

# **Being Smart About Your Medicines**

***What you need to know to  
make sure your medicines are  
helping, not hurting***

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# Pop Quiz: True or False?

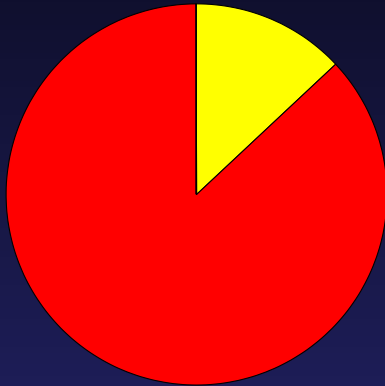
1. Due to aging, you need to take a lot of medicines
2. Every condition you have should have a medicine to treat it if possible
3. Many conditions require more than one drug to treat them
4. As you age, your body's ability to handle medications is reduced
5. Risks and side effects of medicines occur more frequently in older adults than in younger adults

Is this YOU?

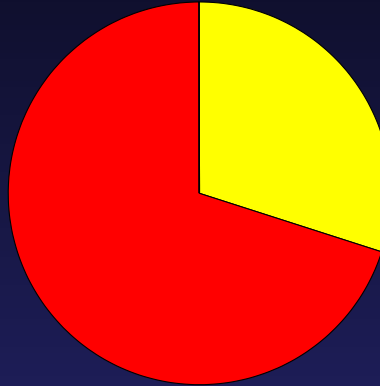


# Medications and Older Adults

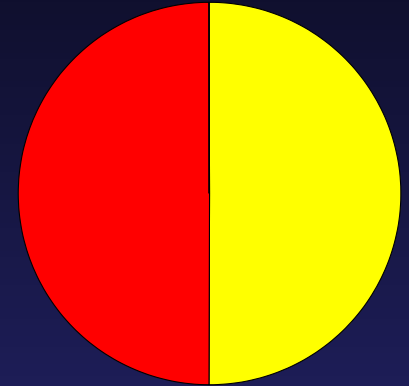
13% of population



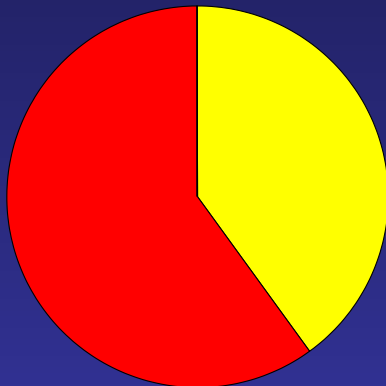
30% of all Rx drugs



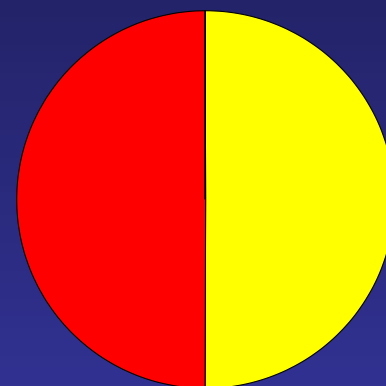
50% of OTCs



40% Drug-related hosp



50% of drug-related deaths



# Medicines - Risks

- It is important to know that ALL medicines, both prescription and OTC, have risks as well as potential benefits.
  - Risks: something unwanted or unexpected could happen to you when you use medications
  - Less serious (like upset stomach)
  - More serious (like liver damage)



# Medicine Risks

- Medicines can cause problems, even if used correctly:
  - **Allergic reaction:** when your body's defense system reacts in a bad way to a drug
    - Hives, itching, rash
    - Narrowing of throat, difficulty breathing, shortness of breath
  - **Side effect:** undesired effect of a medicine
    - Common side effects (headache, upset stomach)
    - Rare (liver failure)
    - Side effects can occur even though the medicine is being taken correctly at the normal dose

# Dietary Supplements Can Be Problematic Too

## Denver Post: July 2012

### DIETARY SUPPLEMENTS

## Manufacturing problems unsanitary, widespread

**Rodent troubles and uncertain ingredients prompt an FDA official to say, "It's downright scary."**

By Trine Tsouderos  
Chicago Tribune

**CHICAGO»** Federal inspections of companies that make dietary supplements — from multivitamins and calcium chews to capsules of echinacea and bodybuilding powders — reveal serious and widespread manufacturing problems in a \$28 billion industry that sells products consumed by half of all Americans.

