

MEDICATION SAFETY

(information from www.cdc.gov)

CDC's Medication Safety Program monitors adverse drug events (ADEs) across the country and uses these data to improve medication safety through better partnerships and policies.

• Medication Safety is Important

Adverse drug events are harms resulting from the use of medication and include allergic reactions, side effects, over-medication, and medication errors. Adverse drug events are a serious public health problem. It is estimated that:

- 82 percent of American adults take at least one medication and 29 percent take five or more;¹
- ADEs cause approximately 1.3 million emergency department visits and 350,000 hospitalizations each year;²
- \$3.5 billion is spent on excess medical costs of ADEs annually;³
- More than 40% of costs related to ambulatory (non-hospital) ADEs might be preventable.³

The numbers of adverse drug events is likely to grow due to:

- Development of new medicines
- Discovery of new uses for older medicines
- Aging American population
- Increased use of medicines for disease treatment and prevention
- Expansion of insurance coverage for prescription medicines
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Put Your Medicines Up and Away and Out of Sight

About 60,000 young children end up in emergency rooms each year because they got into medicines while an adult wasn't looking. These emergency visits can be prevented by always putting every medicine up and away and out of children's reach and sight every time you use it.

Families take medications and vitamins to feel well and to stay well. However, any medication, including those you buy without a prescription, can cause harm if taken in the wrong way or by the wrong person. Practicing safe medication storage, while at home and when on-the-go, can help keep children safe.

Protect your children. Here's how:

- **Put medicines up and away and out of children's reach and sight.**
 - Children are curious and put all sorts of things in their mouths. Even if you turn your back for less than a minute, they can quickly get into things that could hurt them.
 - Pick a storage place in your home that children cannot reach or see. Different families will have different places. Walk around your house and decide on the safest place to keep your medicines and vitamins.
 - Put medicines up and away and out of children's reach and sight.
 - Always relock the cap on a medicine bottle.
- **Put medicines away every time.**
 - This includes medicines and vitamins you use every day. Never leave medicine out on a kitchen counter or at a sick child's bedside, even if you have to give it again in a few hours.
- **Make sure the safety cap is locked.**
 - Always relock the cap on a medicine bottle. If the bottle has a locking cap that turns, twist it until you hear the click or cannot twist anymore.
 - Remember, even though many medicines have safety caps, children may be able to open them. Every medicine must be stored up and away and out of children's reach and sight.
- **Teach your children about medicine safety.**

- Teach your children what medicine is and why you or a trusted adult must be the one to give it to them.
- Never tell children medicine is candy to get them to take it, even if they don't like to take their medicine.
- **Tell your guests about medicine safety.**
 - Ask family members, house guests, and other visitors to keep purses, bags, or coats that have medicine in them up and away and out of sight when they are in your home.
- **Be prepared in case of an emergency.**
 - Call your poison control center at **800.222.1222** right away if you think your child might have gotten into a medicine or vitamin, even if you are not completely sure.
 - Program the Poison Help number into your home and cell phones so you will have it when you need it.
- **Take Action.**
 - Visit the [Up and Away Campaign's website](#) to learn more about storing medications safely while at home and when traveling with young children. Share these safe storage tips with family and friends.

● Adverse Drug Events in Adults

An adverse drug event (ADE) is when someone is harmed by a medicine. Older adults (65 years or older) visit emergency departments almost 450,000 times each year, more than twice as often as younger persons.

Older adults are nearly seven times more likely than younger persons to be hospitalized after an emergency visit, but most of these hospitalizations are due to just [a few drugs](#) that should be monitored carefully to prevent problems. Blood thinners (such as [warfarin](#)), diabetes medications (such as [insulin](#)), seizure medications (such as [phenytoin](#)), and [opioid analgesics](#) are some examples of these medications.

To reduce the risk of harm from adverse drug events in adults:

- Keep a list of your medicines
- Follow directions
- Ask questions
- Keep up with any blood testing recommended by your doctor
- Take all medicines only as directed

Adverse drug events are a large public health problem.

Adverse drug events cause approximately 1.3 million emergency department visits each year. About 350,000 patients each year need to be hospitalized for further treatment after emergency visits for adverse drug events. People typically take more medicines as they age, and the risk of adverse events may increase as more people take more medicines.

Leading Causes of Emergency Department (ED) Visits for Adverse Drug Events (ADEs)

- **Overall**, blood thinners (anticoagulants), antibiotics, diabetes drugs, and opioid analgesics are the most commonly implicated drug classes in ED visits for ADEs.
- **Among children and adolescents** (19 years old or younger), antibiotics are the leading cause of ED visits for ADEs.
- **Among adults 20-64 years old**, antibiotics remain a leading cause of ED visits for ADEs.
- **Among older adults** (65 years old or older), anticoagulants and diabetes drugs are the leading causes of ED visits for ADEs.

Adverse drug events are an important patient safety problem, but many are preventable. Patient safety and quality initiatives that focus on the medications and patient age groups most commonly

involved in adverse drug events have the greatest potential for reducing the number of emergency department visits caused by adverse drug events.

References

1. Slone Epidemiology Center at Boston University. [Patterns of medication use in the United States, 2006.](#)
2. Shehab N, Lovegrove MC, Geller AI, Rose KO, Weidle NJ, Budnitz DS. US emergency department visits for outpatient adverse drug events, 2013-2014. *JAMA* 2016;316:2115-25
3. Institute of Medicine. Committee on Identifying and Preventing Medication Errors. Preventing Medication Errors, Washington, DC: The National Academies Press 2006.