

SUMMER / FALL 2009

H I G H D E S E R T

# PULSE

Healthy Living in Central Oregon

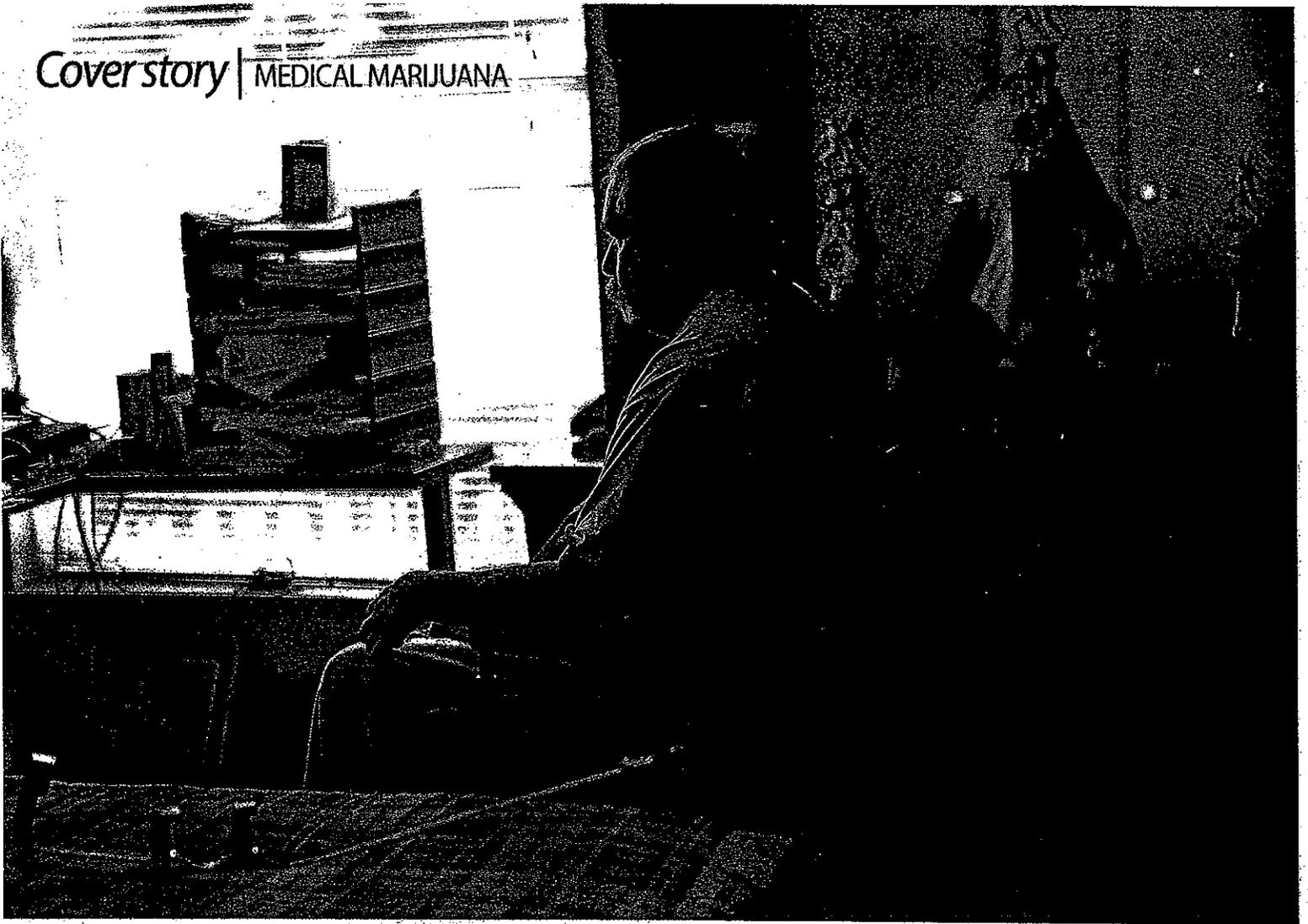
## Pot in a pill

It's here. It's legal.  
So why does  
Oregon still have  
medical marijuana?

End-of-life treatment  
When more is too much

The package deal  
Truth in food labelling

Back-to-school health  
Are they up on their shots?



