

One big question remains: Is prescription pot on the horizon? And the only answer, for the moment, at least, is yes *and* no.

It is, if proponents have anything to say about it, and expand their victories in recent electoral initiatives to other states. It isn't, if Washington drug warriors decide.

Only the future — and the courts — will tell how that conflict will play out.

Since marijuana contains so many different components, most research to date has been aimed at developing modified cannabinoids — drugs that produce therapeutic benefits without altering the brain or other systems.

Medical marijuana advocates remain skeptical, and continue to argue that therapeutic effects may result from the *interaction* of cannabinoids in marijuana itself, an interaction that may never be replicated synthetically.

Future therapies could well evolve along parallel paths. The “official” path will likely rely on synthetic compounds, while the “unofficial” path will continue as it has for centuries, with ordinary people treating themselves for everything from migraines to wasting syndrome.

We'll have to wait and see if cannabinoids fit into the medical wonderworld we're told awaits us in the future, but it's probably safe to say that, for some people at least, marijuana will still be around as a medicine, too.

It seems that it always has been. It may always be. ■

parallel paths

# marijuana



medical uses  
*is pot medicine?*



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One curious byproduct of our increasingly technological culture is the way we keep searching for natural solutions to otherwise-baffling problems.

It's a drive that's been a big part of the stuff we're made of since the beginnings of time: an innate desire to find keys in the natural world to unlock mysteries of both body and mind.

It's the impulse that discovered penicillin in a lab dish and which created vaccines for polio and smallpox out of the diseases themselves. And that same restless imagination is now being tested in the fight against AIDS.



*Smoke or fire? In recent years, marijuana has bounded out of the medical closet, and into the national spotlight.*

Today, that spark is heating up the debate over one of nature's oldest medicines: marijuana. And it's why pot is being taken seriously again in serious medical circles.

Most of the current interest stems from successes AIDS patients have reported in reducing appetite loss, but pot's value has also been noted against neuromuscular disorders and the side effects of cancer chemotherapy.

The recent endorsement, by voters in 12 states and the District of Columbia, of initiatives authorizing medical use of marijuana only increased the interest.

And the opposition of the federal bureaucracy to the measures only intensified the controversy.

That's why we've put together this pamphlet.

Because even though the debate over pot's legal status may be far from over, the drug seems to have real value in treating problems that have baffled science for centuries. And *that* offers real hope to people in places where hope has been in awfully limited supply.

## Why the sudden interest in marijuana as medicine?

Actually, it's anything but sudden — or new. Marijuana has been a main ingredient in natural remedies for thousands of years.

natural law

Proponents argue that the reason drug companies oppose medical pot is because they can't patent a medicine that **literally** grows on trees.



Marijuana products were used in China and India as early as 3000 B.C. to treat a variety of ills — from easing the pain of childbirth to relieving asthma and epilepsy, even improving appetite and disposition.

In fact, at one time or another, marijuana has been used to treat just about every disease in the books, from sciatica to insomnia.

In the United States, as many as 30 marijuana-based medicines were distributed as recently as 1937 — when the Marijuana Tax Act closed the door on further medical use of the drug.

But the door didn't stay shut. And, as pot use expanded, researchers began to re-examine the drug's possible therapeutic uses. In fact, much of their interest was sparked by smokers themselves, who reported that the drug helped relieve a variety of problems.

## What kinds of problems?

At first, interest focused on common ills: headaches, menstrual cramps, and the like. Recently, pot's been tried against more serious conditions, including glaucoma, the “wasting syndrome” associated with AIDS, and such “movement disorders” as multiple sclerosis and Tourette's syndrome.

It's in these areas that marijuana has been thought to have the greatest therapeutic potential.

Its potential was deemed great enough and public support strong enough that, by 1997, then-national drug czar Barry McCaffrey commissioned the National Academy of Sciences to conduct a comprehensive two-year study of pot's value as a therapeutic drug.



The Academy's report, *Marijuana and Medicine: Assessing the Science Base*, probably disappointed both sides in the debate, by concluding that marijuana and its active ingredients (known as *cannabinoids*) show promise against a range of conditions, but not always to the extent that some advocates hoped.

According to the panel, marijuana is most effective in treating pain and wasting syndrome, and in relieving the nausea and vomiting caused by cancer therapies:

"For patients such as those with AIDS or who are undergoing chemotherapy, and who suffer simultaneously from severe pain, nausea, and appetite loss, cannabinoid drugs might offer broad-spectrum relief not found in any other single medication."

The panel agreed that pot seemed less effective against movement disorders, epilepsy, and glaucoma.

### ■ How does marijuana produce therapeutic effects?

That's hard to say. Marijuana is a complex drug made up of at least 400 compounds — 60 of which occur nowhere else in nature. That's why establishing which ingredient produces which effect is still an often-uncertain process.



Pot Potion. Tincture of cannabis, from a 1929 pharmaceutical catalog.

Another reason is that most of marijuana's therapeutic effects — including its ability to improve appetite, and to reduce nausea, vomiting, and muscle spasms — are mediated and modified by its interaction with the central nervous system.

That means that one or more of the cannabinoids could produce a CNS effect (say, a temporary alteration at the binding site of a single neurotransmitter) which in turn may produce the desired therapeutic effect.

Oddly, pot's main mood-changing agent — delta-9 tetrahydrocannabinol, or THC — may be behind many of the drug's therapeutic actions.

