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### The Illegal Herb that Fights Cancer

Posted By Dr. Mercola | May 07 2011

Medical marijuana is now a \$1.7-billion market in the U.S. This means that sales of medical marijuana rival the annual revenue generated by Viagra, a \$1.9-billion business.

What's more, the medical marijuana market is expected to nearly double in the next five years, and that's just in the 15 U.S. states where the drug is legal. If another 20 states pass medical marijuana laws, which projections show is possible, the market could grow to \$8.9 billion by 2016.

According to MSNBC:

"The cannabis industry as a whole -- including the underground black market and medical gray market -- generates anywhere from \$18 billion to \$35.8 billion a year."

In the video above, "Run From the Cure – the Rick Simpson Story," it's suggested that pharmaceutical companies and big business may be withholding a potential cancer cure -- hemp oil -- from the public in the interest of personal profit.

"...perfectly balanced 1:3 ratio of naturally-occurring omega-3 and omega-6 essential fatty acids...unlike other seeds and nutritional oils, such as flax and fish fish oil, hemp seeds also contain super omega-3 stearidonic acid and super omega-6-gamma-linolenic acid in nutritionally relevant amounts that help to reduce inflammation and improve mental functioning, as well as make up for potentially impaired fatty acid metabolism."

They also noted that the reason why industrial hemp cannot be grown in the United States is because the U.S. Drug Enforcement Agency (DEA) refuses to acknowledge that hemp is not the same as marijuana. As TreeHugger reported:

"The United States is the only industrialized nation where growing industrial hemp is illegal. And because of that we're missing out on huge economic opportunity...

Apparently even though Canadian cops can tell the difference between high-THC cannabis plants (marijuana) and low-THC plants (industrial hemp), the US DEA can't be bothered."

#### Sources:

- □ <u>MSNBC March 24, 2011</u>
- □ <u>TreeHugger May 4, 2011</u>

### Dr. Mercola's Comments:

Cannabis, or as it's more commonly known marijuana, has been used for its medicinal properties for thousands of years. It's been heralded as a "cure-all," revered for its healing properties that not only help relieve pain but also have been highlighted as a potential cancer cure.

#### Hemp Vs. Marijuana: What's the Difference?

Before I delve into the intriguing controversy surrounding medical marijuana, it's important to note that the plants referred to as hemp and marijuana are not the same. Both are members of the Cannabis sativa plant species, but they are two distinct varieties.

Marijuana typically is high in THC (delta-9 tetrahydrocannabinol) -- the compound responsible for the plant's notorious psychoactive effect -- and low in CBD (cannabidiol) content. Both THC and CBD are known as cannabinoids, which interact with your body in a unique way I'll describe later.

What's interesting, however, is that CBD has been shown to block the effect of THC in the nervous system. So, marijuana plants are typically high in THC and low in CBD, which maximizes their psychoactive effects.

Hemp, on the other hand, is typically high in CBD and low in THC, as it is bred to maximize its fiber, seeds and oil, the items for which it is most commonly used. For more information on the difference between hemp and marijuana, here is a <u>comprehensive article on the topic</u> from the North American Industrial Hemp Council (NAIHC).

#### Why is it "Illegal" to Grow Hemp in the United States?

Ironically, despite their differences, the U.S. Drug Enforcement Agency (DEA) classifies all C. sativa varieties as "marijuana," according to NAIHC.

This is why the United States is the only industrialized nation where growing industrial hemp is illegal. Well, technically it is not illegal, but growing it requires a permit from the DEA – and it is reportedly almost impossible to get one.

This is a shame for a variety of reasons, including:

- Hemp is healthy: Hemp seeds pack a powerful nutritional punch. Two tablespoons of shelled hemp seeds contain about 11 grams of protein and 2 grams of unsaturated omega-3 fatty acids. And, as <u>TreeHugger reported</u>, hemp seeds have a "perfectly balanced 1:3 ratio of naturally-occurring omega-3 and omega-6 essential fatty acids...unlike other seeds and nutritional oils, such as flax..."
- Hemp is good for the economy: The total retail value of North American hemp products was valued at around \$400 million in 2009, but U.S. farmers are unable

to benefit from this since hemp products are imported.

Perhaps soon hemp will become a U.S. product, however, as Ron Paul has once again submitted an official Congressional Record statement calling for the legalization of industrial hemp. You can find out more about the issues surrounding the legalization of hemp at <u>Vote Hemp</u>, a nonprofit organization dedicated to the acceptance of and free market for industrial hemp.