ROB KERR

Martin Halsey is one of more than 20,000 Oregonians allowed to use marijuana as medicine. Halsey, who is quadriplegic, says it eases painful muscle spasms.

# Marijuana as medicine

## Could pharmaceuticals make Oregon's program obsolete?

BY LILY RAFF

Let's do a little experiment with marijuana: We'll start with the plant, with its iconic, five-fingered leaves and its fuzzy flowers filled with potent psychoactive compounds.

Now forget that it's rolled into joints, smoked out of bongs and baked into brownies. Ignore that it's the most widely used illegal drug in the U.S., and the cause of more than 872,000 arrests each year.

Strip away its multitude of slang names, its prominent place in rap music and Cheech and Chong movies and its reputation as a gateway drug.

Instead, focus on the plant's reported medicinal properties. The herb has been found to quell nausea, control pain, relax spastic muscles, relieve eye pressure, stimulate a poor appetite and calm anxiety.

So let's extract those helpful properties from the herb and put them in a controversy-free pill, available in precise doses by a doctor's prescription. Voila. Medical marijuana, objection-free.

OK, fun experiment. But why not try it in real life?

The short answer is, scientists already have. A synthetic version of one integral part of marijuana is available by prescription, under the brand name Marinol.

But the long answer is, of course, more complicated. Marinol doesn't work for everyone. And it replicates just one of the hundreds of chemical components in marijuana, at least 70 of which are unique to the plant.

Here's where politics barge into our experiment.

Other forms of marijuana-based prescription drugs are scientifically possible, experts say, but legal and social hurdles prevent widespread medical research on the plant.

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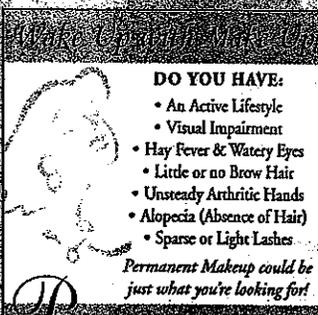
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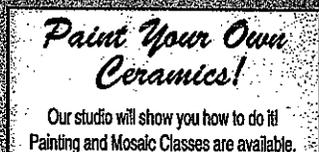
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With marijuana, "you've got an unregulated substance, potentially coming from an unknown source, that the patient's going to use in an unknown way," Stewart says. "Are they going to use it once a day before bedtime? Are they going to use it all day long? Are they going to sell it?"

Oregon's medical marijuana program allows patients to grow their own marijuana or designate a proxy to grow the plants. The number and size of the plants is limited, but patients have a constant supply that does not have to be refilled by a pharmacist or reviewed by a doctor.

"With most drugs, you prescribe a very specific amount, to be taken at a specific time, for a specific reason," Stewart says.

But Boone points out that prescription drugs are sometimes abused, too.

"One of the tough things about being a physician is that your intentions aren't always played out the way you wish they were," he says. "In truth ... you're not really in charge of a patient's health. The patient is." ■

## MARIJUANA LAWS IN THE NEWS

In 13 states, including Oregon, Washington and California, medical marijuana occupies a strange legal niche: State law permits it, but federal law prohibits it.

Beginning in 2001, Drug Enforcement Administration officials arrested dozens of medical marijuana users, growers and sellers in California. Most of the prosecutions involved large-scale growing operations and dispensaries in California, where state laws permit the sale of marijuana for medical purposes.

Earlier this summer, the owner of a marijuana dispensary in California was sentenced to one year and one day in federal prison and four years probation.

By contrast, Oregon does not permit the sale of marijuana for any use, and no individual may grow marijuana for more than four users. In 2005, the U.S. Supreme Court ruled that federal drug laws trump state laws, and the DEA can legally prosecute medical marijuana users and distributors.

But President Barack Obama has said that under his administration, unlike under George W. Bush's, federal officers will not actively pursue prosecution of medical marijuana users or growers who are in compliance with state laws.

Here in Oregon, medical marijuana is the subject of frequent debate within the Legislature.

Oregon's Medical Marijuana Program was first formed after voters passed an initiative in 1998. It is administered by the Oregon Department of Human Services.

In the past couple of years, the Legislature has considered several bills to protect the rights of employers to fire an employee who uses marijuana, even if he or she has a medical marijuana card. This year, a bill was proposed to prevent recreational marijuana users from obtaining medical marijuana cards to avoid the threat of arrest.

