

Barbiturates Reconsidered ■

When old A. Bayer looked at his life, he probably thought he'd accomplished quite a bit through his discovery of "Barbara's urates" back in 1864.

After all, how often does anyone cure *any* disease—much less four or five in a single stroke the way A. thought he had—in a lifetime, much less a single afternoon?

It's probably a good thing he didn't live to see the rough handling that history finally gave his discovery.

Because one by one, the uses Bayer dreamed up have fallen by the pharmaceutical roadside—partly due to the dangers of the compounds, partly due to the development of newer, less-risky substitutes.

Today, far from being seen as a cure or solution for much of anything (except an occasional sleepless night for the people who try to sell them), barbiturates mostly look like just one more problem to be dealt with—and, for some people, dealt with and dealt with and *dealt with*.

That's because barbiturates are serious drugs and can cause serious problems if you let them.

Don't let them. Because these barbs can sting for a long time. ■



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Some people just seem to have it, and other people don't. Take A. Bayer, for example.

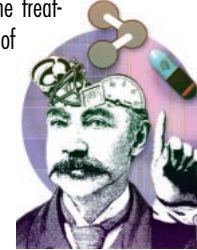
In a span of 30 years in the late 19th century, his German pharmaceutical firm discovered just about every compound and cure worth discovering—at least the ones that mattered most at the time, the ones that completely turned around the way that we looked at common diseases and treatments for those diseases.

Take heroin, for example. Or aspirin. Bayer's labs discovered them both, and both revolutionized the treatment of pain—and reorganized much of the psychic terrain of the late, great 20th century.

But one of Bayer's own discoveries would have almost as much impact on modern life and leisure.

That was his 1862 combination of urea and malonic acid, a new compound he dubbed "Barbara's urates"—in honor of the patron saint, St. Barbara, of the day he made his discovery, December 4.

It took him a while to figure out what, exactly, the compound was good for. But when Bayer and the boys back at the lab started finding uses for barbiturates, they nearly knocked medicine on its collective ear with the *sheer number* of applications they came up with.



Limits of genius. No matter how smart he was, A. Bayer couldn't foresee all the problems his discovery would cause.

■ Early Uses, Early Problems

Barbiturates, it seemed, were good for just about everything that could ail you.

They were an effective sedative for the terminally nervous. They helped dyed-in-the-wool insomniacs sleep like babies. They reduced seizure activity in epileptics and quieted the terror of long-hospitalized mental patients. They helped anesthetize patients before surgery.

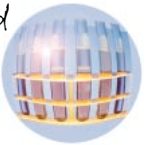
In short, barbiturates—all 2,500 or so that were eventually derived from Bayer's original formula—were true "wonder drugs" of the day.

But they weren't perfect—not by a long shot.

They turned out to be addictive, for one thing. And they cause life-and-death problems when used to excess. And they've *often* been used to excess.



Barbiturates are all variations on the same chemical theme, and they all produce similar effects and similar risks.



In fact, over the years, barbiturates have established a solid reputation as one of the surest routes around to pharmacological oblivion.

A. Bayer couldn't have guessed that things would turn out this way. If he had, he probably would have knocked himself out to find *another* drug to make the problems go away.

■ Basic Barbiturates

Because barbiturates are all variations on the same basic chemical theme, all produce more or less the same effects in more or less the same way—by slowing the flow of neural transmission throughout the central nervous system.

Still, there *are* distinctions.

Barbiturates are grouped—according to how fast (and how long) they work in the body and what they're prescribed for—into three main categories:

▶ **Ultrashort-acting.** (e.g. Sodium Pentothal®) They produce their effects quickly, usually within 20 minutes. They're used most often to prepare surgical patients for anesthesia.

▶ **Short- (or intermediate-) acting.** (e.g. Seconal®, Nembutal®) This group takes a little longer to start their effects, but works over a longer period of time. They're prescribed as sleeping pills, and are most subject to abuse.

▶ **Long-acting.** (e.g. phenobarbital) Long-acting barbs may not achieve full effectiveness for hours or days. They're often used to reduce seizures and calm anxiety.

■ Dosage & Effects

But regardless of their differences, the effects of individual barbiturates are remarkably similar.

▶ **Low doses** (say, 50mg or so), are similar to alcohol.

Effects involve a mild impairment of

thought and coordination and the same release of inhibition that enables drinkers to sing (even if they're tone deaf) or flirt (even if they're shy).

► **Moderate doses** (100-200mg, for example), produce effects that are more pronounced, with sleep a more-or-less predictable outcome.

Doses at this level can also cause a mild intoxication, complete with slurred speech, clouded judgment, and a greater release of inhibition.

► **High doses** (more than 200mg, in a non-addicted person), result in an even more intense—and more unpredictable—level of intoxication.

Here, users display wide mood swings, and may talk in a babbling, incoherent manner.

Coordination can be reduced to the point that ordinary activities—walking down stairs or driving a car—become serious, life-on-the-line emergencies. Normal judgment is markedly reduced at best, nearly nonexistent at worst.

And those are just the *behavioral* effects. In the body, higher doses can cause life-threatening symptoms—from lowered blood pressure and heart rate to cardiovascular collapse.

And no matter how good you feel or how much fun you're having, when that happens you're dead. As a doornail.

► Fade to Black

Drugs have destroyed their share of stars over the years, but none has done a more lethal job—or shorted-out more electrifying talent—than barbiturates.

Marilyn Monroe and Jimi Hendrix were only the two most prominent names on coroner's reports listing "barbiturate poisoning" or "depressant drug OD" as the cause of death.