In the past four years, the U.S. Food and Drug Administration has found violations of manufacturing rules in half of the nearly 450 dietary-supplement firms it has inspected, according to agency officials.

The inspection reports portray an industry struggling to meet basic manufacturing standards, from verifying the identity of the ingredients that go

into its products to inspecting finished batches of supplements.

Some firms don't even have recipes, known as master manufacturing records, for their products.

Others make their supplements in unsanitary factories. New Jersey-based Quality Formulation Laboratories produced protein-powder mixes and other supplements in a facility infested with rodents, rodent feces and urine, according to government records. FDA inspectors found a rodent apparently cut in half next to a scoop, according to a 2008 inspection report.

"It's downright scary," said Daniel Fabricant, head of the FDA's Division of Dietary Supplement Programs. "At least half of the industry is failing on its face."

The FDA began conducting inspections in 2008 to assess compliance with new regulations governing the

manufacturing, packing and holding of dietary supplements. Since then, 1 in every 4 dietary-supplement companies inspected by the agency have received a warning letter, considered a significant enforcement action.

So far this year, FDA inspectors have found violations of good manufacturing practices during two-thirds of the 204 inspections they have conducted in nearly 200 supplement firms' facilities, agency officials said. Seventy of these inspections resulted in the agency's most serious rating.

Cara Welch, vice president of scientific and regulatory affairs for the Natural Products Association, a large dietary-supplement trade group based in Washington, D.C., called the inspection numbers "unfortunate" and a significant issue her organization has been tackling.

"We can't give up on the industry," Welch said. "We are going to make it as strong as can be."

Manufacturers large and small are

making efforts to implement the regulations, including sections borrowed from the FDA's drug-manufacturing rules, said Michael McGuffin, president of the American Herbal Products Association, a trade association based in Silver Spring, Md.

But it takes time for companies to come into compliance with such a large and complex set of rules and for the FDA to establish how the rules will be enforced, McGuffin said. "Not everybody was in compliance on the day the rule was passed, but that is not uncommon in any rulemaking," he said.

In 2008, more than 200 people — including a 4-year-old — were poisoned by selenium after taking liquid multivitamin dietary supplements that were sold in health stores and by chiropractors, according to a medical paper published on the mass poisoning. The products, called Total Body Formula and Total Body Mega Formula, contained an average of 40,800 micrograms of selenium per serving instead

of 200, according to the paper.

John Adams, of Chipley, Fla., was one of the victims. His silver hair — which had earned him the nickname "Silvertop" at work — began falling out in clumps. His fingernails and toenails became discolored, peeled off, regrew and peeled off again. He had a hard time remembering how to do his job as a telephone repairman. He became so weak, it was hard to get in and out of his work truck, and eventually he was forced to retire.

Adams and his wife, who also experienced problems, sued along with dozens of others. This year, the couple received a settlement. Adams, now 65, said he is still weak on his left side, has ruined fingernails and toenails that do not grow and struggles with memory problems.

"What is a person in America to do to be healthy?" Adams wrote in an e-mail. "Who can you trust? Not the supplement industry because it does not take long for a tainted product to make you very sick."



# More Dietary Supplement Problems

*The NEW ENGLAND JOURNAL of MEDICINE*

## SPECIAL ARTICLE

### Emergency Department Visits for Adverse Events Related to Dietary Supplements

Andrew I. Geller, M.D., Nadine Shehab, Pharm.D., M.P.H.,  
Nina J. Weidle, Pharm.D., Maribeth C. Lovegrove, M.P.H.,  
Beverly J. Wolpert, Ph.D., Babgaleh B. Timbo, M.D., Dr.P.H.,  
Robert P. Mozersky, D.O., and Daniel S. Budnitz, M.D., M.P.H.