— LILY RAFF



*"I don't need that much of it. And I have a life. I have things that I want to do during the day."*

Martin Halsey, a medical marijuana user

*"This is not minor back pain. (Martin Halsey) is in a lot of pain and he deserves access to whatever medication gives him the best quality of life."*

Dr. David Stewart,  
Halsey's rehabilitation specialist

therapy appointment.

"He got sick while signing in for chemotherapy," Boone recalls. "He hadn't even had the chemotherapy yet, but he had what is called anticipatory nausea. It's a form of anxiety. He had a bad experience with chemotherapy and he was nauseated by the idea of going to get tortured again."

Marinol, he says, helped.

Still, Boone estimates that he prescribes Marinol for less than 5 percent of his patients. Other drugs are cheaper and more effective for most chemotherapy patients.

Boone says that most of his cancer patients who request medical marijuana are baby boomers or younger and have used marijuana

recreationally in the past.

"The 90-year-old that asks for medical marijuana is pretty unusual," he says.

When a patient brings up marijuana, Boone runs down a list of benefits of taking Marinol instead of smoking the plant.

"It keeps them from buying it on the street and it keeps them from having to smoke it," he says.

But Marinol comes at a high cost. Literally.

"I don't know the street cost of marijuana," Boone says, "but it's probably not as expensive as Marinol."

At local pharmacies, Marinol costs about \$23 for one 5-milligram pill. A typical prescription is two 5-milligram pills per day. That means a 30-day supply costs \$1,380. A generic form of the pill, called dronabinol, costs about \$12 for a 5-milligram pill, or \$720 for a 30-day supply.

Other medications that treat chemotherapy-induced nausea or stimulate appetite cost as little as \$2 per pill.

Still, doctors say they are more comfortable prescribing Marinol than signing a medical marijuana form.

CHOICE  
HEALTH PLANS

## FEDERAL REGULATION OF DRUGS

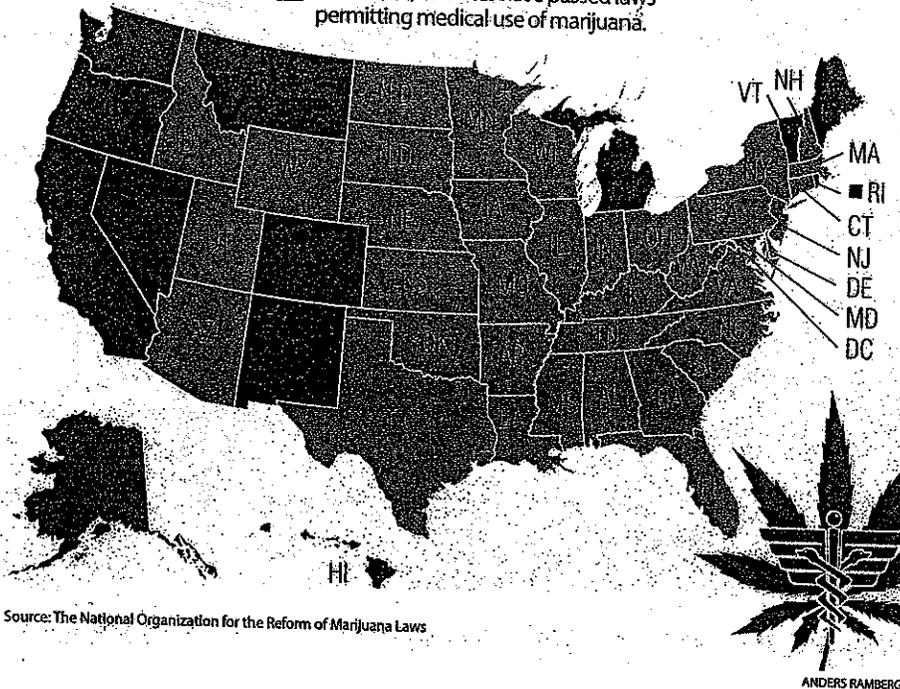
Controlled drugs are divided into five categories, called schedules. Schedule I drugs are the most tightly controlled and Schedule V the least. Here are some examples:

- Schedule I:** Heroin, marijuana, LSD, "the clear" (used by athletes; effects similar to steroids but harder to detect)
- Schedule II:** Cocaine, morphine, amphetamines, Ritalin (anti-Attention Deficit Disorder)
- Schedule III:** Marinol, anabolic steroids, ketamine (general anesthetic used recreationally as "Special K")
- Schedule IV:** Xanax (anti-anxiety, anti-depression), Valium, Ambien (sleeping pill)
- Schedule V:** Lomotil (anti-diarrheal), Robitussin A-C (cough syrup with codeine), pyrovalerone (stimulant used for chronic fatigue syndrome).

