

# Safe Disposal of Medications and Sharps in the Home Setting

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American Nurses Association

&

U.S. Food and Drug Administration



# Objectives:

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- Identify the potential human and environmental hazards of sharps and medication disposal in the home
- Discuss recommendations for safe disposal of medications and sharps, and resources available in the community

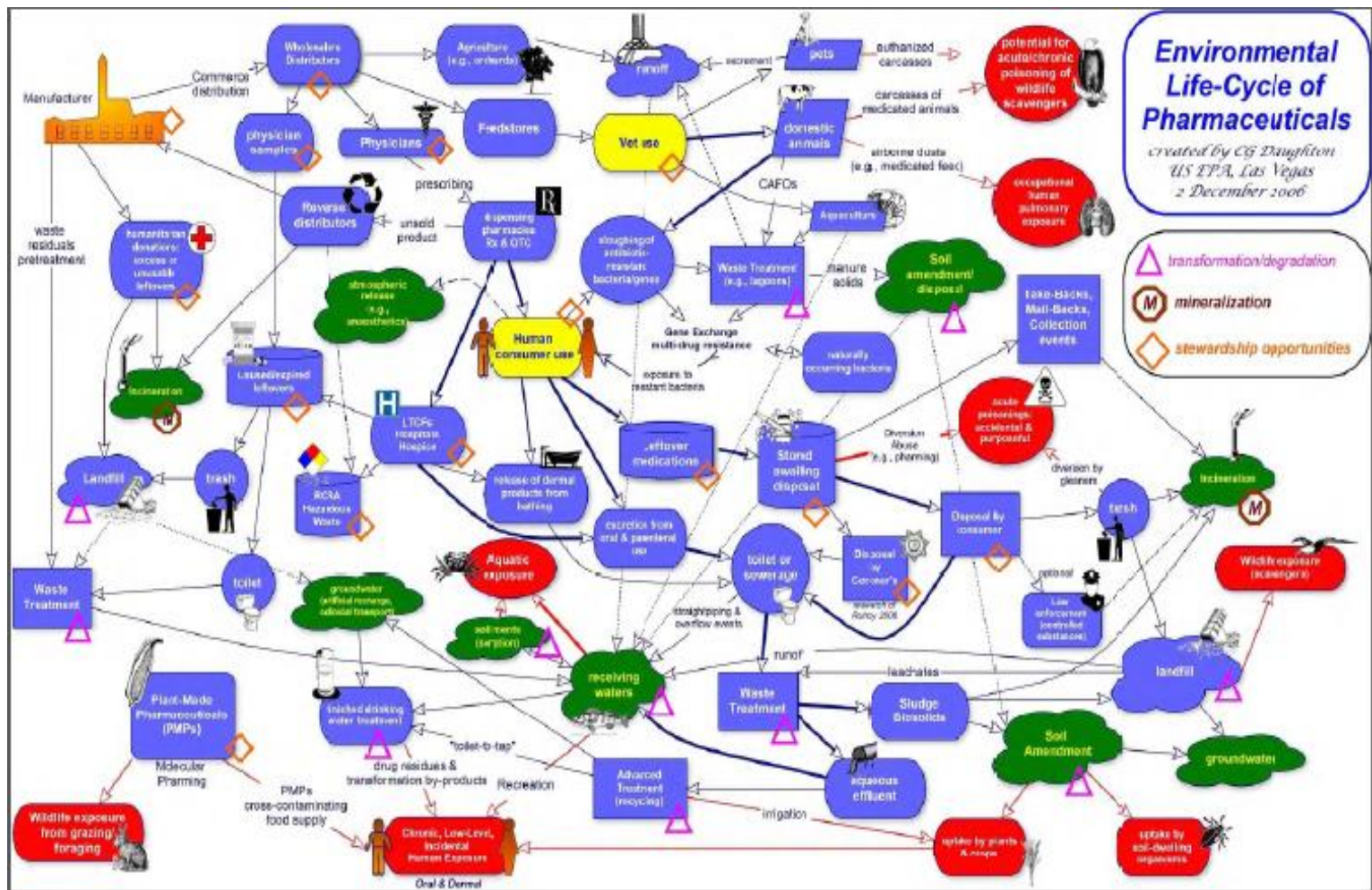
# Where Do Unused and Expired Medications Go?

