

**Women in Green - For the first time in Israel, medical cannabis
designed for women by Bazelet
January 2021**

Starting this week in pharmacies around the country: medical cannabis oils developed for women and customized to their unique medical conditions. The new oil series is enriched with Terpene formulas and marketed under the name Femmican, part of the Bazelet brand.

In recent years, the understanding has been established that the differences between women and men do not amount to women's ability to conceive and give birth, and that their bodies function and respond differently to a variety of medical treatments, including cannabis treatment. The research team in the Bazelet Group, led by Prof. Aharon (Ari) Eyal, identified the need for compositions and dosages adapted for women and accepted the challenge. This week, at the end of about four years of research and development, the oils will be launched to pharmacies, in all of the approved Cannabinoid concentrations in Israel, and in two forms in each level of concentration - Indica and Sativa.

Dr. Noa Raz (PhD), a senior brain researcher and scientist at Bazelet, explains the rationale behind the development of cannabis oils especially tailored for women: "Optimal medicine for women is different from that for men. This approach is known in professional jargon as gender-adapted medicine, or gender-conscious medicine. Contrary to the classical conception in the world of medicine, the evidence for noticeable physiological differences between the genders is accumulating, differences that are far beyond the reproductive system. Differences between women and men exist, for example, in the functioning of the digestive system, the cardiovascular system, the immune system and in the sensation of pain."

Women have unique needs

Beyond the unique medical conditions for women such as menstrual cramps or menopausal symptoms, many diseases that exist in both genders, are more common in women compared to men. This group includes diseases such as fibromyalgia, migraine, depression, many of the autoimmune diseases, multiple sclerosis, gallstones, and more.

According to Dr. Raz: "So far, medical care for women has relied on information originating from men. A comprehensive study published more than a decade ago revealed an amazing statistic - two-thirds of diseases affecting both genders, were studied only on men. Moreover - most of the drugs available on the market today have been tried only on men. As a result, a very large part of the treatment

for women is based on knowledge acquired through research on men, and with the use of drugs whose efficiency has been proven only on men, assuming that the human gender is insignificant when it comes to medical treatment. It is clear to us today that this assumption is wrong. Indeed, different examples in the world of medicine show that women and men respond differently to the same drug treatment".

The effect of cannabis on women

Studies in humans, says Dr. Raz, as well as in vivo show that the two genders respond differently to cannabis in general, and to THC in particular: "It was found, for example, that females are more sensitive to pain relief, while males are more sensitive to the appetite-stimulating effect. "Men and women also differ in the profile of side effects associated with the use of cannabis".

Endocannabinoid system - gender variability

A study of the Endocannabinoid system, the internal system in our body that responds to the active ingredients in cannabis, reveals, according to Dr. Raz, noticeable differences between women and men: "Differences between the genders were found, among others, in the distribution and activity of the receptors that react with the cannabinoids. "Gender differences also exist in the metabolism of Cannabinoids, and in particular that of the THC."

How are FEMMICAN products different from other products today?

Cannabis may provide a solution to a wide range of medical conditions, including various chronic pains, anxiety, sleep disorders, inflammatory diseases, neuro-degenerative diseases, and others. Despite the potential, the cannabis products currently on the market are not optimal. Dr. Raz explains that the understanding about the composition of active ingredients suitable for the treatment of various diseases and symptoms is being developed, but is still far from complete: "Today we know quite a bit about the therapeutic properties of THC and CBD, the two main active ingredients in cannabis. However, many studies have confirmed that the expression of these two Cannabinoids depends on the other substances present in the plant - Terpenes. An influence known as the 'Entourage Effect'".

The Terpenes, whose patients' awareness of their existence has increased recently, are aromatic substances that are naturally found in cannabis. Beyond the taste and smell properties, Terpenes have therapeutic effects in a wide range of physiological systems, for example - the benefit of dealing with anxiety, depression and sleep disorders, pain relief, and treatment of inflammation. Dr. Raz emphasizes that in addition to the properties and direct effects of Terpenes, Terpenes also affect the response of Cannabinoids in receptors and alter the pharmacological expression of cannabis, and take part in characterizing the strain as sativa or indica.

Dr. Raz and a fellow researcher at Bazelet processed large databases of patients and were able to identify Terpenes whose increase in dosage is associated with increased therapeutic efficacy in cannabis. However, it is important to emphasize that the optimal adjustment of the Terpenes composition is specific to the treatment needs required for specific medical indications, so that Terpenes that increase the effectiveness of treatment for one disease will not be suitable for the relief of symptoms resulting from another medical condition.

"Bazelet" has developed a method for enriching its oils in Terpenes (Bcann TOP), and has harnessed the scientific and pharmacological knowledge it has accumulated to enrich the oils it produces in Terpene compositions that are adapted to specific indications and populations. A few months ago, the company launched the Bcann Indica and Bcann Sativa oils, which are enriched with Terpenes and allow for adjustment and qualities that are not possible with regular cannabis oils, which lose their Terpene content during the processing and production stages. The growing demand for these products is indicative of their success. Now, the company is adding to the variety of oils the Femmican oils which are enriched with Terpenes in a way that makes them unique for women, that is, for the therapeutic needs and purposes they require, and first and foremost - to the physiology by which their body works.

Dr. Raz explains: "Given the differences between the genders in the function of the Endocannabinoid system and the metabolism of cannabis, the optimal composition for treating a particular medical condition can be different between women and men. Data processing work done in Bazelet confirmed that there are Terpenes whose presence increases the effectiveness of treatment in women, but not in men, while other Terpenes have a beneficial effect only on men. Optimal medical cannabis products should be viewed with reference to the unique needs of the genders, the physiological differences between them, and in particular, the differences in the Endocannabinoid system, and the different response of the two genders to cannabis. It seems that the future in the world of medical cannabis is medical cannabis products customized for women, and others - that are customized for men".

Bazelet has a set of patent applications that protect the products it has developed.