Source: Code of Federal Regulations, Section 1308

## STATES WITH MEDICAL MARIJUANA PROGRAMS

■ Since 1996, 13 states have passed laws permitting medical use of marijuana.



And so patients in Oregon, and the other 12 states that permit marijuana use for some medical reasons, continue to rely on the natural herb, with all the health risks, connotations, contradictory laws and controversial politics still attached.

### Tangled laws

All drugs regulated by the federal government — from prescription medications to illegal substances — are sorted into one of five classes, called schedules, according to criteria such as medical value, potential for harm and risk of abuse. Schedule I drugs are the most tightly controlled, and Schedule V the least.

Marijuana is a Schedule I drug, which means the federal government recognizes no medical use for the drug, and its possession, sale and consumption are illegal in every case.

Indeed, some medical marijuana opponents argue that with so many prescription drugs legally available, there is no real need for marijuana.

Oregon is one of 13 states, however, that have passed laws permitting marijuana use to treat certain medical conditions. These laws prevent state or local authorities from arresting medical marijuana users who are in compliance with the state program.

In 1998, Oregon voters approved an initiative that allows patients with certain medical conditions and confirmation from a doctor to pay about \$100, fill out some forms and obtain a medical marijuana card. The card is good for one year, then it must be renewed. State law allows the cardholder to consume marijuana, grow up to six mature plants and keep up to 24 ounces of dried, ready-to-use marijuana on hand.

But Oregon's laws do not necessarily prohibit the federal government from making drug arrests. After all, marijuana is uniformly illegal in the eyes of the federal government.

This puts medical marijuana users — as well as the doctors who

sign their medical marijuana forms and their designated growers who prepare the drug — in a precarious position.

Several doctors and medical marijuana users declined to be interviewed for this article.

"I think some doctors just don't want to get caught up in it," says Dr. Stephen Kornfeld, an oncologist at Cancer Care of the Cascades, which is affiliated with St. Charles in Bend and Redmond. "There's some fear that (the state) could change the law and decide to go after the doctors who have been allowing their patients to use it."

Oregon's medical marijuana program started small. Just 600 Oregonians signed up for the program in 2000. Now there are 988 patients enrolled in Deschutes County alone. Statewide, 20,307 patients held medical marijuana cards as of July 1.

One participant is Martin Halsey, who is quadriplegic and lives in Bend.

### Profile of a user

Halsey had completed a tour of duty in the Air Force and was working as a ski lift operator at Mt. Bachelor in 1985 when he went skiing during a blizzard on his day off.

He launched himself off what he thought was a ski jump near the main ski lodge, but it turned out to be a rocky outcropping covered in a thin layer of snow. He landed head-first. As his body hit the snow with a thud, he heard his neck crack.

"Luckily, I ended up on my back," he recalled recently from his tidy mobile home in northeast Bend. "I could breathe."

Halsey remembers his goggles were askew. He couldn't move his arms or his legs. Snow was coming down so hard that he couldn't see the sky. He was terrified.

A co-worker skied down the run after Halsey and found him lying in the snow.



ROB KERR

Marijuana is grown indoors, under special lights. Support groups offer horticulture advice for patients.

"I told him, 'Don't move me, I broke my neck,'" he said.

The co-worker threw a jacket over Halsey to help him keep warm, then rushed down to find help.

Halsey's neck was broken between the fifth and sixth cervical vertebrae, just a few inches below the base of his skull. He is completely paralyzed from the chest down. He has some movement in his arms, but little strength. He struggles to hold even light objects in his hands.

He uses a motorized wheelchair that he

can steer and control with one hand.

Muscle spasms cause Halsey, who is now 53, near-constant pain and make it hard to fall asleep.

"I have a lot of anxiety," he adds. "Anxiety just goes with the territory of being injured."

