine. Approximately 5,000 of these accidental exposure cases involved children 6 years and younger.<sup>1</sup>
- Keeping medicines after they are no longer needed creates an unnecessary health risk in the home, especially if there are children present. Even child resistant containers cannot completely prevent a child from taking medicines that belong to someone else. In a study that looked at cases of accidental child exposure to a grandparent's medicine, 45% of cases involved medicines stored in child-resistant containers.<sup>2</sup>

Cases of inadvertent exposure to some of these medicines were published in the American Association of Poison Control Centers' 2007 annual report.<sup>1</sup> A case of accidental exposure to one of these medicines has also been published in the literature.<sup>3</sup> Below are summaries of some of these cases to illustrate how some medicines can result in fatality if they are accidentally taken by children.

- A 2-year old male was found with an open bottle of methadone, an opioid drug that can be used for the management of pain. The child was taken to the emergency department and appropriate actions (e.g., activated charcoal) were taken to flush the medicine from his system. Following these interventions, the child was discharged from the hospital. Later that same day, he was found not breathing and without a heartbeat. There was vomit around his mouth. Emergency services were called, but attempts at resuscitation were ineffective and the child died.<sup>1</sup>
- A 4-year old female was found not breathing by her grandparents in their home. Resuscitation was attempted, but was ineffective and the child died. During the autopsy, a transdermal fentanyl patch, a strong opioid pain medicine, was found in the child's gastrointestinal tract. Apparently, the child found a discarded patch in the trash and ingested it, resulting in a massive overdose of fentanyl.<sup>1</sup>
- A 2-year old female was found in her home rubbing her mouth and staggering. Before entering the house, she had been playing outside and her parent, based on her behavior, believed that she had ingested something. Additional symptoms, including tiredness and abdominal pain, later emerged. She was brought to the emergency room and her physical examination revealed no remarkable signs of distress. The child was discharged to her parent's care. The following morning, the child was found unresponsive. Emergency services were called and CPR was begun. The child was pronounced dead upon arrival to the hospital. A blood sample taken around the time of death was positive for oxycodone.<sup>3</sup>

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***Q: Does flushing the medicines on this list down the toilet or sink pose a risk to human health or the environment? How have considerations about medicines in the environment informed FDA's recommendations about the disposal of***

### ***medicines from the home?***

FDA is aware of reports of very low but measurable levels of medicines in surface waters such as rivers and streams, and to a lesser extent in drinking water. Disposal of these select few medicines by flushing would contribute only a small fraction of the total amount of medicine found in our surface and drinking water. The majority of medicines found in water are a result of the body's natural routes of drug elimination (in urine or feces).

Based on the available data, FDA believes that the known risk of harm to humans from accidental exposure to these medicines far outweighs any potential risk to humans or the environment from flushing them.

To date, scientists have found no evidence of harmful effects to human health from medicines in the environment. In addition, to better understand the human health and ecological risks from medicines in our water, FDA works with other agencies, including the U.S. Environmental Protection Agency (EPA). Still, to reduce overall medicine levels in our waters, FDA recommends that consumers first consider disposing of these drugs as quickly as possible through medicine take-back programs or DEA-authorized collectors before flushing down the sink or toilet.

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***Q: Can the medicines that FDA recommends for disposal by flushing be eliminated from the home in some other manner; for example, by drug-take back programs or returning the medicine to the pharmacy?***

Yes, the medicines that FDA recommends for disposal by flushing can be disposed of by other methods. For example, consumers can return these medicines to a DEA-authorized collector through secure collection receptacles or mail-back packages, and to local and national medicine take-back programs. Authorized collection sites may be retail pharmacies, hospital or clinic pharmacies, and law enforcement locations. However, since these medicines may be especially harmful to a child, pet, or anyone else if taken accidentally, it is important to store them safely and securely until disposal.

Your local law enforcement agency may sponsor drug take-back events that can accept medicines containing controlled substances. If there is not a timely take-back program in your area that accepts medicines containing controlled substances, the most effective way to immediately and completely eliminate the potential for harm is to remove these medicines from the home by flushing them down the sink or the toilet.

To find out whether there are alternative disposal options for medicines containing controlled substances in your community, contact your city or county government. Consumers can visit the **DEA's website ([http://www.deadiversion.usdoj.gov/drug\\_disposal/index.html](http://www.deadiversion.usdoj.gov/drug_disposal/index.html))** for more information about drug disposal, **National Prescription Drug Take-Back Day events ([http://www.deadiversion.usdoj.gov/drug\\_disposal/takeback/index.html](http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html))** and to locate a **DEA-authorized collector**

(<https://www.deadiversion.usdoj.gov/pubdispsearch/spring/main?execution=e1s1>) in their area. Consumers may also call the DEA Office of Diversion Control's Registration Call Center at 1-800-882-9539 to find an authorized collector in their community, or talk to their pharmacist to see if he or she knows of other disposal programs in your area.

