If you were to attend a recent local cannabis educational fair, you’d be surprised by the absence of “pot heads;” instead, you’d find many seniors looking for alternative ways to address pain and other medical conditions. Alas, while there are some excellent books on the subject, it can still be difficult to find information from a medical professional on the subject for various reasons. Many simply are not knowledgeable about the subject and hence are unable to provide guidance to their patients. Others fear legal ramifications of recommending a product that, although “legal” in California, remains illegal on a Federal level.

This is intended to be an introductory guide for patients interested in the use of cannabis & related products for medicinal purposes and is NOT a guide to getting high. Nor should this be misconstrued as medical advice. It is simply for patient education as my feeling is that patients should receive medical information from a physician or other trained medical professional, rather than a 21 year old “Budmeister” at the local dispensary.

Cannabis is the scientific name for the plant commonly known as marijuana. It originated in central Asia, but is now found worldwide, and has been employed for medicinal benefits for thousands of years. There has been debate regarding the species and subspecies of the plant, but nowadays most will make the distinction between two: Cannabis sativa and Cannabis indica. Historically, one could discern between the two types by the shape of the leaf, but with the advent of hybrid types, this can be difficult. However, in general, Indica plants tend to be somewhat short, bushy with wider leaves whereas sativa plants tend to grow tall with leaves that are more narrow.

Cannabis has also been widely referred to as hemp and it has been bred over the years to yield high fiber content for industrial uses such as the manufacture of clothing, rope, etc. What is commonly sold as “hemp” in stores has been bred to have very low THC content, the main psychoactive constituent that induces the “high.” Hemp has gained new life with the popularization of CBD oils. In 1971, an arbitrary line was drawn that limited hemp to a 0.3% THC ceiling and this has remained the standard since. One cannot get “high” from this form of hemp, but it’s possible that one might see other benefits.

THC? CBD? What does this mean?

Cannabis contains well over 400 different chemicals, of which at least 60 are cannabinoid compounds. That means that they effect changes in our bodies through, conveniently named, cannabinoid receptors. Think of this as a lock and key theory; a cannabinoid chemical (such as delta-9-tetrahydrocannabinol, most commonly referred to as plain old THC) will attach itself to a receptor that is shaped specifically for it to fit in the brain (or elsewhere in the body) where its elicits a particular effect, such as euphoria. If the chemical doesn’t fit the receptor, it will not produce an effect.

Let’s look at THC for a moment; Were one to consume a salad made up of potent cannabis plants, they would not get high. The reason for this is that THC does not exist in a usable form in the plant – it’s bound to an acid group and is called THC- A. Exposure to heat, however, induces the acid group to fall off (called decarboxylation) rendering the THC psychoactive. So, the THC compound in cannabis must be heated at some point in order to exert certain effects in the body. *[Note that smoking a “joint” or using a “bong”/waterpipe is not the most efficient process; it’s estimated that lighting a joint (marijuana cigarette) only converts about 30% of the THC-A to THC. Hence, what some producers do in order to boost the %THC concentration in their cannabis is to “decarboxylate” (i.e. subject to low heat for a period of time) their products after it’s harvested. This is often done for “edible” products.]*

Cannabinoid receptors are located throughout the body and are part of the endocannabinoid system. The effects for which they are most widely known involve pain control, appetite, mood and memory. There are subtypes: CB1 (found mainly in the brain) and CB2 (found in the immune system, in nerve endings, and elsewhere). Other receptors are suspected, but as of yet have not been identified. With the current surge in popularity of Cannabis products and the demand for information, research has stepped up so we will hopefully know more in the near future.

Contrary to beliefs, the benefits of cannabis are not all attributed to the THC, nor the CBD, content of a particular product. There are is another large group of chemicals referred to as terpenes which are volatile hydrocarbons that contribute to the odor and taste of the plants, for example. While not inherently psychoactive themselves, they can mediate the effects of the chemicals that are whereby affecting how a user perceives their highs.