In the years since his injury, Halsey has tried a long list of prescription drugs to treat his symptoms, including muscle relaxers to ease painful muscle spasms and pain medications to temper inflamed nerves. He has also tried a number of anti-anxiety pills.

But many of those drugs made Halsey feel loopy and drowsy. And some of the drugs had no effect whatsoever.

Instead, Halsey now smokes one joint, or marijuana-filled cigarette, each day. That's a little less than half a gram of dried marijuana flowers.

He waits until about 5 p.m. when he's home for the night, back from the library, the doctor's office, a friend's house or the aquarium store where he buys supplies for his saltwater fish tank.

Within minutes of his first inhalation, Halsey feels the seizing muscles in his hands relax. He worries less. The constant pain dulls to a more bearable level.

But he's not too drowsy to watch a baseball game or manage his online fantasy baseball team until bedtime.

Halsey's medical marijuana card does not limit how much marijuana he can consume. But Halsey says that even though he could smoke marijuana all day long, he wouldn't.

"I don't need that much of it," he says. "And I have a life. I have things that I want to go do during the day."

That's the irony of Halsey's decision to smoke marijuana instead of popping pills. Despite marijuana's popularity as a recreational drug, Halsey says it actually makes him feel less foggy and drowsy — more like himself — than the prescriptions.

His physician, Dr. David Stewart, a rehabilitation specialist at The Center: Orthopedic & Neurosurgical Care & Research, says he believes Halsey.

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# MARIJUANA: PLANT VS. PILL

Comparing marijuana with its synthetic prescription form, which goes by the brand name Marinol.

	Marijuana	Marinol or generic equivalent
<b>Form</b>	Dried flowers or leaves	Pill
<b>Method</b>	<p><b>Smoking</b></p> <ul style="list-style-type: none"> <li>Reaches bloodstream in minutes</li> <li>Potency varies by plant</li> <li>Risk of lung damage</li> </ul> <p><b>Swallowing</b> (usually in baked goods)</p> <ul style="list-style-type: none"> <li>Reaches bloodstream in 1-2 hours</li> <li>Potency varies depending on temperature, how well batter was mixed, etc.</li> </ul>	<p><b>Swallowing</b></p> <ul style="list-style-type: none"> <li>Reaches bloodstream in 1-2 hours; individuals absorb sesame oil (in which medicine is dissolved) at varying rates</li> <li>Consistent potency at levels of 2.5, 5 or 10 milligrams per color-coded pill</li> </ul>
<b>Federal status</b>	Illegal; Schedule I drug (no approved medical use, high risk of abuse)	Legal by prescription; Schedule III drug (accepted medical use, moderate risk of abuse)
<b>Oregon status</b>	Legal use and possession permitted for patients who apply for and obtain a medical marijuana card	Legal by prescription
<b>Cost</b>	<ul style="list-style-type: none"> <li>Illegal to buy marijuana in Oregon; cardholder or named designee must grow it; requires equipment, space, sunlight, water and knowledge of horticulture</li> <li>Street price \$8-10 per gram or about \$300 per month</li> </ul>	\$12 (generic) to \$24 (name brand) per pill from local pharmacies; at typical dosage of two per day, \$720 to \$1,380 per month
<b>Ingredients</b>	<ul style="list-style-type: none"> <li>Delta-9-THC and approximately 70 chemicals unique to marijuana</li> <li>400 other chemicals that may temper the psychoactive effects of delta-9-THC and may have their own medicinal properties</li> </ul>	<ul style="list-style-type: none"> <li>Synthetic delta-9-THC</li> <li>Sesame oil</li> </ul>
<b>Effects</b>	<ul style="list-style-type: none"> <li>Can make users feel high, drowsy or weird</li> <li>Reduces anxiety, nausea, pain and eye pressure</li> <li>Stimulates appetite</li> <li>Can cause paranoia</li> <li>Exact effect varies by individual</li> </ul>	<ul style="list-style-type: none"> <li>Can make patients feel high, drowsy or weird</li> <li>Reduces anxiety, nausea and pain</li> <li>Stimulates appetite</li> <li>Exact effect varies by individual</li> </ul>
<b>History</b>	<ul style="list-style-type: none"> <li>Used for thousands of years for medicinal and recreational purposes</li> <li>Regulated by the U.S. government since 1937</li> </ul>	<ul style="list-style-type: none"> <li>Developed and tested in 1985; FDA approved for chemotherapy and AIDS patients in 1985</li> <li>Generic version (dronabinol) approved in June 2003</li> </ul>