Recognizing THC's effectiveness in relieving nausea brought on by cancer chemotherapy, the U.S. Food and Drug Administration in 1985 approved a synthetic version of the drug called *dronabinol*.

It's distributed under the trade name, *Marinol*®.

**a**bsorbing a drug via inhalation holds obvious advantages for patients who can't even keep **food** down, much less tablets or capsules.



### ■ Does that mean pot cures cancer?

Not at all. THC and other cannabinoids don't do a thing to block or prevent tumor growth.

What THC *does* do is relieve the severe nausea and vomiting caused by anti-cancer agents.

Still, it doesn't work for everybody. In its report, the NAS panel cited a New York study of cancer patients who had been unresponsive to other anti-nausea drugs.

While 34 percent of the group rated marijuana as moderately or highly effective, nearly one in four couldn't tolerate smoking it — either due to its psychoactive effects or their own inexperience with smoking.

Still, the panel found that inhaled THC has real advantages over oral forms of the drug, especially onset of action — how quickly effects are produced.

Because of these factors, and because absorbing a drug via inhalation holds obvious advantages for pa-

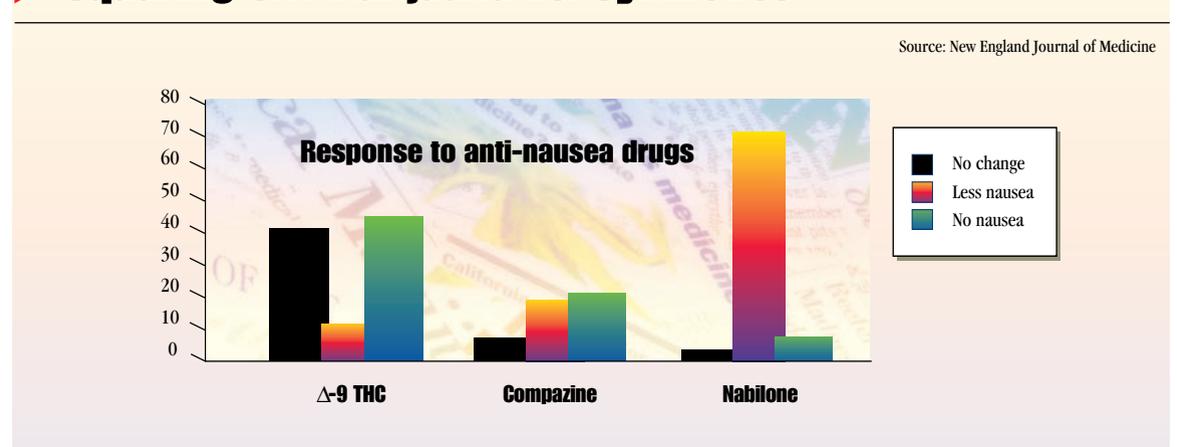
tients who can't even keep *food* down, much less tablets or capsules, the panel recommended new research into alternative methods of "delivering" marijuana to the lungs, including the use of vaporizers.

### ■ Have any problems been linked to medical marijuana?

Some. Perhaps the biggest worry concerns potential effects on the body's immune system. Although any impairment seems slight and temporary in healthy users, *any* loss of immune system function could have serious consequences for severely-ill patients.

Other potential problems center on damage to the lungs and respiratory system caused by smoking marijuana, particularly since pot smoke contains almost as many tars and cancer-causing chemicals as tobacco.

## ▶ Squaring Off: Marijuana vs. Synthetics



**Contrasting Claims.** THC may be better than other medications at lifting the nausea caused by anti-cancer drugs. In this test, it generated twice as many "no nausea" reports than Compazine, a common anti-nausea agent, and nabilone, a THC-like substance.

One problem with both marijuana and *Marinol* involves THC's psychoactive effects, which some users find unpleasant. In studies by Roxane Labs, *Marinol*'s manufacturer, 24 percent of subjects receiving that drug reported effects ranging from drowsiness and dizziness to anxiety and "muddled thinking."

Some medical-pot proponents charge that the psychoactive effects produced by *Marinol* are more pronounced than those triggered by marijuana itself. They argue that the real reason drug companies oppose pot is that they can't patent — and don't stand to make any money off of — a medicine that literally grows on trees.

Other problems involve the drug's side effects, particularly speeded-up heart rate. Both effects are usually harmless in healthy individuals, but could pose problems in the elderly and the very ill.

## ▶ Politics and Medicine

If you (or someone you care about) might benefit from medical marijuana, can you get it, legally? No.

Because even though laws to permit medical use have been enacted in at least 12 states, and 35 state legislatures have passed resolutions endorsing compassionate use, marijuana is still a Schedule I controlled substance under federal law.

That means it's officially recognized as having no "accepted medical use." And despite the support of professional groups and publications (including the *New England Journal of Medicine*), that's not likely to change any time soon.

So what can you do? One option is to move to a state that allows compassionate use. At least in those places, you'll have state law on your side, even if you don't have access to medical marijuana.



If that's impractical, you can do what millions of users have been doing for years: buy pot on the street. And while we don't recommend that for a couple of reasons (including the risk of arrest or side effects from contaminants), it's the fastest (and only) way currently for a sick person to get a supply.

If you have the patience you can try for a legal prescription, by filing a "Compassionate Investigational New Drug" application with the FDA. Then write a member of Congress or two. It's a long shot, but for now, it's the only shot you've got.

For more information, contact Americans for Safe Access via their web site at [www.safeaccessnow.org](http://www.safeaccessnow.org). ■