

HEALTH

Cannabis can help heal broken bones, study finds

By **Conor Gaffey** 7/17/15 at 6:52 PM

Cannabis could be used in medicinal form to speed up the healing of broken bones, according to a new study.

Researchers found that the non-psychoactive element in cannabis - the element that does not lead to the user experiencing a high - known as cannabidiol (CBD), significantly sped up the healing process for fractured leg bones in rats after eight weeks.

Additionally, the same researchers previously found that receptors in human bodies which are sensitive to cannabis boost bone formation and limit bone loss, meaning that medicinal doses of cannabis could be used to treat osteoporosis and other degenerative bone diseases.

Dr Yankel Gabet of Tel Aviv University, who led the study, said: "The clinical potential of cannabinoid-related compounds is simply undeniable at this point."

The study, published in the **Journal of Bone and Mineral Research**, tested two sets of rats. One was injected with CBD and the other was treated with a combination of CBD and tetrahydrocannabinol (THC), the psychoactive element in cannabis.

The researchers found that CBD alone was enough to enhance the healing process of fractured bones and that THC was not necessary to produce the effects. CBD is primarily an anti-inflammatory compound and has no psychoactive effects, leading the researchers to say that cannabis-based therapies can be developed without the negative side effects of the drug.

In their previous research, Gabet and the late professor Itai Bab of Hebrew University, who co-authored the study, found that the human skeleton is regulated by cannabinoid compounds.

Specifically, the CBD compound strengthens fractured bones during the healing process by promoting the maturation of collagen, which forms a key structural component in bones as

well as tendons and ligaments.

"After being treated with CBD, the healed bone will be harder to break in the future," said Gabet.

Cannabis reportedly has a number of health benefits. A **2014 study** found that THC reduced tumour growth in an aggressive strain of brain cancer within mice with virtually no psychotropic side-effects.

Last year, the NHS in England **ruled out** introducing Sativex, a drug derived from cannabis for the treatment of multiple sclerosis, despite the Multiple Sclerosis Society finding in a survey that 82% of MS sufferers taking Sativex considered it essential or high priority.

Cannabis is largely illegal across Europe and can result in users experiencing hallucinations and delusions, while long-term use can have a depressant effect. Some countries do allow for its use in medicinal purposes. In the UK, cannabis is a Class B drug, meaning that the maximum penalty for possession is five years in prison and an unlimited fine.

Last January, the French ministry of health approved the use of Sativex for medicinal purposes. The drug can also be purchased in the UK, Germany and Italy, among other European countries.

Cannabis comes under Schedule 1 in US drug law, along with heroin and ecstasy, meaning it is considered among the most dangerous drugs and considered to have no medicinal benefits.