FDA continues to work with and encourage the manufacturers of these products to develop alternative, safe disposal systems.

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***Q: I live in an assisted living community and take my own medicines. I have prescription medicines that I no longer need. How can I safely dispose of them?***

Check first with your community's health care management team to learn the best way to dispose of your used or unneeded medicines. If you learn that you are responsible for disposal of your own medicines, there are a few options that you can choose from:

1. DEA-authorized collectors safely and securely collect and dispose of pharmaceutical controlled substances and other prescription drugs. A retail pharmacy or a hospital or clinic with an on-site pharmacy may install, manage and maintain a DEA-authorized medicine collection receptacle [at your long-term care facility \(http://www.deadiversion.usdoj.gov/drug\\_disposal/fact\\_sheets/disposal\\_ltcf.pdf\)](http://www.deadiversion.usdoj.gov/drug_disposal/fact_sheets/disposal_ltcf.pdf). You may also be able to use a DEA-authorized mail-back program, or a take-back program held by local law enforcement to safely dispose of your unused medicines.
2. If no DEA-authorized collector or medicine take-back program is available in your area, you can dispose of most medicines in your household trash. Mix the medicines (do NOT crush tablets or capsules) with an unpalatable substance such as dirt, kitty litter or used coffee grounds. Place the mixture in a container such as a zip-top or sealable plastic bag, and throw the container in your household trash. Before throwing out your empty pill bottle or other empty medicine packaging, remember to scratch out all personal information on the prescription label to make it unreadable.
3. A small number of medicines may be especially harmful, and in some cases even fatal in just one dose, if they are taken by someone other than the patient. For this reason, a few medicines have specific disposal instructions telling you to flush them down the sink or toilet when they are no longer needed and when they cannot be disposed of through a DEA-authorized collector. For example, you should flush strong pain medicines such as Oxycontin® down the drain as soon as they are no longer needed. When you dispose of these medicines down the sink or toilet, they cannot be accidentally taken by children, pets, or anyone else. Here is the [list of medicines recommended for disposal by flushing \(http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/ensuringsafeuseofmedicine/safedisposalofmedicines/ucm186187.htm#MEDICINES\)](http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/ensuringsafeuseofmedicine/safedisposalofmedicines/ucm186187.htm#MEDICINES).

4. Some of the medicines recommended for disposal by flushing are available as adhesive skin patches. For example, fentanyl patches are used to treat patients in constant pain by releasing a continuous amount of drug from the patch over three days. Even a used patch that has been worn for three days still contains enough fentanyl to harm or cause death in a child. FDA recommends disposing of used patches immediately after taking them off of the skin. Fold the patch in half so that the sticky sides meet, and then flush it down the toilet. Used or unneeded fentanyl patches should NOT be placed in the household trash where children or pets can find them. You can read more about disposing of fentanyl patches in the **product Medication Guide (<http://www.fda.gov/downloads/Drugs/DrugSafety/ucm088584.pdf>)**.

## References

1. Bronstein et al. 2007 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 25th Annual Report. Clin Toxicol (Phila). 2008;46(10):927-1057.
2. McFee RB, Caraccio TR. "Hang Up Your Pocketbook" -- an easy intervention for the granny syndrome: grandparents as a risk factor in unintentional pediatric exposures to pharmaceuticals. J Am Osteopath Assoc. 2006;106(7):405-11.
3. Armstrong et al. 2004. An unusual fatality in a child due to oxycodone. Am J Forensic Med Pathol. 2004;25(4):338-41.

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### Additional Resources

- **[Safe medicine disposal options \(/Drugs/NewsEvents/ucm464197.htm\)](/Drugs/NewsEvents/ucm464197.htm)**
- **[Disposal of Unused Medicines: What You Should Know \(/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm\)](/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm)**
- **[How to Dispose of Unused Medicines \(/ForConsumers/ConsumerUpdates/ucm101653.htm\)](/ForConsumers/ConsumerUpdates/ucm101653.htm)**  
FDA Consumer Update

### Contact FDA

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**Human Drug Information**  
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**<http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm082585>** (CDER)

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**([/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely](#)**

**/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/default.htm)**