Bottom Line Secrets

Warning! Never Combine These Medications

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Special from Bottom Line/Personal

The office of the chief medical examiner of New York City reported that the death of 28-year-old actor Heath Ledger was caused by a combination of prescription drugs -- two narcotic pain relievers combined with antianxiety medication and sleep aids.

The use of multiple drugs is inherently risky. The FDA has identified thousands of potential drug interactions, many of which are minor. Serious problems tend to occur when patients take two or more drugs that affect the same body system. Each of the drugs used by Ledger, for example, can potentially affect cellular receptors that regulate breathing. Taken together, they had additive effects -- the combination was more powerful than the effects of any one of the drugs taken alone.

According to the federal Substance Abuse and Mental Health Services Administration, nearly 600,000 emergency room visits in 2005 (the most recent year for which data is available) involved prescription or over-the-counter drugs or supplements.

Caution: The risk for drug interactions is highest among the elderly. They tend to use the most drugs, and their bodies metabolize (break down) drugs more slowly than younger adults.

HOW INTERACTIONS HAPPEN

Patients who use medications appropriately -- taking the prescribed doses for only particular conditions and regularly reviewing drug use with a physician -- are unlikely to have serious problems.

Main risks: Different drugs prescribed by more than one doctor... using drugs to treat conditions for which they weren't originally prescribed (many people stockpile leftover drugs and use them later, possibly for unrelated conditions)... or using a drug that was appropriate initially but might be dangerous when combined with drugs a patient has subsequently started taking.

Protect yourself by frequently updating a list of the drugs and supplements you take. Review the list with every doctor at every office visit and whenever a new drug is prescribed.

Most common dangerous drug interactions...

OPIOID PAINKILLERS/SEDATIVES

Opioid painkillers, such as *hydrocodone* and *oxycodone*, have powerful effects on the central nervous system. Even on their own, they can suppress breathing when taken in high enough doses. The risk is much higher when they're combined with sedating drugs, such as those used to treat anxiety or insomnia. These include the benzodiazepine class of

medications, such as *diazepam* (Valium) and *alprazolam* (Xanax).

Many people take these drugs in combination. For example, someone might take alprazolam for chronic anxiety, then add hydrocodone following an injury. The drugs often are prescribed by different doctors who don't know the patient's drug history.

What to do: Never combine prescription painkillers and sedatives without your doctor's okay.

WARFARIN/ANTIBIOTICS/NSAIDS

The blood thinner *warfarin* (Coumadin) is notorious for interacting with other drugs. It has a narrow "therapeutic index," the difference between a helpful and a toxic dose. Drugs that increase the effects of warfarin can lead to uncontrolled bleeding.

Many antibiotics and antifungal drugs, including *erythromycin*, *ciprofloxacin* and *ketoconazole*, are broken down by the same liver enzyme that metabolizes warfarin. Taking warfarin and any of these drugs together may deplete the enzyme, leading to higher levels of warfarin in the body.

What to do: If you have an infection, your doctor can prescribe an antibiotic that is less likely to interact with warfarin. Antibiotics that are less likely to cause an interaction include *penicillin*, *amoxicillin*, *ampicillin* and *tetracycline*.

Caution: Warfarin may cause gastrointestinal bleeding when combined with aspirin, ibuprofen or other nonsteroidal anti-inflammatory drugs (NSAIDs). If you take warfarin and need a painkiller, *acetaminophen* (Tylenol) might be a better choice.

MULTIPLE ANTIDEPRESSANTS

Patients who combine selective serotonin reuptake inhibitor (SSRI) antidepressants, such as *fluoxetine* (Prozac) and *sertraline* (Zoloft), or who combine an SSRI with another type of antidepressant may experience *serotonin syndrome*, a rare but potentially fatal reaction.

Many antidepressants increase brain levels of serotonin, a chemical produced by some neurons (nerve cells). Patients who combine antidepressants or take too much of one can accumulate toxic levels of serotonin. This can cause dangerously elevated blood pressure, known as a *hypertensive crisis*.

Serotonin syndrome usually occurs when patients switch from an SSRI antidepressant to a monoamine oxidase inhibitor (MAOI), an older type of antidepressant, without allowing time for the first drug to wash out of the body.

What to do: Follow your doctor's instructions exactly when discontinuing an antidepressant. Most of these drugs have to be tapered -- slowly decreasing the dose over a period of weeks -- before starting a new drug.

Caution: Combining an MAOI drug with an appetite stimulant, such as *sibutramine* (Meridia), also can cause serotonin syndrome.

VIAGRA/NITRATES

Men who take nitrate drugs (such as *nitroglycerine*) for heart problems should never take *sildenafil* (Viagra) without a doctor's supervision.

Viagra and similar drugs for treating erectile dysfunction cause blood vessels to relax. Nitrate drugs do the same thing. Combining them can cause a dangerous drop in blood pressure.

What to do: Men who take nitrates for heart problems can talk to their doctors about safer alternatives for treating erectile dysfunction, including vacuum devices or penile injections.

ACETAMINOPHEN FROM MULTIPLE PRODUCTS

Taken in excessive doses, the pain reliever acetaminophen (Tylenol) can cause liver damage.

Main risk: Combining acetaminophen -- for treating arthritis pain, for example -- with unrelated products (such as cold/flu remedies) that also contain acetaminophen.

What to do: When using acetaminophen, don't exceed the dose listed on the product label -- and check labels to ensure that you don't take another product that contains acetaminophen simultaneously.

Bottom Line/Personal interviewed Cynthia Kuhn, PhD, professor in the department of pharmacology at Duke University School of Medicine, Durham, North Carolina, and codirector of Brainworks, a Duke program that develops education programs about the brain. She has studied the effects of alcohol, drugs and hormones on brain development and is a coauthor of *Buzzed: The Straight Facts About the Most Used and Abused Drugs from Alcohol to Ecstasy* (W.W. Norton).

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