



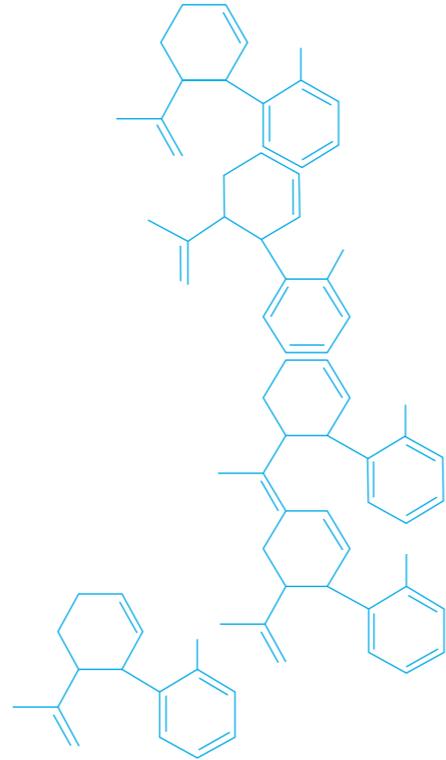
**AURORA**<sup>®</sup>  
N O R D I C



### WE SET THE STANDARD

Aurora Nordic A/S is a Danish company that produces medical cannabis of the highest quality for the treatment of a long list of medical conditions.

As a serious producer, we adhere to all clinical regulations and serve as a guarantor of a uniform quality product for the benefit of patient safety. We set a high standard.



### QUALITY AND SAFETY BORNE OF EXPERIENCE

Aurora Nordic is the offspring of a joint venture between the Danish nursery Alfred Pedersen & Søn and the Canadian company Aurora Cannabis Inc.

Aurora Cannabis Inc. is one of the world's largest licensed cannabis producers, and the company's competences encompass all aspects of cannabis production such as cannabis cultivation, drug production, distribution, research, development and processing.

The combination of Canadian experience and Alfred Pedersen & Søn's solid Danish tradition of efficient, quality-oriented horticultural operations will in future place Aurora Nordic as one of the largest producers on the European cannabis market.



## THE PILOT PROGRAMME

The medical cannabis pilot programme entered into force on 1 January 2018. The programme allows doctors to prescribe a new type of cannabis product not previously legal in Denmark.

The purpose of the pilot programme is to offer patients a legal way to try treatment with medical cannabis where authorised medicines have not worked. The pilot programme is intended to provide a better basis for evaluating the use of medical cannabis at the end of the trial period.

The duration of the pilot programme is four years.

## FIND FURTHER INFORMATION AT

<https://laegemiddelstyrelsen.dk/da/special/medicinsk-cannabis/borgere/forsoegsordningen-med-medicinsk-cannabis/>



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## INTRODUCTION TO MEDICAL CANNABIS

The medical cannabis pilot programme paves the way for new research opportunities in the treatment of various medical conditions. Medical cannabis is extracted from the leaves and flowers of the cannabis plant.

### CANNABINOIDS

The cannabis plant contains more than a hundred different chemical and pharmacological components known as cannabinoids. The most well-known cannabinoids are THC and CBD. The concentration of cannabinoids in cannabis plants depends on the variety and how it has been cultivated.

### WHAT ARE CANNABINOIDS?

Cannabinoids are the chemical component of cannabis. The components are found in the leaves and flowers of the plant. The two best-known cannabinoids are:

**THC** (DELTA-9-TETRAHYDROCANNABINOL)

**CBD** (CANNABIDIOL)



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## INTRODUCTION TO MEDICAL CANNABIS

### FULL-SPECTRUM CANNABIS

Besides cannabinoids, the cannabis plant also contains terpenes. The terpene composition varies from variety to variety and determines the taste and aroma. Terpenes are also believed to have a medicinal effect of their own, independently of cannabinoids. Medical, plant-based cannabis is known as full-spectrum cannabis when both cannabinoids and terpenes are preserved. Cannabis can also be produced as synthetic cannabis, where only the specific active substances THC or CBD remain. Patient experiences show that the effect of full-spectrum medical cannabis from the cannabis plant differs from the effect of synthetic cannabis drugs. This can perhaps be explained by a phenomenon known as the **“entourage effect”**, which means that the effect of one substance is affected by the other components with which it is combined. This is described in the European Journal of Pharmacology (July 1998) by Professor Raphael Mechoulam & Shimon Ben-Shabat.

#### THC

is considered responsible for creating the psychoactive effect associated with cannabis.

#### CBD,

unlike THC, is not a psychoactive substance and therefore has no euphoric effect.

#### TERPENES

appear to have an **entourage effect** that works independently of cannabinoids.

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### THE ILLEGAL MARKET

Medical cannabis products produced under strict regulation and subject to rigorous control by the health authorities cannot and should not be compared to illegal medical cannabis products.

The illegal products are typically produced from industrial hemp, which does not have the same terpene composition, which is considered to be an important factor in the effectiveness.

There is no guarantee that illegal products are tested for pesticide content or other impurities, such as fungal spores, and may therefore be life-threatening to patients with an impaired immune system. This lack of control also means no guarantee of effect.