# Potential Medication Use Problems

- Over use
  - Taking more than prescribed or recommended by the healthcare provider or the label on the bottle
  - Taking unnecessary medicines
- Under use
  - Taking less than prescribed or recommended, or by missing or skipping doses
- Nonadherence
  - Deviating from instructions for use
- Drug interactions

# When Can Medicine Use Problems Occur?

- When a new medicine is started
- When a medicine is stopped
- When a dose is changed
- When labs are not monitored
- When diet/alcohol interacts
- When doctors and pharmacists are not aware of all medicines
- When medications are filled at different pharmacies

# How to Prevent Medicine Problems

- Know your medicines!
  - What is the medicine used for?
  - How to take it
    - ✓ How much?
    - ✓ How often/what time of day?
    - ✓ With or without food, with or without other medicines?
  - Where do you store it?



# How to Prevent Medicine Problems

- Communication
  - Ask questions to increase knowledge
  - Talk to your healthcare providers
  - Keep an updated medicine list
- Use one pharmacy for all prescriptions
- Medicine Review
  - Check your prescription prior to taking it
  - Have all medicines reviewed at least annually



# Insurance Coverage of Your Annual Medicine Review

- Medicare Part D is required to offer an annual medicine review (e.g. Comprehensive Medication Review) to certain individuals
- Mandatory for those with:
  - Prescription drug costs that add up to approximately \$3000 per year
  - At least 2-3 chronic diseases/conditions
  - At least 2-8 medicines (actual number depends on your plan)
- Contact your Medicare Part D plan to request your comprehensive medication review!

# How to Prevent Medicine Problems: The OTC Drug Fact Label

- All over-the-counter medicines in the U.S. have a Drug Facts Label
- Learn to read the Drug Facts Label
  - Knowledge to make better decisions, and use OTC medicines safely.

<b>Drug Facts</b>	
<b>Active ingredient (in each tablet)</b> Chlorpheniramine maleate 2 mg .....	<b>Purpose</b> Antihistamine
<b>Uses</b> temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing   ■ runny nose   ■ itchy, watery eyes   ■ itchy throat	
<b>Warnings</b> <b>Ask a doctor before use if you have</b> ■ glaucoma   ■ a breathing problem such as emphysema or chronic bronchitis ■ trouble urinating due to an enlarged prostate gland	
<b>Ask a doctor or pharmacist before use if you are</b> taking tranquilizers or sedatives	
<b>When using this product</b> ■ You may get drowsy   ■ avoid alcoholic drinks ■ alcohol, sedatives, and tranquilizers may increase drowsiness ■ be careful when driving a motor vehicle or operating machinery ■ excitability may occur, especially in children	
If pregnant or breast-feeding, ask a health professional before use. <b>Keep out of reach of children.</b> In case of overdose, get medical help or contact a Poison Control Center right away.	
<b>Directions</b>	
adults and children 12 years and over	take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
children 6 years to under 12 years	take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
children under 6 years	ask a doctor
<b>Other information</b> store at 20-25° C (68-77° F)   ■ protect from excessive moisture	
<b>Inactive ingredients</b> D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch	

# Supplements: Which are Safe?

## Generally considered safe

- Vitamin D
- Vitamin B12, folate
- Calcium
- Glucosamine/chondroitin
- Fish oil
- Melatonin
- **Avoid multi-ingredient supplements**

- **Look for the USP label**
  - ✓ Nature Made
  - ✓ Kirkland Signature
  - ✓ TruNature
  - ✓ Safeway
  - ✓ Sunmark
  - ✓ Berkley & Jensen
  - ✓ Equaline









# Talking with Your Healthcare Provider



1. Prior to your visit, make a list of questions
2. Make sure you are upfront and honest with your provider
3. Bring all of your medicines to your appointment

*You are an important part of your healthcare team!*

# Safe Storage of Medications

- Keep your medicine out of sight and possibly locked up
  - From kids, visitors, cleaning crews
- Store medication as directed
  - A cool dry place, not a kitchen or bathroom
  - Sometimes in the fridge
- Always use the original container the medicine came in. Make sure the label remains attached and all child-resistant caps are secured
- Do not combine medications into one bottle
- Monitor how much medicine you have stored



[Lockmed.com](http://Lockmed.com)



[pill-pod.com](http://pill-pod.com)



[rxdrugsafe.com](http://rxdrugsafe.com)

