



Search
Search
Advanced Search

[home](#) : [news](#) : [news](#)

September 01, 2010

8/24/2010 6:00:00 AM

[Email this article](#) • [Print this article](#)

73°F
CALM
Click for Forecast
weatherforyou.com

HOME

EVENTS

- NEWS**
- Local News
- Journal Denver Bureau
- News Announcements
- State
- High Country News
- Around the West
- Nation
- Pet of the Week
- Public Agenda
- News Documents
- Through The Trees

OPINION

SPORTS

BUSINESS

AGRICULTURE

ARTS &

ENTERTAINMENT

EDUCATION

LIVING

HOME & GARDEN

FAITH

OBITUARIES

FOR THE RECORD



ABOUT US

MULTIMEDIA

YOUR COMMENTS

READER POLL RESULTS

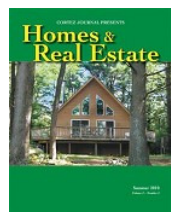
YOUR STORY SUGGESTIONS

Archives

CLASSIFIEDS

Journal Jobs

SUBSCRIBE



BUY LOCAL



Medical value stirs debate

Kimberly Benedict
Journal Staff Writer

While the limited legalization of medical marijuana has won widespread approval from patients' advocacy groups, a cloud of controversy remains over the efficacy of the medicine itself, which many still view as a recreational drug with potentially dangerous side effects.

Doctors and medical groups across the nation stand on both sides of the issue, at the heart of which lies the chemical composition of not only the plant in question, but the human body.

Cannabis, which has been used medically for centuries, contains more than 400 chemicals, 60 of which have been identified as cannabinoids. The most widely recognized of the cannabinoids in marijuana are tetrahydrocannabinol and cannabidiol, more commonly referred to as THC and CBD. Scientists and users have understood for some time that THC and CBD produce very specific reactions in the human body, but only in the past few decades has science gathered enough information to understand why marijuana produces such effects, according to the Society for Neuroscience.

"Basically, cannabinoids in the blood sugar bind to the CB1 receptor on the cells, which causes a cascade of reactions in the cell," said John Kopta, chief science officer at Genovations Creations, a medical marijuana research lab in Colorado Springs. "Depending on the cannabinoids, that reaction can do several different things. Each specific cannabinoid does a different thing to the body."

The key to marijuana use is the presence of the natural form of THC occurring in the body, formally called endocannabinoids. Such chemicals bind to cannabinoid receptors, CB1 and CB2, in the brain and body to illicit a number of responses. In a sense, cannabinoids act as regulators of various bodily function such as mood, hunger, pain and anxiety.

"Endocannabinoids travel in the opposite direction of most brain signals," stated a report from the Society for Neuroscience in December 2007. "In this way, they play a part in regulating almost all brain and body processes, making endocannabinoids prime targets for treating many diseases and conditions."

When cannabinoids enter the body through the use of marijuana, THC and CBD essentially hijack cannabinoid receptors in the body, eliciting an artificial response. Such responses can be manipulated to regulate pain, ease body tremors associated with multiple sclerosis and Parkinson's disease, and prompt hunger.

Joe Leininger, of Mancos, uses medical marijuana to cope with pain resulting from a herniated disk in his neck. Doctors prescribed Leininger a combination of Fentanyl patches, Percocet, muscle relaxants and antidepressants to manage his symptoms, but the pharmaceuticals did not provide the same level of relief as marijuana.

Today, Leininger relies solely on cannabis for pain relief and says his overall health has improved since ceasing use of

Synthetic THC replaces marij

By Kimberly Benedict
Journal Staff Writer

While state and local governments have slowly moved toward the legalization of medical marijuana since Proposition 215 was approved by California voters in 1996, many in the medical community have argued the need for medical marijuana has already been met by approved pharmaceuticals containing the same chemical components as cannabis.

"Medical marijuana already exists," states the Drug Enforcement Administration on its website. "It's called Marinol."

Approved in 1985, Marinol is the trade name for dronabinol, a synthetic form of tetrahydrocannabinol, THC. The original application of Marinol was specifically for nausea and vomiting associated with cancer and chemotherapy in patients who did not respond to conventional treatments. In 1992, the FDA expanded the use of the medication to include anorexia associated with weight loss in patients with AIDS.

"One of the ideas we talk about is efficacy of the medicine," said Lori Raney, a psychiatrist with Axis Health System in Cortez and Durango. "If you want to talk about efficacy, we have THC in a pill that is already available out there and can be prescribed. It is already approved by the (Food and Drug Administration) and has a specific amount of THC."

The development of Marinol was facilitated by the DEA and initiated by the National Cancer Institute after a study regarding the use of THC in relieving nausea and vomiting. The National Academy of Science, Institute of Medicine released a study in 1999 espoused the benefits of pharmacological THC, stating, "the future of cannabinoid drugs lies not in smoked marijuana but in chemically defined drugs that act on the cannabinoid systems that are a natural component of human physiology."

The strict regulation of FDA approved Marinol is the biggest draw for physicians such as Raney.

"There is regulation," Raney said. "You know there is X amount of every single active medicine in those pills. There is just no way of knowing what you are getting in the plant. Marinol is a very fixed amount of THC. It is controlled."

Tight control is one complaint medical marijuana proponents have against Marinol.