Sources: Dr. Donald Abrams, Oregon Department of Human Services Medical Marijuana Program, NORML, Marijuana Policy Project, Bend area pharmacies, Solvay Pharmaceuticals Inc., Central Oregon Drug Enforcement

LILY RAFF AND ANDERS RAMBERG



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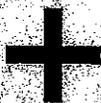
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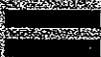
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### A doctor's opinion

According to Stewart, doctors accept the fact that any drug — prescription or otherwise — will have different effects on different individuals.

In fact, the doctor says he has had patients who tried marijuana but, unlike Halsey, found that it made their pain worse.

"That's the whole appeal of marijuana as a recreational drug: It enhances your sensory experience, whether it's music or whatever activity. And so I've had patients who came to me and said, 'I thought I'd try it and all it did was really enhance my ... pain,'" Stewart recalls.

Stewart says he had no qualms signing Halsey's medical marijuana form. Stewart knows and trusts Halsey, who has been his patient for years.

"This is not minor back pain," Stewart adds. "He is in a lot of pain and he deserves access to whatever medication gives him the best quality of life."

Under Oregon law, no physician may prescribe marijuana. Marijuana is not sold at pharmacies like a prescription drug. Instead, a patient fills out an application for a medical marijuana card. As part of the application, a state-licensed physician must sign a statement that:

- The applicant is a patient.
- The applicant has at least one of nine approved conditions or symptoms listed on the form.
- Marijuana may mitigate the patient's symptoms.

"Actually, the form makes my job very easy," says cancer specialist Kornfeld. "Because I'm not prescribing anything. I'm just checking a box that describes my patient's condition."

The system allows doctors to refuse to sign a form.

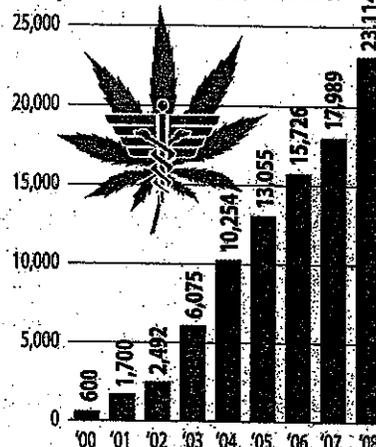
All of the doctors interviewed for this article said they are comfortable denying a patient's medical marijuana request. They said they would not sign an application for someone who is not a regular patient, or for a patient with mild symptoms.

"The last thing I want is to get labeled as the local 'pot doctor,'" Stewart says. "I don't want to be flooded by patients who all they're after is a marijuana card."

## GROWTH OF OREGON'S MEDICAL MARIJUANA PROGRAM

Oregon voters approved a measure in November 1998 that allows patients to legally use marijuana to alleviate severe medical symptoms.

Number of patients with medical marijuana cards from 2000 to 2008:



Source: Oregon Department of Human Services Medical Marijuana Program

ANDERS RAMBERG

*"The last thing I want is to get labeled as the local 'pot doctor.' I don't want to be flooded by patients who all they're after is a marijuana card."*

