GREEN IBUPROFEN

For years people have been searching for the perfect pain reliever, anti-inflammatory, analgesic, whatever you want to call it; and while many others claim to be against seeking a solution, and instead, allowing the body to heal itself on its own, the truth is that their are far better, faster ways to cure an every day problem. You don't have to be an athlete to have an injury. You don't need to be an expecting mother to have morning sickness. You don't need to be an over-thinker to have a headache. It happens to anyone who chooses to live. As simple as that.

Let's get down to the basics. When a pain or condition manifests itself the first solution that comes to mind is the pharmaceutical path. Going to the closest pharmacy and wondering which one of their 200 products, all serving the same purpose, will be more efficient in curing you this time. Tylenol, Ibuprofen, Migralgine, Panadol, Codine, Cataflam, Arcoxia, and the list goes on and on. While many people, and I am pointing my finger at closed-minded parents mostly, will administrate themselves or someone else one of these medicines without even consulting a doctor, the

dangers that lie in each of those little capsules is far greater than that fever or that hangover that you had.

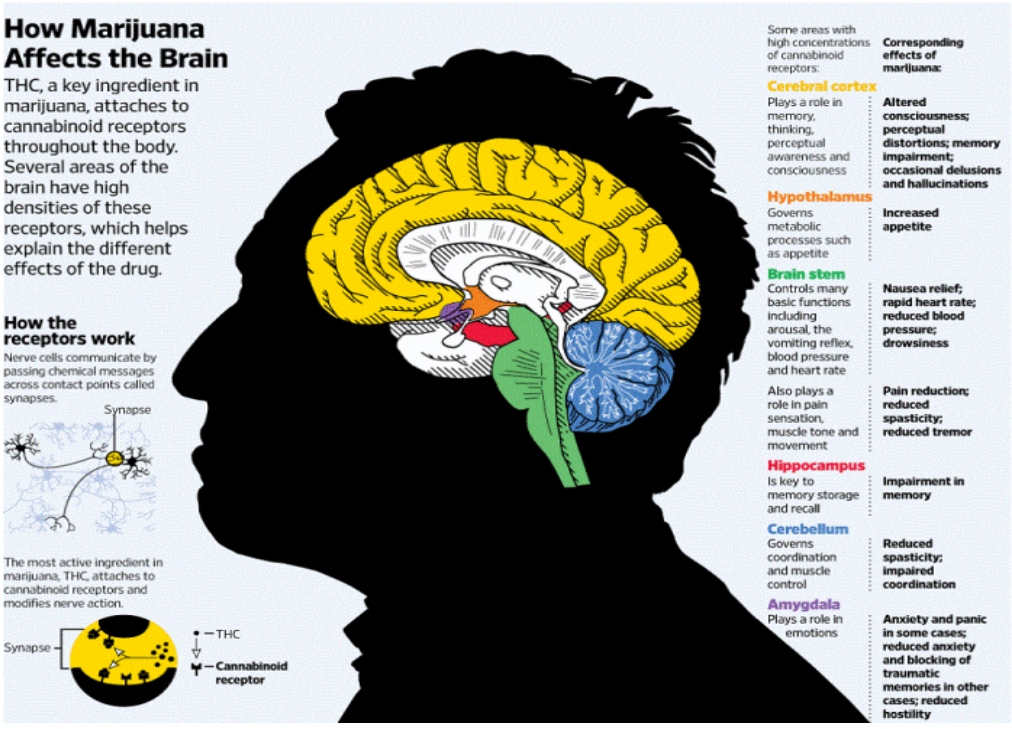
You see, problems arise when individuals start popping up in different places around the world claiming that these non-steroidal anti-inflammatory drugs (NSAIDs) solved their small pain several times but in the long run their systems grew too strong for those drugs to continue working as instructed, so doses were incremented. And that is when the damage happened. While it's not common, NSAIDs can hurt the liver, the intestine and worst of all, the kidneys. Data confirming such dangers has been analysed and interpreted by governments, by activists, by doctors and by many average men and women. Only a few have chosen to search for better alternatives to combat those everyday conditions that plague people's days with the smallest hint of a migraine or the slightest pinch in a muscle.

Yet it is those few that have discovered a secret long held by civilisations such as the Greeks, the Egyptians, the Persians and the Hindi. Ironically, the biggest portion of our knowledge comes from the discoveries of those four civilisations, so it may seem fit to pay attention to this last treasure: cannabis.