No matter what you call it, cannabis and its range of varieties, including marijuana, is said to be among the safest medicinal substances known, and there are nearly 25 million Americans who have health conditions that medical marijuana could reportedly treat (and this figure only includes those living in states where its use is currently legal), according to <u>The State of the Medical Marijuana Markets 2011</u> -- yet fewer than 800,000 are taking part.

If marijuana is, in fact, capable of helping heal millions with very few, to no, side effects, why is this not being shouted from the rooftops?

# Political Agendas and Red Tape Make Medical Marijuana a Nightmare

Marijuana was a popular botanical medicine in the 19th and 20th centuries, common in U.S. pharmacies of the time. Yet, in 1970, the herb was declared a Schedule 1 controlled substance, labeling it a drug with a "high potential for abuse" and "no accepted medical use."

Three years later the Drug Enforcement Agency (DEA) was formed to enforce the newly created drug schedules, and the fight against marijuana use began.

The battle that has raged since is a long one, and you can read a <u>brief history of</u> <u>marijuana prohibition in the Huffington Post</u> -- but suffice to say that movements to legalize marijuana have persisted ever since. The most successful to date, and the one that is set to produce the first legal marijuana market in decades, is the medical marijuana movement.

As the State of the Medical Marijuana Markets' executive summary states:

"Since 1996, marijuana proponents have pushed for individual states to recognize marijuana as a treatment for a range of illnesses. New medical research and changing public opinion have propelled these efforts.

Over the past 15 years, led by California, 15 states plus the District of Columbia have adopted laws permitting some form of marijuana consumption or distribution for medical use. These laws have been adopted by public referendums as well as legislation."

Despite its legal status, it was common for the DEA to raid medical marijuana suppliers and even arrest patients, up until 2009 when the U.S. Justice Department essentially told federal prosecutors to lay off Americans producing and using medical marijuana in accordance with state laws. Now in 2011, the report notes that a national market for medical marijuana is worth \$1.7 billion -- and could grow to nearly \$9 billion in the next five years. Investors are sitting on the sidelines, just waiting for the regulatory smoke to clear.

Many patients, too, are eager to get their hands on what some are calling the "cancer answer."

# Are You Being Kept in the Dark About a Potential Cancer Cure?

If you ask Canadian Rick Simpson, absolutely.

Simpson is the man in the video above who was openly growing hemp in his backyard and using it to produce hemp oil, which he gave, for free, to his friends and family. The oil, Simpson and many others claim, has a remarkable healing effect on countless diseases and conditions, including cancer.

After numerous raids by the Royal Canadian Mounted Police, Simpson was forced to seek asylum in another country, but his Web site, <u>Phoenix Tears</u>, still stands. There you can find <u>instructions on how to produce hemp oil</u>, as well as <u>testimonials</u> from people who say the oil has helped them. <u>Mail Online</u> also featured a story of 2-year-old Cash Hyde who was diagnosed with a serious brain tumor. His father secretly administered cannabis oil through his son's feeding tube while he was in the hospital in failing health and the boy experienced a complete turnaround. He has now been declared cancer free.

As Simpson states:

"I have been providing people with instructions on how to make Hemp Oil medicines for about 8 years. The results have been nothing short of amazing. Throughout man's history hemp has always been known as the most medicinal plant in the world. Even with this knowledge hemp has always been used as a political and religious football.

The current restrictions against hemp were put in place and maintained, not because hemp is evil or harmful, but for big money to make more big money, while we suffer and die needlessly.

Look at a proposal such as this; if we were allowed to grow hemp in our back yards and cure our own illnesses, what do you think the reaction of the pharmaceutical industry would be to such a plan?

Many large pharmaceutical companies that still exist today sold hemp based medicines in the 1800's and early 1900's. They knew then what I have recently found out. Hemp oil if produced properly is a cure-all that the pharmaceutical industry can't patent."

#### National Cancer Institute Changes Web Site about Cannabis' "Anti-Tumor Effect"

In March 2011, the National Cancer Institute (NCI) updated its Web site to include some of the <u>benefits of medical marijuana</u>, reportedly noting:

"The potential benefits of medicinal Cannabis for people living with cancer include antiemetic effects, appetite stimulation, pain relief, and improved sleep. In the practice of integrative oncology, the health care provider may recommend medicinal Cannabis not only for symptom management but **also for its possible direct antitumor effect.**"

Being the first federal agency to publicly claim that marijuana may in fact be beneficial -- and possess anti-tumor properties -- it generated significant buzz on the Web. But soon after, NCI quickly changed its tune, editing the anti-tumor reference entirely out of its statement, which now reads:

"The potential benefits of medicinal Cannabis for people living with cancer include antiemetic effects, appetite stimulation, pain relief, and improved sleep. Though no relevant surveys of practice patterns exist, it appears that physicians caring for cancer patients who prescribe medicinal Cannabis predominantly do so for symptom management."