Dr. David Stewart, rehabilitation specialist at The Center

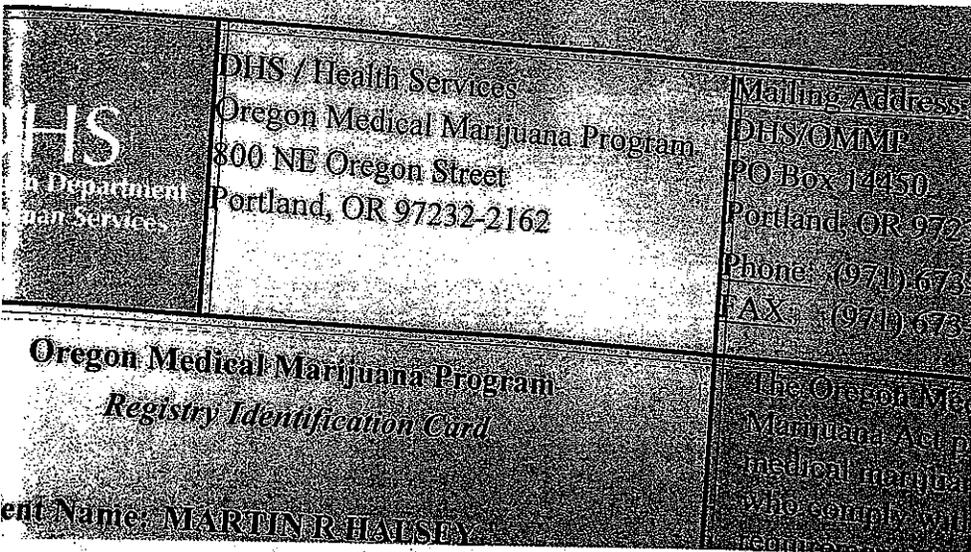
Stewart, who is one of seven busy doctors in The Center's department of physical medicine and rehabilitation, says his patients have a three-month wait for an appointment.

"If I got 10 more patients a month who were looking for a (marijuana) card, that would push things out even further for the patients who really need to see me," he says.

### Potential for abuse

Some doctors interviewed for this article said they would refuse to sign even for patients with certain approved conditions.

Stewart says he would not approve marijuana use for an Alzheimer's patient,



Martin Halsey's medical marijuana card, good for one year, is issued by the state.

*"Actually, the form (for medical marijuana) makes my job very easy, because I'm not prescribing anything. I'm just checking a box that describes my patient's condition."*

Dr. Stephen Kornfeld, oncologist at Cancer Care of the Cascades

because consuming marijuana is more complicated than, say, swallowing pills. Alzheimer's disease, an illness that involves debilitating loss of mental function, is on Oregon's list of conditions approved for medical marijuana use.

"Giving (marijuana to) somebody who is already losing their orientation and their basic ability to make good judgments ... is not a good idea," Stewart said.

Some nonprofits, including one called Mothers Against Misuse and Abuse, or MAMA, hold traveling clinics specifically to help patients qualify for Oregon's medical marijuana program.

A patient who has an underlying medical condition that is listed on the medical marijuana application may bring his or her records to a MAMA clinic, pay a \$250 fee and a physician will, in many cases, sign the application.

MAMA organizers say they are providing a service to sick Oregonians.

Deschutes County District Attorney Mike

Dugan says the clinics are one example of how the medical marijuana act is being abused. He suspects that recreational marijuana users are obtaining cards to avoid the threat of arrest.

A medical marijuana card, Dugan says, has become "a virtual get-out-of-jail-or-prosecution-free card."

After citing the number of medical marijuana cardholders in Oregon — more than 20,000 — he adds, "if you believe that there are that many sick people who cannot be treated without marijuana, I've got a bridge for sale."

Stewart admits that he feels some uneasiness over signing any medical marijuana application. He says he is always careful to tell patients that he does not condone their use of marijuana. And he notes that in patients' charts.

"There's this extra anxiety with marijuana, because there's a very strong prescription against it at the federal level," Stewart says. "And ... you could be perceived as suggesting it."

Unlike the drugs Stewart usually prescribes, marijuana plants grown by a patient or the friend of a patient haven't been tested by the Food and Drug Administration.

"It's not entirely benign," he says. "It's probably easier on your system than a lot of drugs you can take. ... But you really don't know how it's affecting your underlying health."

That's because despite marijuana's prominence as a criminal substance, and

Continued on Page 32

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Continued from Page 11  
 despite its reported medicinal properties, scientists still don't understand exactly how the drug works.

### A dearth of data

Dr. Donald Abrams is a cancer specialist and director of clinical programs at the Osher Center for Integrative Medicine at the University of California in San Francisco. He's also one of a handful of scientists to perform research on medical marijuana and have his results published in major medical journals, including the *Annals of Internal Medicine*.

"There's definitely a stigma attached to marijuana studies. It's not easy to build an academic career on it," he says.

Few groups are willing to fund marijuana research. Drug companies have little motivation because it is almost impossible to patent a plant. The National Institute on Drug Abuse only funds studies that look at marijuana as a "substance of abuse." Two of Abrams' studies have qualified for NIDA funding because they examined the physical effects of mari-

juana in a way that could be applied to both abuse and medical use.