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## EPA's Life-Cycle of Medications

Every product has a life-cycle, from the time it's manufactured through it's use and eventual destruction or disposal. This process is also referred to as "cradle-to-grave". The EPA has applied this process to medications.

# Medications in the Home

- 🔥 In 2006, average of 16.5 outpatient prescription purchases (new and refills) per person
- 🔥 From 1999 to 2009, there was a 39% increase in prescription purchases
- 🔥 In 2010, there were 3.7 billion retail prescriptions purchased



Agency for Healthcare Research and  
Quality, Kaiser Family Foundation



## Prescription Drugs – Not Just For the Elderly

58% of non-elderly adults rely on a prescription medicine on a regular basis

Agency for Healthcare Research and Quality. Prescription Medicines- Mean and Median Expenses per Person With Expense and Distribution of Expenses by Source of Payment: United States, 2007. Medical Expenditure Panel Survey Component Data. Generated interactively. (February 4, 2010) A



# Consequences of Medications in the Home

- 🔥 Major source of unintentional poisonings in children
- 🔥 Primary source for abuse and diversion of prescription drugs
- 🔥 Don't forget pets!



Photo courtesy of Maggiejumps; Flickr, Creative Commons

# Child-Resistant Bottles Aren't Always So!



Photos by Lucy Baker, courtesy of the Dayton Daily News




# Proper Storage of Current Medications

- ☞ Store out of reach of children and pets
- ☞ Area should be dry, away from heat and cold
- ☞ Store controlled-substances in a lock-box



# Proper Disposal of Unused or Expired Medications

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-  FDA recommends the following steps be taken to properly dispose of most unused or expired prescription medications:
1. Take out of original container
  2. Mix with coffee grounds or cat litter
  3. Put in sealable bag or other container
  4. Dispose in household trash

# Proper Disposal of Patches

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- 🔥 Certain medications come in a transdermal patch:
  - ✓ Duragesic (Fentanyl)
  - ✓ Nitro-Dur (Nitroglycerine)
  - ✓ Androderm (Testosterone)
- 🔥 A used patch has a lot of residual drug!
- 🔥 Fold the patch in half, sticky side together.
- 🔥 Immediately flush a Duragesic patch! Nitro-Dur and Androderm patches can go in the trash.

# Drug Take-Back and Mail-Back Programs

➤ Additional options for safely disposing of unused or expired medications

➤ Most programs do not accept controlled substances

➤ Check with city and county governments for program availability in the community

➤ Check with local pharmacies



## Some Riskier Medications Should Be Flushed

A few prescription medicines, primarily controlled substances, are especially harmful or even fatal if taken accidentally by someone other than the patient. For this reason, they should be flushed down the sink or toilet to eliminate them from the home.



# Medications Recommended For Flushing

\*These medicines have generic versions available or are only available in generic formulations

- ☞ **Actiq**, oral transmucosal lozenges
- ☞ **Avinza**, capsules (extended release)
- ☞ **Daytrana**, transdermal patch system
- ☞ **Demerol**, tablets\*
- ☞ **Demerol**, oral solution\*
- ☞ **Diastat/Diastat AcuDial**, rectal gel
- ☞ **Dilaudid**, tablets\*
- ☞ **Dilaudid**, oral liquid\*
- ☞ **Dolophine hydrochloride**, tablets\*
- ☞ **Duragesic**, patch (extended release)\*
- ☞ **Embeda**, capsules (extended release)
- ☞ **Fentora**, tablets (buccal)
- ☞ **Kadian**, capsules (extended release)
- ☞ **Methadone hydrochloride**, oral solution\*
- ☞ **Methadose**, tablets\*
- ☞ **Morphine sulfate**, tablets (immediate release)\*
- ☞ **Morphine sulfate**, oral solution\*
- ☞ **MS Contin**, tablets (extended release)\*
- ☞ **Onsolis**, soluble film (buccal)
- ☞ **Opana**, tablets (immediate release)
- ☞ **Opana ER**, tablets (extended release)
- ☞ **Oramorph SR**, tablets (sustained release)
- ☞ **OxyContin**, tablets (extended release)\*
- ☞ **Percocet**, tablets\*
- ☞ **Percodan**, tablets\*
- ☞ **Xyrem**, oral solution