NCI then tried to account for its changes by posting this explanation on March 30:

"In light of the attention garnered by the PDQ summary statement on Cannabis and cannabinoids, reviewers for the summary on the PDQ Complementary and Alternative Medicine (CAM) Editorial Board reexamined the recently posted statement and decided to change the wording, in order to clarify the meaning that the Board originally intended to convey and to correct several possible misinterpretations."

It's a suspicious swap of wording, to say the least, but even more perplexing is why, if anti-tumor effects have been discovered from cannabis -- <u>and they have</u> -- why is this substance not the subject of major research studies?

# Why are Medical Marijuana and Hemp Oil NOT Being Studied?

Even a <u>quick review of the data</u> suggests that cannabis deserves more than a passing glance as a potential treatment for various diseases. But in the United States, these studies are not being done.

According to a report by Americans for Safe Access:

"In the past three decades, there has been an explosion of international studies designed to investigate the therapeutic value of cannabis (marijuana).

However, drastic restrictions on research in the U.S. have meant that few clinical trials are being conducted domestically and none are being conducted as part of a sponsor-funded drug development plan aimed at

obtaining Food & Drug Administration (FDA) approval for the prescription use of the botanical plant itself.

Meanwhile, research teams in Great Britain, Spain, Italy, Israel, and elsewhere have confirmed - through case studies, basic research, preclinical, and preliminary clinical investigations - the medical value of cannabis ... "

It is easy to see why drug companies would want no part in funding research studies on a plant that can't be patented. If they *were* to discover that it could cure cancer, patients would be able to grow it themselves right in their own backyard ... this is not something the pharmaceutical companies would want you to know about.

Simpson, who keep in mind has been giving away hemp oil for *free*, is so convinced of its usefulness that he <u>states on his Web site</u>:

"When the hemp plant is grown for medicinal use, you now have your own medical system that is much safer and effective than anything our current medical system provides. You still may require a doctor to set your broken leg, but you will no longer need the chemicals they have been pushing upon us. Hemp is medicine for the masses and no one has the right to control its use."

Of course, in the United States its use is controlled and even those who have a legitimate medical need can have a hard time getting a steady supply. This may change if more research continues to bear out marijuana's healing properties, but for now even the ability to research the substance is tightly controlled. As the <u>Safe Access report</u> states:

"... the federal monopoly on the supply of cannabis has fundamentally limited FDA-approved clinical research to investigate its safety and efficacy in controlling symptoms of serious and chronic illnesses.

In the United States, research is stalled, and in some cases blocked, by a complicated federal approval process, restricted access to research-grade cannabis, and the refusal of the Drug Enforcement Administration (DEA) to license private production of cannabis for use exclusively in federally approved research."

This certainly does make the fervent war to keep marijuana out of the hands of Americans take on new meaning ...

#### How Cannabis Works: Cannabinoids and the Cannabinoid Receptor System

There are more than 60 chemical compounds known as cannabinoids in the marijuana plant. A report by Dr. Manuel Guzman suggests that these active components of cannabis and their derivatives are potential anti-cancer agents. He wrote in the journal <u>Nature Reviews</u>:

"... these compounds [cannabinoids] have been shown to inhibit the growth

of tumour cells in culture and animal models by modulating key cellsignaling pathways. Cannabinoids are usually well tolerated, and do not produce the generalized toxic effects of conventional chemotherapies."

Cannabinoids interact with your body by way of naturally occurring cannabinoid receptors embedded in cell membranes throughout your body. There are cannabinoid receptors in your brain, lungs, liver, kidneys, immune system and more; the therapeutic (and psychoactive) properties of marijuana occur when a cannabinoid (such as the THC produced by the cannabis plant) activates a cannabinoid receptor.

Your body also has naturally occurring endocannabinoids similar to THC that stimulate your cannabinoid receptors and produce a variety of important physiologic processes.

So your body is actually hard-wired to respond to cannabinoids through this unique cannabinoid receptor system; research is ongoing on just how far its impact on your health reaches, but to date it's known that cannabinoid receptors <u>play an important role</u> in <u>many body processes</u>, including metabolic regulation, cravings, pain, anxiety, bone growth, and immune function.

A report by the American College of Physicians (ACP) further notes that:

"Marijuana has been smoked for its medicinal properties for centuries. It was in the U.S. Pharmacopoeia until 1942 when it was removed because federal legislation made the drug illegal ... Still, the overwhelming number of anecdotal reports on the therapeutic properties of marijuana sparks interest from scientists, health care providers, and patients.

