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Many of us turn to the Internet to simplify our day-to-day transactions, reserving plane tickets, finding apartments and keeping in touch with old friends via cyberspace. Some of us even buy products such as prescription drugs online. This is one online transaction, says Dr. Marv Shepherd, which requires caution.

Before you click the mouse to have that antibiotic, asthma inhaler or cholesterol-lowering drug sent to your door, consider the risks, says Shepherd, the Klinck Centennial Professor in the College of Pharmacy and director of the Center for Pharmoeconomic Studies at The University of Texas at Austin. That Web site may make your prescription drugs more convenient, but it may also make them more dangerous.



[Dr. Marv Shepherd's research and expertise on drug importation and drug counterfeiting has been featured on CNN, NPR and in Newsweek,](#)

"There's a big problem with rogue Web sites," Shepherd warns. "It's very difficult to determine whether a Web site represents an authentic pharmacy or a counterfeit drug pharmacy. You can't tell the good guys from the bad guys."

Shepherd has made it his mission to keep the bad guys from getting their products into the homes and bodies of American consumers.

Rogue Web sites abound. Shepherd reports that the Food and Drug Administration (FDA) surveyed Canadian pharmacy Web sites. They discovered 11,000 Web sites claiming to be Canadian sites selling pharmaceuticals. Closer analysis revealed that only 214 pharmacies in Canada sell pharmaceuticals over the Web.

And what about the other 10,000-plus sites? They included sites in Pakistan, Southeast Asia, Mexico and even Washington State. Consumers who order pharmaceuticals from them may receive counterfeit drugs with incorrect dosage, false labeling, no pharmaceutical benefit or worse.

"For many counterfeit products, it is difficult to distinguish the genuine product from the counterfeit product without a forensic test," Shepherd says. "They may have the brand name on them, but they aren't the brand name product."

studies on the U.S.-Mexico border on pharmaceuticals coming into the country from the south.

His concern was that people didn't know enough about the drugs they brought in from Mexico, given that Spanish-language labeling and variations in dosage could cause problems for individuals. Because the drugs were sold over the counter, no licensed pharmacist was overseeing their sale.

Shepherd spent a few months at the border crossing at Laredo, surveying customs declaration forms and talking to people who went across the border to buy pharmaceuticals. He discovered that the number one drug coming across the border was Valium, and that the top 15 drugs coming across were all narcotic or psychotropic drugs.

"This sent a message," Shepherd says. "We also noticed that it wasn't elderly people going across the border; it was primarily people in their 20s and 30s. And the number two drug coming in was Rohypnol."

Rohypnol is commonly known as the "date rape drug." Created as adjunct therapy with anesthetics for surgery and used in some countries for severe sleep disorders, Rohypnol erases memory. A fast-acting sleeping pill that's undetectable when slipped into a drink, the drug was being used to aid sexual assaults on unsuspecting women.

Shepherd reported the incidence of Rohypnol importation to the U.S. Treasury Department, then in charge of U.S. Customs Service. His documentation was key to the 1996 ban on the drug by the Customs Service.

Since then, Shepherd has become a crusader on issues of drug safety, with his expertise cited in publications from the Wall Street Journal to Time magazine. Thousands of people show up to hear him speak about drug importation and drug counterfeiting.

American consumers buying from American pharmacies don't have much to worry about, Shepherd says.

"I would have to say that the United States is one of the safest systems out there," he says. "It's what I refer to as a closed system. Everyone's got to be licensed, and they're talking about putting electronic tags on drug products that will track them through each point in the production process. You can't say the same thing about buying off the Internet."

The Internet can open consumers up to the potential of purchasing counterfeit drugs, which are a huge problem worldwide. While some counterfeit drugs may not harm those who take them, sometimes their impact can be devastating.

Some studies show that 20 percent of malaria deaths could be prevented if people were taking authentic anti-malarial medications and not fake ones. One million people die from malaria each year.