The University of California established the Center for Medicinal Cannabis Research in late 2000 and funded some of Abrams' research before running out of money.

"I don't know who's going to continue to fund studies," he says.

Abrams is wrapping up one study of chemical interactions between cannabinoids and opiates — ingredients in marijuana and opium, respectively.

"There's some evidence that cannabinoids boost the painkilling effects of (opiates such as) morphine or OxyContin," he says. "So the idea is that people who are in a lot of pain, who are already taking opiates, might be able to enhance their effect with cannabinoids."

To get approval for a clinical trial, Abrams had to present the study to eight regulatory bodies, including the FDA, NIDA, the Drug Enforcement Administration and the Research Advisory Panel of the California Department of Justice.

In contrast, a medical study that does not involve marijuana usually requires approval

from just one agency: the university's institutional review board.

"Once you do the study, people are not absolutely eager ... to have medical marijuana research published in their journals," Abrams adds.

### Marinol: Part of the solution

In the 1980s, a pharmaceutical company called Unimed Pharmaceuticals conducted clinical research with the National Cancer Institute on a synthetic form of delta-9-THC, a primary component of marijuana. In 1985, the FDA approved the drug. Solvay Pharmaceuticals, which owns Unimed, holds the patent for Marinol.

On its Web site, the DEA touts Marinol.

"Medical marijuana already exists," the page reads. "It's called Marinol."

But according to Abrams, that's not entirely accurate.

"Marinol is not the plant. Marinol is a synthetic form of the single active (component), delta-9-THC. In marijuana, there are at least 70 other cannabinoids," he says, referring to the substances that are unique to marijuana. "In addition, (there are) about 400 (other components) which probably also have some beneficial effects, and which also sort of balance the effects of the delta-9-THC."

In Marinol, the active medicine is dissolved in sesame oil, which is absorbed at different rates depending on the individual.

"When you smoke, you usually reach or achieve a maximum concentration in the bloodstream within two minutes, which then rapidly declines over 30 minutes," Abrams says. "Marinol takes two hours to reach a peak, and it takes much longer for the concentration to decline."

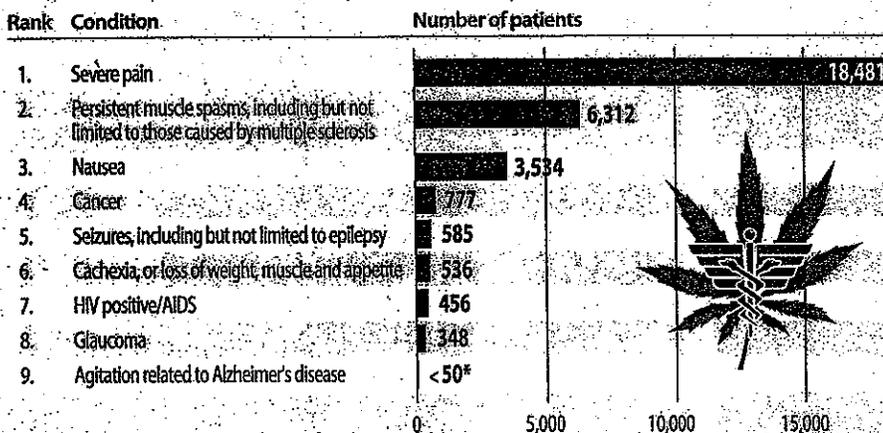
Marinol is recognized by the medical community as treatment for chemotherapy-induced nausea and to control nausea and stimulate appetite for AIDS patients. But the drug is sometimes prescribed for patients with other diseases, too. Once the FDA approves a drug for prescription use, doctors are legally allowed to prescribe it for off-label uses, or conditions other than those it was developed and approved to treat.

Dr. Robert Boone, a cancer specialist at Cancer Care of the Cascades, still remembers the first patient for whom he prescribed Marinol.

The man was a cancer patient who threw up on the way to his second chemo-

## REASONS OREGONIANS REQUEST MARIJUANA CARDS

A patient may have more than one diagnosed qualifying medical condition.



\*Exact number is withheld to protect patient privacy.

Source: Oregon Department of Human Services Medical Marijuana Program

ANDERS RAMBERG

*"If you believe that there are that many sick people who cannot be treated without marijuana, I've got a bridge for sale."*

Mike Dugan, Deschutes County district attorney