The Benefits of Medical Marijuana

By Adam Kohn
Facts about Marijuana

- Nearly 70 million people admit to having tried Marijuana
- Marijuana is not a gateway drug
- Intake of nearly 1500 pounds to O.D.
What is THC?

- Delta-9-tetra-hydrocannabinol
- Most abundant of more than 60 chemicals in the cannabis plant
- Binds to nerves in brain and alters nerve behaviors
- Hippocampus, Cerebral Cortex, Basal Gaglion
- Neurotransmitter dopamine increases in nucleus accumbens
- Gives sense of pleasure
Quick Definitions

- **Marijuana**
  - Unpurified cannabis plant substances
  - Various components
  - Not all effects due to THC

- **Cannabinoids**
  - Compounds related to THC
  - Found in plant, animals or synthesized in chemistry laboratory
Medical Marijuana helpful for...

- Cancer Pain
- Migraine Headaches
- Chemotherapy and Vomiting
- Wasting Syndrome + Appetite Stimulation
- Multiple Sclerosis
- Glaucoma
Cancer Pain

- Cancer Pain can be due to inflammation, mechanical invasion of bone, or other pain sensitive structures
- Study showed 5-20mg doses of THC produced analgesia in patients with cancer pain
- No reports of nausea or vomiting
- Over half reported increase of appetite
- Problem--- study not comparing THC to other drugs
THC Vs. Codeine

- 10mg THC = 60 mg of Codeine
- 20mg THC = 120mg of Codeine
- Side effects similar
- THC ==> improved mood and sense of well being
Migraine Headaches

- Sumatriptan (Imitrex)—currently the best available medicine for migraines
- Fail to completely abolish symptoms about 30% of the time
- Marijuana proposed numerous times as treatment but almost no clinical data yet
Chemotherapy- Nausea and Vomiting

- Nausea experience usually worst side effect of chemotherapy
- THC compared to Placebo=>THC found to posses antiemetic properties
- THC compared to antiemetic drug, Metodopramide=>THC reduces chemotherapy induced emesis
Chemotherapy- Nausea and Vomiting (continued..)

- Study on 56 patients unresponsive to conventional antiemetic agents
- 78% said marijuana was "moderately" or "highly effective"
- 1998-- more effective agents available
- Cannabinoids can be useful for people who don’t respond well to current antiemetic drugs
Wasting Syndrome and Appetite Stimulation

- Definition of Wasting Syndrome
- In AIDS patients, weight loss of as little as 5% is associated with decreased survival
- 1997- over 30 million people infected with HIV
Studies and Concerns

- Controlled clinical study on AIDS patients showed increased appetite and stable weight.
- Controlled laboratory study on healthy adults showed increased body weight, appetite, and food intake.
- Megestrol acetate, appetite stimulator, more effective, but...
- Smoking it compared to ingesting it could weaken the immune system.
Multiple Sclerosis

- Unfortunately, not a lot of data
- Many anecdotal reports of marijuana relieving the spastically associated with spinal cord injury or multiple sclerosis
Marijuana and THC has been shown to reduce Intraocular Pressure (IOP) by 24%.
As good as other medications available.
Works if smoked, eaten, pill form but not topically (eye drops).
Lowers blood pressure.
Scientists not sure what interaction with other treatment drugs would do.
Conclusions

- Marijuana helps with pain relief, appetite stimulation, nausea, and glaucoma
- “Marijuana’s potential as medicine is seriously undermined by the fact that people smoke it. Thereby increasing their chance of cancer, lung damage, and problems with birth weight.” --John A Benson, JR, MD.
Institute of Medicine’s Recommendations

- Continue Research for
  - physiological effects
  - safe delivery systems
• “As long as a therapy is safe and has not been proved ineffective, seriously ill patients should have access to whatever they need to fight for their lives.”