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## HOW MEDICAL CANNABIS WORKS

The endocannabinoid system is a natural part of all humans, just like the nervous system and the digestive system. The endocannabinoid system is involved in many processes in our body such as appetite regulation, pain threshold, mood and memory. The endocannabinoid system naturally produces neurotransmitters (endocannabinoids). These act as messengers between the brain and the various parts of the body. The endocannabinoid system holds two different receptors: CB1 and CB2.

CB1 receptors are predominantly found in the brain, spinal cord and peripheral neurons. It is the effect of THC from medical cannabis on the CB1 receptors that triggers the euphoric effect THC may have.

CB2 receptors are predominantly peripheral and found in high density in the immunomodulatory cells.

CB2 receptors play a role in the regulation of the immune system and are targets of CBD in medical cannabis. So, CBD has no euphoric effect.

## THE EFFECT OF THE RECEPTORS

Different conditions can affect the normal function of the endocannabinoid system, including:

**Chronic stress, being overweight, pain and cancer.**

But more non-specific symptoms from, for example:

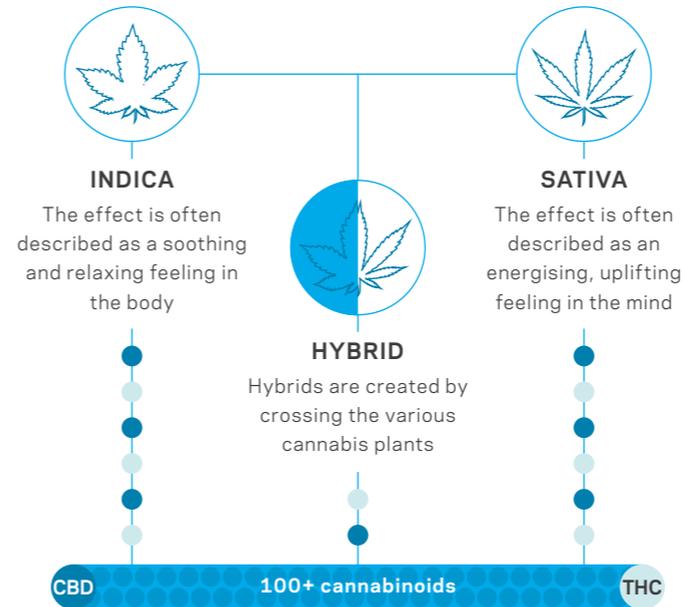
**The nervous system, the heart, the blood vessels, the gastrointestinal system, the liver and the skeleton**

may also be due to an imbalance in the endocannabinoid system.

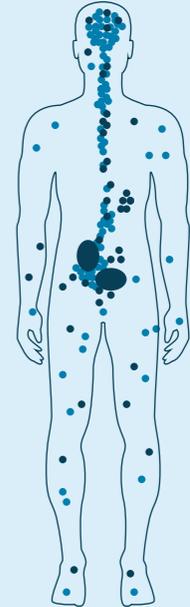
Medical cannabis binds to the receptors in the endocannabinoid system, and patient reports indicate that medical cannabis may have an effect on the symptoms associated with a long list of medical conditions.

## VARIETIES

There are three varieties of the cannabis flowering plant: **Cannabis Sativa** **Cannabis Indica** **Cannabis Ruderalis**. Sativa and Indica are the two primary varieties used for medical cannabis.



## THE ENDOCANNABINOID SYSTEM



● CB1 receptors ● CB2 receptors

## PRODUCT TYPES AND USE

**Medical cannabis can be supplied in various forms and can therefore be adapted to the individual needs of the patient.**

Cannabis oil is made from the extract of dried cannabis flowers. The extraction process is mostly done with CO<sub>2</sub> and heating. The process is carried out as gently as possible to preserve as many terpenes and cannabinoids as possible. The extract is mixed into a carrier oil, and this is checked to ensure that the strength and composition are uniform from production to production.

Cannabis oil can be taken orally directly as a drop under the tongue or in capsules that are swallowed whole.



Dried flowers can be consumed as tea or vaporised via a vaporiser. A vaporiser heats the powdered dried flowers, which can then be inhaled. The heating process is gentle and does not burn the cannabis directly. So, vaporisation is not harmful in the way that smoking is.

Finally, dried cannabis can be smoked, but this is not recommended as direct combustion destroys some of the cannabinoids and because smoking is harmful to the lungs.

The form of administration has an influence on the effect. The doctor decides in consultation with the patient which form of administration is most suitable.

## YOUR SOUNDING BOARD

### RESEARCH AND COLLABORATION

We wish to continue to increase our knowledge regarding the effect of medical cannabis, and we will focus on development and research. Our key focus will be plant breeding and the development of technology and production. We see this as a necessary step in order to be able to develop standardised medical cannabis products for the benefit of patients.

We primarily collaborate with health professionals, universities, industry and various patient organisations and interest groups. Our focus is primarily aimed at national business partners, as we are convinced of the possibilities in the strong Danish research field.

### CONTACT US

We believe that knowledge sharing and collaboration are the way forward. So, you are always welcome to call or write to us. We also welcome visits.

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