# Balancing Public Health and Environmental Concerns

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- Trace amounts of pharmaceuticals are present in our nation's water system
  - Mainly due to the natural elimination from the body
- Certain medications have potential for ecological harm but there is no evidence of human health effects based on current studies
- Risks associated with accidental exposure outweigh the potential risk to the environment from flushing these select medicines

# Medication Reuse Programs

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- ❗ FDA does not endorse the practice of reusing medications that were previously prescribed and dispensed to another patient
- ❗ The safety and efficacy of a medication can not be guaranteed after it has been dispensed to the public
- ✓ No way to verify proper storage conditions
- ✓ Determine if tampering has occurred





# Legislation

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- 👉 “Secure and Responsible Drug Disposal Act of 2010”
- 👉 Signed into public law October 12, 2010





# U.S. Department of Justice Drug Enforcement Administration Office of Diversion Control

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## Got Drugs?



### NATIONAL TAKE-BACK INITIATIVE

## Got Drugs?



**September 29, 2012**  
**10:00 AM - 2:00 PM**

The Drug Enforcement Administration (DEA) has scheduled another National Prescription Drug Take-Back Day which will take place on Saturday, September 29, 2012, from 10:00 a.m. to 2:00 p.m. This is a great opportunity for those who missed the previous events, or who have subsequently accumulated unwanted, unused prescription drugs, to safely dispose of those medications.

The American people have again responded overwhelmingly to the most recent DEA-led National Prescription Drug Take-Back Day. On April 28th, citizens turned in a record-breaking 552,161 pounds (276 tons) of unwanted or expired medications for safe and proper disposal at the 5,659 take-back sites that were available in all 50 states and U.S. territories. When the results of the four Take-Back Days to date are combined, the DEA and its state, local, and tribal law-enforcement and community partners have removed over 1.5 million pounds (774 tons) of medication from circulation.

"We are pleased at the response of the American people once again, and we thank them for participating and contributing to the battle against prescription drug abuse," said DEA Administrator Michele M. Leonhart, who added that 4,268 agencies participated with DEA nationwide in Saturday's event. "While a uniform system for prescription drug disposal is being finalized, we will continue to sponsor these important take-back opportunities as a service to our communities. Our take-back events

## National Prescription Drug Take-Back Day

The Drug Enforcement Administration (DEA) has sponsored four take-back events. The four Take-Back Days removed 1.5 million pounds (774 tons) of medication from circulation.



# Please Note:

Always follow Federal, State, and local regulations and package insert guidelines for the safest, legal, environmentally-responsible method of disposal of pharmaceuticals.



# Additional Resources

🔥 ANA's Pharmaceutical Waste Position Statement

<http://ana.nursingworld.org/position/phwaste>

🔥 FDA's Website

<http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/ensuringsafeuseofmedicine/safedisposalofmedicines/ucm186187.htm>

🔥 FDA's Drug Disposal Tips for Patients

<http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/UnderstandingOver-the-CounterMedicines/ucm107163.pdf>



# Where Do Used Sharps Go?

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Victoria Wagman

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# The Summer of Medical Waste

## Medical waste washes ashore along Long Beach Island on eve of long holiday weekend

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Bill Gross

Director of the Long Beach Island Health Department Timothy J. Hilferty displays containers with medical waste and debris that

Posted: Thursday, September 3, 2009 3:40 pm

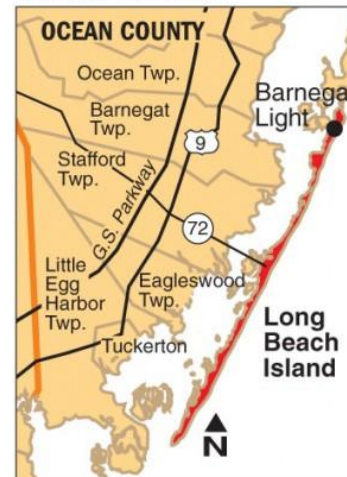
By DONNA WEAVER Staff Writer |

**LONG BEACH TOWNSHIP** - Officials are cleaning up home medical waste and debris washup along all of Long Beach Island's 18 miles. Tim Hilferty, director of the Long Beach Island Health said reports of the washup started coming in at around 11 a.m. this morning. Hilferty said the state Department of Environmental Protection conducted a flyover of the area this morning, but the results are not in yet.

Hilferty attributed the washup to combined sewer overflow from the northern area of the state and New York. He added that the recent storms have also contributed to the washup. No beaches were closed as a result of the washup, he said.