Thousands of other names were there, too. And, as much as anything ever can, their deaths serve to remind us just how deadly barbiturates can be.

That's the main reason the drugs have declined both as medical drugs and in street availability in recent years.

Other drugs—especially the benzodiazepines (see "The Other Guys" box, at right, for details)—do many of the same things and pose much less of a life-threatening risk to health than barbiturates and have eclipsed them both in sales and the public consciousness.

Hopefully, they'll eventually do to barbiturates what barbiturates did to Marilyn and Jimi. ■



■ Life in the Last Lane

If you live long enough to get strung out on barbs and they still don't kill you, rest assured that they'll do the next best thing: They'll make your life miserable. Guaranteed.

One reason why is that addicts take a lot of barbiturates for a long time. And that causes a lot of problems.

What kinds of problems? *Lots* of problems—take impaired thinking and memory, for example, they're pretty common.

So are bad judgment, bad reflexes, and fatigue.

Don't like those? Then try these: depression, hostility, reduced sex drive, paranoia, and suicide.

On the physical side, there's deterioration of the central nervous system and damage to the liver and pancreas, both linked to the toxicity of the drug in the body.

Then there's addiction. Because whether A. Bayer foresaw it or not, barbiturates are addictive—powerfully so. Tolerance builds quickly. That means users have to keep raising their dosage to keep feeling the way they felt yesterday and the day before that. And *that* can mean disaster.

Because while tolerance to the *intoxicating* effects of barbiturates is fast, tolerance to the *respiratory-depressant* effects is slow, which means that things can get lethal PDQ.

And dying *does* happen—all the time, as a matter of fact. And if you think it can't happen to you because you're not that stupid, think again. *Everybody* who gets strung out on barbiturates is that stupid. And if you're not that stupid to begin with, don't worry about it.

Barbiturates will make you that way.

■ Emergency Exits

The best way to handle an overdose is to a) maintain breathing, and b) keep the person awake and moving—preferably in the direction of the nearest hospital.

That's because a barbiturate OD is a life-threatening emergency and common-sense remedies that might *seem* like they should work (like coffee and cold showers) don't always do a lot of good—especially if they wind up delaying *real* treatment.

After all, it's next to impossible to predict lethality, given all the factors (age, body size, tolerance, etc.) that raise or lower OD threshold.

And that task becomes even more difficult when alcohol (or



Flashpoint. Barbiturate OD's are often lethal because the drugs depress all areas of the brain—even breathing centers.

Barbiturate overdose is a life-threatening emergency, and everyday remedies that might *seem* like they should work don't always help—and may end up delaying real help.



another downer drug) gets added to the mix, since alcohol and other downers are metabolized by the same enzymes in the liver.

Since alcohol is a simpler molecule than barbiturates, it gets deactivated first, while barbs are re-absorbed into the bloodstream.

That means mixing alcohol and barbs (or other depressants) not only produces a deeper level of intoxication; it also produces a much greater depressant action on the heart and lungs—sometimes to the point that all systems are off. And all bets are off then, too.

■ Stuck & Unstuck

But say you're an addict and you live through an OD or two and you *stay* strung out. There's always withdrawal. That can kill you, too.

Because a full-fledged barbiturate habit is one of the hardest of all addictions to shake. It doesn't just involve discomfort and mental anguish (though they're both there, too).

It also involves seizures—even death, if you take too much too long.

The more serious health risks linked to barbiturate withdrawal typically follow high dosage levels (400mg or more a day) over a prolonged period—usually weeks or months.

Symptoms appear within 12-24 hours (depending on the drug) and peak within 24-72 hours (later, in the case of long-acting barbs).

In addition to garden-variety withdrawal symptoms (chills, cramps, and insomnia), barb detox can cause delirium, hallucinations, seizures, and (as we mentioned a moment ago) the *granddaddy* why-do-you-think-they-call-it-dope symptom of all: death, usually by cardiovascular collapse or cerebral hemorrhage.

Dying isn't an inevitable outcome of withdrawal, but it does happen often enough (in as many as 5 percent of all cases involving severe addiction) that it's not exactly a fluke, either.

What to do? If you're addicted, get yourself into a detox facility. Withdrawal is more than tough. It can also be dangerous.

■ Relatively Risky: Non-Barbiturate Sedative-Hypnotics

Science has been hot on the trail of a good safe alternative to barbiturates almost since the first commercially-produced barbiturate, Veronal, rolled off the assembly line in 1903.

The problem with most of the early non-barbiturate sedative hypnotics (as *any* new non-barbiturate sleeping pill came to be called) is that most were as bad as (and some worse than) the drugs they were designed to replace. And while newer drugs have minimized a lot of the early problems, no depressant drug yet has proven perfect. All are addictive given half a chance, and all cause problems given less of a chance than that.

Here are some of the more common non-barbiturates in use today—and their relative risk potential.

| GENERIC NAME | TRADE NAME(S) | PHYSICAL DEPENDENCE | PSYCHOLOGICAL DEPENDENCE |
|-----------------|---------------------|---------------------|--------------------------|
| methaqualone* | Quaalude®, Mandrax® | High | High |
| glutethimide | Doriden® | High | High |
| ethchlorvynol | Placidyl® | High | High |
| methyprylon | Noludar® | High | High |
| flurazepam | Dalmane® | Low | Moderate |
| triazolam | Halcion® | Moderate | Moderate |
| flunitrazepam** | Rohypnol® | Low | Moderate |

*Methaqualone is no longer manufactured or distributed in the United States. **Rohypnol is available in Mexico and Europe, but possession is outlawed in the U.S.