Over the past 20 years, researchers have discovered cannabinoid receptors: CB1, which mediates the central nervous system (CNS), and CB2, which occurs outside the CNS and is believed to have anti-inflammatory and immunosuppressive activity.

These scientific developments have revealed much information supporting expansion of research into the potential therapeutic properties of marijuana and its cannabinoids."

ACP states that research to date suggests these substances may be useful for:

- Appetite stimulation
- Glaucoma
- Neurological and movement disorders
- Pain relief

#### What Does the Research Say About Medical Marijuana?

The studies that have been conducted so far show some promise for the use of cannabis in the treatment of a wide range of health conditions, including potentially cancer. For instance, in 2009 a study in the journal <u>Cancer Prevention Research</u> found that marijuana smokers have a *lower* risk of head and neck cancers than non-marijuana smokers.

Harvard researchers also found that <u>THC in marijuana cuts tumor growth</u> in lung cancer while significantly reducing its ability to spread.

There is also a wealth of research linking marijuana with pain relief and improved sleep. In one recent study, just three puffs of marijuana a day for five days helped those with chronic nerve pain to relieve pain and sleep better.

Americans for Safe Access also has <u>links to research studies</u> suggesting that cannabis may help in the treatment or prevention of Alzheimer's disease and cancer, while the <u>International Association for Cannabis as Medicine</u> highlights the following medical uses:

Nausea	Vomiting	Anorexia	Cachexia (Wasting Syndrome)
Spasticity	Movement Disorders	Pain	Glaucoma
Epilepsy	Asthma	Dependency and Withdrawal	Psychiatric Symptoms
Autoimmune Diseases	Inflammation	High Blood Pressure	Chronic Fatigue Syndrome

For more on the latest research, you can also see this <u>database of clinical studies and</u> <u>case reports</u>, which is maintained by the International Association for Cannabis. And, for those who are interested, here is an even more <u>extensive list of marijuana clinical</u> <u>studies</u>, <u>categorized by disease/ailment</u>.

#### Marijuana is NOT Harmless ...

There are certainly some downsides to marijuana use that need to be addressed, particularly if you are thinking of smoking it for recreational purposes.

Marijuana use can be addicting, and no doubt families have been broken up and jobs lost over its use. In the short-term, marijuana use can cause trouble with your ability to think clearly and may impair short-term memory. Marijuana also leads to motor skill impairment and affects alertness, coordination and reaction time, which is why it should never be used prior to driving.

There is also some evidence that marijuana use can <u>exacerbate psychotic symptoms</u> in those with schizophrenia or other psychotic disorders.

It's also been suggested that marijuana use can serve as a "gateway" drug that eventually leads to the use of "harder" drugs like cocaine and heroine, although this <u>has been</u> <u>debated</u>. Marijuana use among children and teens can also have dire consequences, as drug use of any kind may encourage risky choices and irresponsible behaviors.

### **Practical Considerations on Using Marijuana**

While the vast majority of marijuana use is through burning and inhalation, it is worth

noting that anytime you heat materials and inhale them you run the risk of introducing toxic elements into your system. This is very similar to using tobacco. Like tobacco it is best to only use organic versions. Any pesticides that are on the material that is burned and inhaled will dramatically increase its toxicity.

Smoking marijuana will also produce carbon monoxide and tar as byproducts of combustion. Additionally, smoking marijuana from a bong (or waterpipe) has been linked to the spread of tuberculosis.

It is possible to avoid these risks entirely by either securing cannabis in hemp oil form or, as many medical marijuana patients do, using a vaporizer. The device vaporizes marijuana without any of the combustion byproducts, allowing for a clean route of ingestion.

It is certainly ironic that a natural substance like marijuana is illegal while prescription drugs that are prescribed by doctors every day <u>kill over 100,000 Americans a year</u> and get the government's gold seal of approval. But you never could grow a drug like Lipitor, Avandia, or Ritalin in your backyard the way you could marijuana ... and perhaps therein lies the problem.

If one chooses to use marijuana, from a health perspective it would seem the safest way to use it would be to eat it (along with some fat, as THC is fat-soluble and will not dissolve in water). It is important to understand though that for nearly everyone in most countries, primarily for political reasons, using marijuana is an illegal activity that could result in serious legal consequences.

If you are looking for a natural form of pain relief that is not currently illegal, you can find natural alternatives by searching this site and also <u>reading my comment on this past</u> <u>article</u>.

#### **Related Links:**

- □ <u>Recreational Drugs FAR Less Likely to Kill You than Prescribed Drugs!</u>
- □ <u>Soy's New Competition: Hemp</u>
- $\square$  Pot For MS?