Summary

Cannabis sativa is a dioecious (having male and female flowers in separate plants), green, leafy plant with characteristic opposite, usually seven-fingered, lance-shaped leaves; on dry, sandy slightly alkaline soil. Cannabis is not a single substance but contains a large number of different components; over 420 have been identified to date. The cannabinoids, of which there are over 60, are the most important class containing the active principle responsible for the psychotropic effects of the plant, delta-9-tetrahydrocannabinol (referred to in the following as delta-9THC, or THC).

There are mainly two ways of ingesting cannabis: by inhalation, or through the lungs, and orally. Marijuana and hashish can be inhaled. Hashish can also be baked into biscuits or cake. The difference between these two modes of ingestion is observed during the onset of the drug's effects. The influence of this drug is felt more promptly when it is inhaled.

THC is absorbed by the body much more slowly after oral intake (eating or drinking) and then has a lower bioavailability of 4 to 12 percent because of the poorer absorption, catabolism (breakdown into simpler substances) in the liver, and the fact that the inactive tetrahydrocannabinolidic acids in natural cannabis products cannot be transformed into psychoactive delta-9-THC unless they are heated first, as is the case when they are smoked .

Specific research into the mode of action of cannabis was not possible until 1964 , when delta-9-THC was isolated and its structure was elucidated. It then became possible to develop substances with an action similar to THC, some of them highly potent. During the 1980s, various scientific findings removed any doubt about the existence of specific cannabis receptors. A cannabinoid receptor (CB1) located predominantly in the cerebellum, the hippocampus and the cerebral cortex was finally discovered and cloned in 1990 . A further, peripheral, receptor (CB2) was found in certain parts of the immune system (e.g., the spleen) in 1993 Investigations carried out to date would seem to confirm that these receptors are capable of affecting neurophysiological processes in the brain . Future research will reveal the extent to which processes of this type involving cannabinoid receptors are linked to the complex effects of cannabis in humans.

The prevalence of marijuana use by adolescents has fluctuated in recent decades, but overall, has increased significantly. It was found that the patterns of marijuana use had changed, especially among early adolescents. An earlier age of onset of use and an increased frequency of use were noted. Concern about the psychiatric consequences of cannabis use, cannabis might be a ‘gateway’ drug to other agents such as heroin and cocaine,It consider illegal in most countries, although legalisation campaigns have been repeatedly mounted.

Cannabis useful as a nocturnal sedative in senile neuralgias including insomnia, and valuable in treating dysmenorrheal including migraine headache and certain epileptoid or choreoid muscle spasms.

He felt it to be of uncertain benefit in asthma, alcoholic delirium and depressions. More than eighteen major studies published between 2001 and 2003 showed that the chemicals in cannabis known as cannabinoids have a significant effect fighting cancer cells. Now cannabinoids arrest many kinds of cancer growths (brain, breast, leukemic, melanoma, phaeochromocytoma, et al.) through promotion of apoptosis (programmed cell death) that is lost in tumors, and by arresting angiogenesis (increased blood vessel production).

The acute effects of cannabis use are an altered state of consciousness characterized by mild euphoria and relaxation, perceptual alterations, including time distortion, and the intensification of ordinary sensory experiences, such as those associated with eating, watching films and listening to music . The physiological effects observed immediately after consumption are reddening of the conjunctivae of the eyes, a reduction in body temperature, a dry mouth and throat, hunger, a slightly elevated heart rate and blood pressure when lying down, and a drop in heart rate and blood pressure when standing.

The main physiological and psychological effects of chronic heavy cannabis use, especially daily use over many years, remain uncertain. The main potential adverse effects are respiratory disease, cannabis dependence, and subtle cognitive impairment. Respiratory diseases are those associated with smoking as the method of administration, such as chronic bronchitis. Cannabis consumption leads to lower levels of follicle-stimulating hormone (FSH) and

luteinizing hormone (LH), and may affect the menstrual cycle, although these effects are evidently reversible and disappear once the drug is discontinued. In examining cannabis' impact on the quantity and quality of sperm, that frequent cannabis users had lower sperm counts .

The acute effects of a moderate or higher dose of cannabis impairs the skills related to safe driving and injury risk and drivers are aware of this impairment, which may prompt them to slow down and drive more cautiously, suggesting that experienced cannabis users can compensate for the deleterious effects of cannabis on driving skills.