"The active ingredient in Marinol is an analogue of one compound, THC," states a 2005 report titled "Marino Versus Natural Cannabis: Pros, Cons and Options for Patients," released by the National Organization for the Reform of Marijuana Laws. "However, several other cannabinoids available in cannabis have also



Brian O'Donnell
running to be your voice in the Colorado State House.

O'Donnell FOR COLORADO
Paid For by O'Donnell for Colorado
Danielle Sandstedt, treasurer

COLORADO.
ENERGY JUST GOT EASIER.
START YOUR ADVENTURE HERE.



traditional pain medication.

"Not being on all the pharmaceuticals makes me feel a lot better healthwise," Leininger said.

Leininger also cites the cost of medical marijuana as a side benefit.

"It was like \$700 a month for pain meds," he said. "For medical marijuana, it's \$50 to \$100. It is drastically cheaper."

While much scientific study validates the benefits of endocannabinoids, the specific use of marijuana for medical purposes is still questioned by many in the medical community.

In April 2006, the Federal Drug Administration issued an interagency advisory clarifying the federal government's position that "smoked marijuana is harmful" and has not been approved "for any condition or disease indication."

In a comprehensive study released in 1999 by the National Academy of Sciences, Institute of Medicine, the institute determined that "Although marijuana smoke delivers THC and other cannabinoids to the body, it also delivers harmful substances, including most of those found in tobacco smoke. In addition, plants contain a variable mixture of biologically active compounds and cannot be expected to provide a precisely defined drug effect."

Clinical trials of marijuana have yet to be completed at the same level of traditional medicine as a result of the plant's identification as a Schedule I drug.

"It is very difficult to do research with medical marijuana to determine how it works and if it works because it is illegal to use and dispense," said Lori Raney, a psychiatrist with Axis Health System in Cortez and Durango. "Those are big issues limiting the ability to see if it works."

Some medical organizations, such as the American Medical Association, have called for the reduction of marijuana from a Schedule I to II drug so well-controlled studies can be completed. So far, the FDA has rebuffed any attempts to declassify marijuana as Schedule I.

While acknowledging the benefits of marijuana use for chronic wasting syndrome, pain associated with HIV infections and the relief of nausea, Raney also cautioned that the negative impacts of marijuana use might counteract any positive effect.

"The problem is, in these conditions people are already so physically compromised," Raney said. "If on top of that you smoke (marijuana), it may actually lead to more physical complications because of the toxins that are in marijuana itself."

A study conducted by the federal Drug Enforcement Administration concluded that most of the hazardous chemicals found in tobacco smoke are also present in the 400-plus chemicals in smoked marijuana. The study stated: "The harmful chemicals and carcinogens that are byproducts of smoking create entirely new health problems. There are four times the level of tar in a marijuana cigarette, for example, than in a tobacco cigarette."

Such facts give Raney pause when it comes to the overall benefits of smoked marijuana.

"As a physician, I have seen so much more harm than good," Raney said. "I cannot be in favor of reducing it to a Schedule II drug to do the studies. There may be others that might think that is the right thing to do, but in my particular field there is nothing that I can see that marijuana would be helpful for. I don't want to see it in clinical studies."

Reach Kimberly Benedict at kimberlyb@cortezjournal.com.

been clinically demonstrated to possess therapeutic utility. Many patients favor natural cannabis to Marinol because it includes these other therapeutically active cannabinoids."

The report also points to a higher degree of psychoactive effects produced by Marinol compared to smoked marijuana.

The cost of Marinol is also indicated as a deterrent to patients seeking medical marijuana. According to ProCon.org, the annual cost of Marinol use is \$8,258 compared to \$6,256 for traditional marijuana.

The National Organization for the Reform of Marijuana Laws report also cites the cost of Marinol, stating, "Doctors report that Marinol's high cost dissuades them from prescribing it to patients."

The report concludes, "Marinol should remain a legal option for patients and physicians and the development of additional cannabis-based pharmaceuticals should be encouraged. However, federal and state laws should be amended to allow for those patients who are unresponsive to synthetic THC, or simply desire an alternative to oral dronabinol."

Other cannabis-based pharmaceuticals are in development in various countries, including Sativex. An oral spray developed by United Kingdom-based GW Pharmaceuticals, Sativex is specifically for multiple sclerosis patients but has also been indicated for pain associated with cancer and for central nervous system pain.

Sativex has been approved in a number of European markets and Canada. The drug is in clinical trials in the United States.

Reach Kimberly Benedict at kimberlyb@cortezjournal.com.

Article Comment Submission Form

Please feel free to submit your comments.

Article comments are not posted immediately to the Web site. Each submission must be approved by the Web site editor, who may edit content for appropriateness. There may be a delay of 24-48 hours for any submission while the web site editor reviews and approves it.

Note: All information on this form is required. Your telephone number is for our use only, and will not be attached to your comment.

Name:

Telephone:

E-mail:

Passcode: This form will not send your comment unless you copy exactly the passcode seen below into the text field. This is an anti-spam device to help reduce the automated email spam coming through this form.



Please copy the passcode exactly
- it is case sensitive.

Message:

Copyright Cortez Journal. All rights reserved. The Cortez Journal Web edition is published Monday through Saturday for readers in Cortez, Montezuma County and beyond. The Cortez Journal is located at 123 N. Roger Smith Ave. Cortez, and can be reached at (970) 565-8527. Software © 1998-2010 [Jupl Software](#). All Rights Reserved