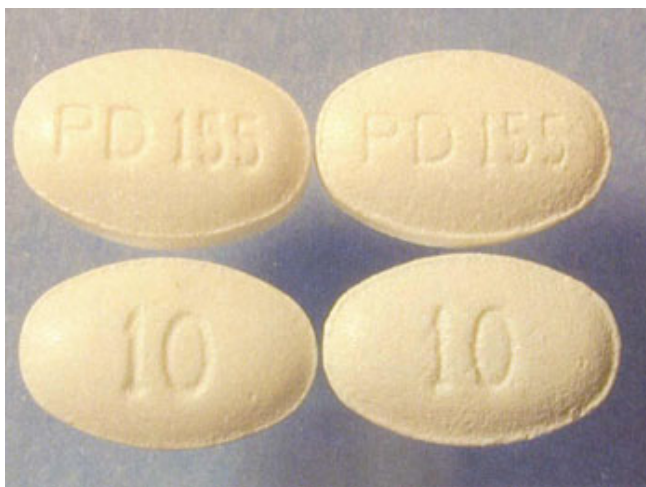
There's also the recent case of cough medicine deaths in Panama, where a Chinese company not licensed to sell medicine sold diethylene glycol, a cousin of antifreeze, passing it off as glycerin. The product ended up in cough syrups, antihistamines and other products in Panama, and has been confirmed responsible for nearly 100 deaths.

Is Your Online Pharmacy an Authentic Pharmacy?

Dr. Marv Shepherd says there are a few ways you can check to be sure. Every state maintains a state board of pharmacy, easily

If problems with drug counterfeiting seem especially dire right now, Shepherd says they're actually not new.

"Counterfeiting has been around for centuries," he says. "They were selling counterfeit products to the colonists from England and France."



For many counterfeit products, including pills, it is difficult to distinguish the genuine product from the counterfeit product without a forensic test, says Dr. Marv Shepherd of the College of Pharmacy.

Which one is the counterfeit Lipitor® above? The fake drug is on the left, and the authentic drug is on the right. Source: Pfizer Inc.

board.

In addition, you can look for the Verified Internet Pharmacy Practice Sites seal on the site. By clicking on the seal, a visitor is linked to a site where information about the pharmacy is maintained by the NABP.

agrees that pharmaceuticals have become prohibitively expensive and believes that it's going to become imperative to find ways of ratcheting prices down. It's a complicated task, however.

"The average product on the market right now cost about \$800 million in research," Shepherd says. "And it takes an average of 14 years to get a product to market.

"Seniors are always asking me why drugs cost so much, and I tell them you're not only paying for that one drug. You're paying for all the failures that happen in research. Drug research is expensive."

The situation is further complicated by the way drugs are distributed, according to Shepherd. Canada and countries in Western Europe mandate price controls on their pharmaceuticals, which limit the amount consumers pay for a drug. The price controls cover the cost of the product itself, but they don't cover all the cost of the research. American consumers are left with the remainder.

"It's a free market system, so the U.S. economy picks up most of the price of all the worldwide research," Shepherd says. "We may end up with price controls in this country, and that will satisfy the needs of today, but it won't provide for tomorrow's future drugs. I don't have a good answer for it."

For consumers trying to balance their pocketbooks with their medication needs, Shepherd advises they make sure they are taking advantage of any prescription drug programs available to them, from the recent Medicare changes for seniors to other government and community programs.

He also says that consumers should shop around, particularly for medications they take regularly. Pharmacy prices can vary. However, he recommends subsequently choosing a pharmacy and sticking with it.

"I don't think many consumers understand that someone should have a central record of all of your pharmaceuticals, so when you're getting a new pharmaceutical, they can check and make sure those drugs are compatible," Shepherd says. "A pharmacist is good at doing that."

He also recommends consumers ask for generic products whenever they're available. Generic drugs in this country are good quality drugs approved by the FDA.

He doesn't recommend crossing the border to purchase pharmaceuticals. The World Health Organization estimates that in Mexico, products either stolen, counterfeited or past their expiration date represent 10 percent of the pharmaceutical market. Even pharmacies in Canada will sell drugs that haven't met FDA approval and could be labeled or dosed differently than in the U.S. because of a separate approval process.

Shepherd warns consumers that cheaper is only better when the product is authentic, the dosage is correct and a professional pharmacist is overseeing the dispensing of the drug.

"That's why I got passionate over the entire issue," Shepherd says. "I'd see people thinking they were getting a cheaper drug, and they do get it cheaper, but you look at the product and there's nothing in it. Then you're spending your good money for nothing."

By **Vivé Griffith**

Banner photo: **Christina Murrey**

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