# How to Destroy Unnecessary, Unused, or Expired Meds

- Why destroy your meds?
  - **At least one Coloradan, and in many cases more, died per day (1.6 per day) in 2013 from unintentional drug poisonings.**
  - **Teens say prescription drugs are “easier to get than beer” because prescription medications are easily obtained from friends’ and family’s medicine cabinets.**
- The DEA collected and destroyed over 24,000 lbs of drugs during the most recent April take-back event in Colorado

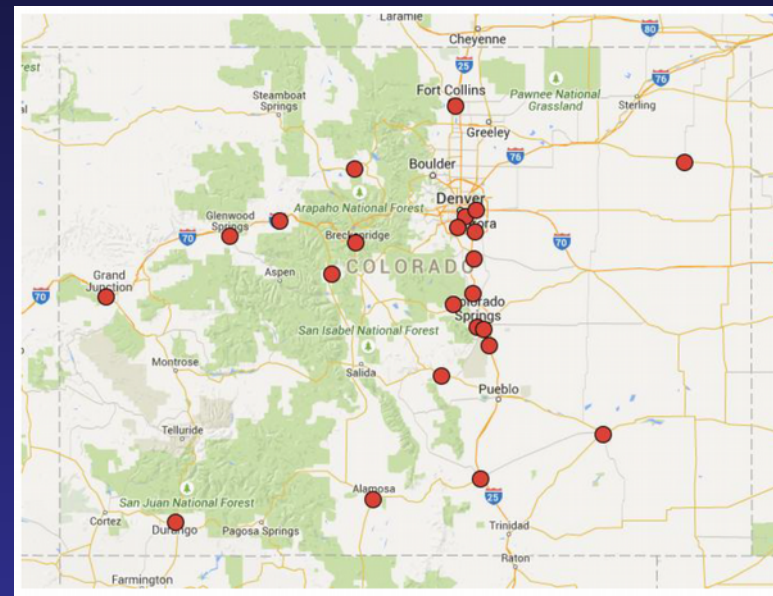
# How to Properly Dispose of Medicines Safely

Type of Medicine	Disposal Method
<b>Over-the-counter medications</b> (vitamins, cough and cold pills, etc)	Open Year Round:  Colorado Medication Take-Back Project Call 303-692-2903 or visit <a href="http://www.coloradomedtakeback.info">www.coloradomedtakeback.info</a> to find a location in your area and a list of accepted medications
<b>Pet medicines</b>	
<b>Prescription medications</b> <b>Inhalers</b> <b>Creams/Ointments</b> (but <u>not</u> narcotics or other controlled substances)	
<b>Prescription medications AND controlled substances</b> (Percocet, Oxycontin, Vicodin, Xanax, Ritalin, Adderall, many others)	DEA National Take-Back Initiative: Got Drugs? Visit <a href="http://www.dea.gov">www.dea.gov</a> to find a date and location in your area  Open year round: Local law enforcement agency Contact your local police department, Sheriff's office, or Highway Patrol to see if they have a drop-off location
<b>Syringes/injectable medications</b> (insulin, others) <b>Patches</b>	Dispose of sharps in a disposal container purchased at the pharmacy <u>except fentanyl patches</u> : follow other instructions above. For fentanyl patches, fold in half and flush down toilet immediately.

# How to Destroy Unnecessary, Unused, or Expired Meds

- <http://takemedsseriously.org/>
- <https://www.colorado.gov/cdphe/rxdrug>

County	Location	Hours Available
Adams	University of Colorado Denver Police Department, Anschutz Medical Campus 12454 East 19th Place, Aurora, CO 80045	24/7 North entrance of building 407
Arapahoe	Arapahoe County Sheriff 13101 E. Broncos Parkway Centennial, CO 80112	Monday - Friday 8:00 am - 5:00 pm
Arapahoe	Littleton Police Department 2255 W. Berry Ave. Littleton, CO 80120	24/7
Denver	Glendale Police Department 950 S Birch St Glendale, CO 80246	TBD
Douglas	Castle Rock Police Department 100 Perry St. Castle Rock, CO 80104	Monday - Friday 8:00 am - 5:00 pm



**QUESTIONS?**