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## **Phytoconstituents of *Cannabis sativa* seeds and their uses in dealing different healthcare problems; A Review**

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### **Introduction**

*Cannabis* belongs to the genus of flowering plants in the family Cannabaceae. The main three species are recognized: *Cannabis sativa*, *Cannabis indica*, and *Cannabis ruderalis*. [1][2][3][4]. The cannabis plant called as hemp in many places whereas this term is used for cultivating various varieties of Cannabis for non-drug use. *Cannabis sativa* is reported to be used for hemp fiber and oils. It is used for various medicinal purposes and as a recreational drug. Various beneficial products are prepared at industrial level from cannabis plant. This plant is generally used to get abundance of fiber. The UN Narcotics Convention has led in breeding of cannabis to produce species which is secreting lowest percentage of tetrahydrocannabinol (THC) which is a known psychoactive constituent. There are various plants which have been bred selectively to produce a maximum of THC (cannabinoids). This process can be achieved by curing of flowers. There are various compounds extracted namely hashish and hash oil from cannabis [5].

### ***Cannabis* seed**

*Cannabis sativa* L. is an annual herb belongs to the family of *cannabaceae*. Cannabis is mostly inhaled drug after tobacco. Different parts of cannabis include rhizomes, tubers, leaves, seeds, flowers, bulbs and roots. Seeds of cannabis are used by humans for their food, medicine, fuel, timber, fibre and many other purposes [6]. *Cannabis sativa* seeds are used in

the form of grain and also used for different cooking recipes. The cannabis seed contain 27.1% protein, 25.6% of fat and 7.4% of carbohydrate.

*Cannabis* seed are known for its antioxidant effect. The study of antioxidant effect the cannabis sativa L. seed and 3 to 5 days of germination was evaluated. On the dry basis of seed will expressed flavonoids, flavonols and polyphenols content. *Cannabis* seed have a good antioxidant activity, but their germination have a very high antioxidant properties. currently cannabis seeds product are important to human nutrition included oil, meal, powder, flour and protein. These all cannabis products are admired in human nutrition as a good source of nutrients. It contains all essential fatty acids and amino acids in sufficient amount. cannabis seed contain 80% of polyunsaturated fatty acids included ( $\omega$ -6) linoleic and  $\alpha$ -linolenic ( $\omega$ -3) acids. it also contain more than 30% of oil.  $\alpha$ -linolenic ( $\omega$ -3) acid including anti-cancer and anti inflammatory properties. cannabis seed is beneficial to itself on platelet aggregation, and heart diseases of cardiovascular health [7].

### ***Cannabis* seed as medicine**

*Cannabis* seed has been used as a medicine for different diseases since the vedic period.. It is beneficial to itself on platelet aggregation, and heart diseases of cardiovascular health [7]. It is also known for different forms of non-formal and medical treatments. *Cannabis* included intoxicant, stomachic, antispasmodic, anodyne etc. for the medicinal value. Seeds are used for the cancerous and tumour diseases. *Cannabis* seed is connected with the treatment of chemotherapy that is induced the nausea and vomiting. [8]

### **Use of *cannabis* seed oil**

*Cannabis* seed oil include high content of polyunsaturated fatty acids .It also include antioxidants such as tocopherols and carotenes. They are used in resulting of nutritional aspects. In *cannabis* seed oil is extracted by using the supercritical carbon dioxide as a solvent preserves. *Cannabis* seeds are free from tetra-hydro-cannabinol (THC). For the production of food, cosmetic, biodiesel, and polymer cannabis seed oil is used [9].

### ***Cannabis* abuse**

The regular abuse of cannabis leads to the significant tolerance of cannabis in humans. Various experimental trails were carried out on animals and humans, showed mental and physical dependency. It is characterized by significant withdrawal symptomatology upon

cessation of chronic cannabis exposure, has not been well established or clearly defined in any species. The regular abuse of cannabis leads to the changes in behavior of the person who is using this drug. It is reported that regular abuse of this drug can lead disturbance in central nervous system and other organs, rather than the development of dependence <sup>[10]</sup>. In some countries use of cannabis is legal and doctors authorize the amount of marijuana they and their patients feel is necessary <sup>[11]</sup>.

## Conclusion

Cannabis plant is also known for its medicinal properties. We need to search more hidden properties so that this magical plant can be screened for some tough diseases. It is known for its antibacterial property which can also be utilized for making some formulations.

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