

Information Statement

Appropriate Storage and Disposal of Prescription Opioid Medicines

This Information Statement was developed as an educational tool based on the consensus opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.

The United States is in the midst of an epidemic of opioid use, misuse, and abuse. To address this critical public health issue, all physicians and orthopaedic surgeons must be accountable for their direct or indirect contributions to the epidemic and can help develop solutions to effectively treat this epidemic. Prescriptions for opioids for injury or postoperative pain often go at least partially unused. Improper storage and disposal of opioids leaves them vulnerable to accidental exposure, misuse, and theft leading to diversion, injury or death.¹ Opioids are addictive, can depress respiration, and can lead to overdose and even death.

Among opioids obtained by surgical patients, 42% to 71% of pills go unused.¹ Around three-quarters of prescriptions are not stored in a locked container.¹ Fewer than 9% of patients currently dispose of unused prescription opioids. Consistent encouragement and education about proper storage and disposal of opioids is likely to significantly decrease the number of unused opioids available for diversion and misuse.^{1,2}

The AAOS believes that a unified approach involving surgeons, pharmacists, other clinicians and law enforcement can improve awareness of appropriate storage and disposal strategies for prescription opioids.

Orthopaedic surgeons and their team members can effectively communicate strategies and resources for storage and disposal of unused prescription medicines and emphasize the importance of such actions. Orthopaedic practices in partnership with pharmacists should establish protocols/policies to better inform patients on appropriate/inappropriate storage of opioids.

The American Academy of Orthopaedic Surgeons supports the following strategies for safe use, storage and disposal of opioids:

Opioid Storage Strategies:

- Remove prescription opioids from the medicine cabinet
- Hide or lock up opioid medications
- Keep prescription medications in their original packaging so it is clear for whom the medications were prescribed and to save the directions for appropriate use
- Do not save prescribed medication for future use, unless directed otherwise
- Do not share medication

- Safely dispose of unused pills

Opioid Disposal Strategies:

- **Stationary Drop Boxes:** Use designated drug disposal units or “take back” resources wherever available. Resources to find a disposal site near you include:
 - [Drug Enforcement Administration \(DEA\) Controlled Substance Public Disposal Locations](#)
 - [Allied Against Opioid Abuse - Where to Dispose of Medication](#)
- **Take-Back Events:** Participate in events hosted by local or federal law enforcement agencies. The Drug Enforcement Administrations (DEA), semiannual event, National Prescription Drug Take Back Day as a way to dispose unused, unwanted, or expired prescription drugs in a safe, convenient, and responsible way. Since 2010, federal, state and local partners have collected and dispose of nearly 11 million pounds of unused pills through this program.³
- **Mail-Back Programs:** Allow patients to put unwanted medications in a special package that is shipped to a DEA authorized collector. Some pharmacies make mail-back programs available to consumers.
- **Mixing:** This strategy should only be recommended if there are no take-back locations or programs in the area. Consumers can dispose of unwanted drugs through the following steps:
 - Remove labeling from the pill bottle;
 - Do not crush tablets or capsules;
 - Mix the drugs with an unpalatable substance such as kitty litter or used coffee grounds;
 - Place the mixture in a container such as a sealed plastic bag; and
 - Throw the container containing the substance in the household trash separate from the pill bottle. *Other technologies have been developed to provide additional options for patients to use in the disposal of medicine in the household trash. Visit FDA.gov to learn more.

Professional and Organizational Collaboration Efforts: Partnerships can be established among hospitals, practices, pharmacies, law enforcement, insurers, universities, and state and medical professional organizations. Places frequented by patients (i.e. practice or hospital) are most convenient for opioid disposal. Patients should understand that opioid medications are dangerous and practice safe storage and disposal. The patient’s family, friends and caregivers should also be aware of the risks of misuse and strategies that can be utilized to mitigate such risks.

In the United States, there is a current lack of understanding of acceptable means of disposal and resources available. Establishing helpful strategies and effectively communicating them to patients and caregivers will address the gap of knowledge and awareness. Physicians, pharmacists, other healthcare providers, and law enforcement in the United States can work together to raise awareness and establish additional resources to ensure accessibility to proper disposal.

References

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2. Reddy, Akhila et al. "Patterns of storage, use, and disposal of opioids among cancer outpatients" *oncologist* vol. 19,7 (2014): 780-5.
3. U.S. Drug Enforcement Administration. "DEA achieves significant milestone during 16th National Prescription Drug Take Back Day.

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