It should be noted that cannabis is most effective when the combination of all of these are ingested, rather than just a single chemical. This is referred to as an entourage effect. Marinol (dronabinol) is a synthetic-derived THC pill that was developed for cancer and AIDS-related nausea and vomiting. However, it doesn’t not work nearly as well as using a product that also contains CBD’s and terpenes with it.

The two species of cannabis, sativa and indica, have different effect profiles. Per Weedmaps.com: sativas have been considered “cerebral,” “heady,”, “uplifting”, “energizing,” whereas indicas have been described as “relaxing,” “sedating,” “full-bodied,” “couchlock,” or “stoney”. So, if one needs to remain fairly alert and energetic, a sativa strain seem to be appropriate. Can’t sleep? An indica might be helpful (slang for indica is “in da couch!”). Here’s where it really gets confusing because hybrids employing elements of both are now very prominent and have different terpene profiles, hence you’re more apt to see products advertised as having sativa-like or indica-like effects.

After consideration of what strain(s) to try, the next question is one of dosing and how to administer each dose. If someone is not a regular user of cannabis (or has never tried it), the mantra is “start low and go slow.” One can always take an additional dose if the desired effect is not achieved, but one cannot go backwards if they’ve taken too much (and they will NOT be happy campers).

 For “newbies” i.e. cannabis virgins, one should never exceed a 5 mg THC dose. Five mg of THC will rarely get anybody high, but it can provide some pain relief and relaxation. It’s hard to quantify a dose if smoking, but it’s relatively easy to do with “edible” products. With the latter, it’s easy for the manufacturer to analyze the concentration of the different compounds in their products and determine how many mg of THC would be in a specific weight of product e.g. a gram.

Inhalation, on the other hand has more variables; some people inhale stronger and larger amounts, some can hold their breath longer, etc. These can affect the absorption of THC into the body. By the way, THC via inhalation reaches the brain in about 7 seconds (just like tobacco cigarettes), so one should be aware of how it affects them literally within a few minutes. If a patient feels as though they have not achieved the desired effect, they can then take another “hit” and re-evaluate a few minutes later, repeating this as needed.

Edibles, however, do take longer to achieve their desired effects because they must be absorbed by the gastrointestinal system and processed through the liver. Hence, one must wait 1-2 hours in order to fully evaluate the results. The good news is that the effects of edibles often last longer.

“Edibles” may be sold in many forms: “gummies,” cookies, brownies, etc. For patients with chronic disorders ranging from anxiety to pain, low dose edibles (e.g. containing 3-5 mg THC) taken once or twice a day can do the trick for them. Patients with sleep issues might take a little bit stronger dose about 2 hours prior to anticipated bedtime. Tolerance can develop for some, requiring increase in their doses, but many do fine on low doses. [Legitimate cannabis dispensaries sell products that are labeled with their THC content so that patients can figure out the proper amount to consume for their particular conditions.]

So, is there anybody who should NOT use medicinal cannabis? Well, first and most obvious, if someone does not feel comfortable with it or has a sensitivity/allergy to it. *[That being said, I have seniors in my practice who were reluctant to try it, but their kids (or grandkids) convinced them to try it and they became enthusiastic about it.]* Children with a rare seizure disorder can find benefit, but – speaking of recreational use, now - I’d never encourage anyone under the age of 25 to get “high” regularly because it can affect the development of their brains.

Also, many kids (as well as some adults) figure that “if a little is good, then more is a lot better.” It IS possible to ingest too much cannabis and develop conditions such as hyperemesis (a vomiting condition). Growing males who ingest chronically can develop gynecomastia (excessive breast tissue). Be aware, also, that patients with schizophrenia can have psychotic reactions. This list is not intended to be inclusive but be aware that patients who use low dose cannabis for legitimate medicinal purposes rarely run into significant problems, unlike their recreational counterparts who are dosing at much higher levels. Finally, cannabis can interact

with opiates and benzodiazepines, leading to overdose, so care must be taken to examine the dosages being employed for each.

If you have further questions about whether or not you may benefit from medicinal cannabis, please discuss with your personal physician, perhaps checking first to see if they feel comfortable or are knowledgeable on the subject.

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