"The beaches are clean. We were all out there cleaning up," he said.

Medical waste and debris wash up along all of Long Beach Island's 18 miles.



By Donna Weaver, The Press of Atlantic City



# Injections in the Home Setting

- There are approximately 9 million syringe users in the U.S.
- 3 billion injections per year take place in the home



# Injections in the Home Setting

- Syringes in the home are commonly used to treat:
  - ✓ Diabetes
  - ✓ Allergies
  - ✓ Infertility
  - ✓ Arthritis
  - ✓ Migraines
- Illegal drug use is another cause for syringes in the home





# Improper Sharps Disposal in the Community

➤ Used syringes have been found in:

- ✓ Trashcans
- ✓ Recycling bins
- ✓ Parks
- ✓ Playgrounds
- ✓ Sidewalks

➤ Others are flushed down the toilet





***Inappropriate sharps disposal increases  
the risk of needle stick injuries!***



# Groups Vulnerable to Needle Stick Injury

- Healthcare workers
- Sanitation workers
- Custodial staff and housekeepers
- Law enforcement personnel
- Family, friends, children





## The Risks of the Job: Protecting Law Enforcement from Needle Stick Injuries

by CDPH OA [PLUS](#) 2 years ago



Photo by Gretchen Hildebran, courtesy of California Department of Public Health, Office of AIDS



# Injury From Contaminated Sharps

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- Used needles and other sharps can injure people and spread infections that cause serious health conditions.
- The most common infections are:
  - ✓ HIV
  - ✓ Hepatitis B (HBV)
  - ✓ Hepatitis C (HCV)

# Safety First!

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- Eliminate use of needle devices where safe, effective alternatives exist
- Use needle devices with safety features
- Training on the safe use and disposal of needles
- Change/eliminate work practices that pose a risk of needlestick

Source: ANA's Preventing Needlestick Injuries Employer's Checklist, 2010,  
ANA



# Best Way to Get Rid of Used Needles and Other Sharps

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- Step 1: Place all needles and other sharps in a sharps disposal container immediately after they have been used.
- Step 2: Dispose of used sharps disposal containers according to your community guidelines, observing all Federal, State and local regulations.

# Recommendations for Safe Sharps Disposal

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 FDA recommends 4 options for disposing of used sharps:

1. Drop boxes/supervised collection sites
2. Household hazardous waste collection sites
3. Mail-back programs
4. Residential special waste pick-up services





# Drop Boxes/Supervised Collection Sites

☞ This service is available in the following states:

- ✓ California
- ✓ Florida
- ✓ Michigan
- ✓ New York
- ✓ Rhode Island
- ✓ Wisconsin



Photo compliments of San Ramon Valley Fire, California  
Photo by Jason Evans, courtesy of Cedar Rapids/Linn County  
Solid Waste Agency



# Household Hazardous Waste Collection Sites

- 🔥 Drop off containers at local public household hazardous waste collection sites
- 🔥 Typically accept household cleaners, paints and motor oil



Photo courtesy of Lane County

# Mail-Back Programs

- Various vendors offer several options
- Costs range from \$25-\$45, and higher for larger containers



Photo courtesy of Recycle San Diego

# Special Waste Pick-Up

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- Trained special waste handlers sent to collect sharps containers from your home
- Service is fee-based
- Special requirements for containers
- Either request pick-ups, or regular pick-up schedule
- Contact your local waste management department to check for availability in your area



# Please Note:

Always follow Federal, State, and local regulations for the safest, legal, environmentally-responsible method of disposal of medical waste, including sharps.



# Resources

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- FDA's Safe Disposal of Medicines Website  
[www.fda.gov/safedisposalofmedicines](http://www.fda.gov/safedisposalofmedicines)
- FDA's Safe Sharps Disposal Website  
[www.fda.gov/safesharpsdisposal](http://www.fda.gov/safesharpsdisposal)
- Coalition for Safe Community Needle Disposal  
<http://www.safeneedledisposal.org/>
- Consensus Statement and Call to Action  
<http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/SafeNeedles/SharpsSafety/ConsensusStatement-SharpsSafety.pdf>
- ANA's Needlestick Prevention Website  
<http://nursingworld.org/MainMenuCategories/WorkplaceSafety/SafeNeedles>



# Contact Information

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