Cannabis sativa has a long history as a herbal remedy for various maladies dating back to the 2737 BC. The last two centuries have been victim of the ignorance of few and the greed of others, but is now surging back as the potential miracle cure for everything from glaucoma to brain cancer. We could write a book about the uses that his plant has, but we are focusing on pain relief. “Cannabis’ effectiveness as an analgesic has been studied. University of Oxford doctors found that the brain on THC showed reduced response to pain, suggesting the drug may help patients endure pain. Brain scans showed reduced activity in two centers of the brain where pain is registered, the mid-Anterior cingulate cortex and the right Amygdala. Cannabis did not block the sensation of pain like Morphine-based pain killers. The researchers found great variation among individual reports of pain

relief. According to Stuart Silverman, M.D., a rheumatologist at Cedars-Sinai Medical Center, “Historically and anecdotally, marijuana has been used as a painkiller”. A Canadian study showed cannabis can reduce “nerve pain” from surgical complications or injuries. The 21 subjects suffered from chronic pain. Patients smoking cannabis with a 9.4% THC content reported less pain than patients smoking placebo. Better sleep and less anxiety were additional reported benefits. Igor Grant, psychiatrist and director of the Center for Medicinal Cannabis Research at the University of California San Diego said “There is good evidence now that cannabinoids may be either an adjunct or a first-line treatment”. He said not everyone experienced pain relief, but the percentage who did was comparable to those who said they experienced relief from and other medications commonly prescribed for neuropathic pain (the subject of his study), like antidepressants. A small-scale UCSF study found patients with chronic pain may experience greater relief if cannabinoids were added to an opiates-only treatment. The findings further suggested that a combined therapy could result in reduced opiate dosages” (wiki).

Japanese scientists have discovered that cannabinoids can cause some white blood cells to lose their ability to migrate to the sites of infection and inflammation. These findings, which appear in the May 5 issue of the *Journal of Biological Chemistry*, could have potential use in the development of novel anti-inflammatory drugs. Another study published in *Current Neuropharmacology* displays a similar study carried out by neural transmission experts who confirmed the power of cannabinoids when pain is the condition to neutralise.



The cannabinoids are a group of chemicals that include marijuana. These compounds bind to and activate the body's cannabinoid receptors. There are two types of

cannabinoid receptor: the peripheral cannabinoid receptor (CB2) which is predominantly found in immune cells, and the central cannabinoid receptor (CB1) which occurs in the central nervous system. Recent studies have suggested that CB2 may be involved in a wide range of physiologic phenomena related to immunity, although research on this function is still at an early stage. Among the possible immunological roles for CB2 is an involvement in the initiation of white blood cell migration to sites of infection and inflammation. In the Journal of Biological Chemistry study, which was featured as a “Paper of the Week”, Yumi Tohyama and colleagues used an in vitro model of blood cell migration to study the involvement of CB2 in the recruitment white blood cells. They found that treating the blood cells with compounds that bind to CB2 suppresses the migration of the cells. When they examined the cells, they discovered that they had lost their ability to develop a front/rear polarity, which is something they need to effectively migrate to sites of infection and inflammation. Because cannabinoids seem to suppress activated white blood cells, Tohyama believes they could have a potential use in the treatment of inflammatory conditions and diseases.

But it can be quite difficult to test the differences between such a herbal remedy and an over-the-counter NSAIDs. I figured out a journal based observation system that yielded a more than decent picture of the pros/cons of both cures. The observations were as follows:

Headaches: Originated by several conditions ranging from excessive computer usage, eye debilitation (misuses of glasses), hangovers and others. NSAIDs used included Tylenol and Advil. Marijuana used was a cannabis sativa (strain: haze). Administration varied from instantaneous to prolonged to test the response of the body to both methods of cure. While the NSAIDs were efficient when treating a persistent migraine the anti-inflammatory properties of cannabis were able to surpress pain, discomfort and many conditions directly connected, such as nausea, fever or lack of apetite.

Muscle/ligament/joint pain: Originated by impacts or incorrect movements when carrying out an action or performing a sport. Treatments included Cataflam and Arcoxia. Marijuana used was cannabis sativa (strain: haze). After treating injuries with hot and cold in order to reduce visual inflammation, both methods were administered through different scenarios. Never at the

same time. While inflammation was reduced with pharmaceuticals when it was severe or in a delicate area, such as the neck, the pain relief effects were completely outbalanced with herbal treatments. Effects could be noticed 45-90 minutes after administration with the advantage that such method also produces a calming agent in the individual which directly protects the injury from continuous movement.

While the world corrodes its body with the next product to come out of Merck's or Bayer's workshop, the wise will cure themselves with cleaner, cheaper and more enjoyable methods that in the end, will only yield a longer lifespan.