

## The Use of Essential Oils - Alpha and B-Pinene in the Treatment of Covid-19

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### 1. Abstract

Prophylaxis is not only about wearing masks and vaccines, because no vaccine can guarantee 100% immunity to infection. The best vaccines, based on statistical data from previous years, guarantee approximately 55% certainty of not being infected with a bacterial, viral or fungal infection. Prophylaxis should include a broadly developed psychological action, an appropriate diet that will combat the development of coronavirus, a supply of conventional medicine as well as alternative medicine. Recreational, sports and tourist programs. Wide contact with nature - organizing games by the fire, sunbathing in the sun. Creating artificial fires or lamps in rooms that will be used for disinfection. Another method of physical disinfection is disinfection using UV rays with a wavelength of 256 nm. Waves of this length destroy microbes both in the air and on the surfaces they affect. The society should have extensive knowledge about combating COVIDA 19, the survey shows that approximately 11% of the surveyed population has sufficient knowledge, and the rest of the population lacks this knowledge. Knowledge should be extensive and professional. Comprehensive education, from children to the elderly. The monograph shows that forest products containing alpha and beta pinnene - pine and larch syrup, and amber - are very effective in the treatment of Covid-19.

### 2. What are essential oils - alpha and β-pinene

Pinene is the main terpene found in Cannabis sativa plants. Pinene with the chemical formula (C 10 H 16) has two structural isomers that differ slightly from each other and are called alpha-pinene and beta-pinene. Alpha-pinene is one of the many cannabis terpenes. Terpenes are a large family of organic compounds that are produced by plants and some insects. Terpenes often have a strong aroma.

Alpha-pinene has a pine scent that is reminiscent of a fresh forest aroma. Alpha-pinene is found in hemp, in the oils of conifers. Rosemary is another known source of alpha-pinene, as are eucalyptus oil and orange peel oil (Cho, Lim, et al., 2017) [1].

It is also produced by many herbs such as: parsley, basil, dill, sage, hops, cumin, hemp, lavender, yarrow, Korean mint, nigella sativa (Kim, Song, et al., 2020) [2]

These two isomers have different biological activities, leading to different applications such as: fungicides, flavors, fragrances, antimicrobial and antiviral (Silva, Lopes, et al., 2012) [3].

Alpha- and β-pinene are components of drugs for the kidneys and liver (Sybilska, Kowalczyk 1994) [4], they are also used as antimicrobial agents for their membrane toxicity (Alma, Nitz et al. 2004) [5].

A- and β-pinene have also been found to inhibit breast cancer and leukemia

(Zhou, Tang, et al. 2004) [6].

A clinical trial with α-pinene was conducted using a capsule preparation called Gelomyrtol forte (one capsule = 0.3 g of mirtol, 20 mg of α-pinene, 75 mg of limonene and 75 mg of 1,8-cineol) in patients with chronic disease lungs - respiratory failure.

Respiratory failure can be acute or chronic. The former occurs suddenly - within minutes or hours - its effects can be reversed. The prognosis of patients with chronic respiratory failure, characterized by a gradual deterioration of the respiratory function that increases over a longer period of time, is much worse, its effects are often irreversible. The most characteristic symptom of respiratory failure is shortness of breath. Treatment of acute respiratory failure includes the opening of the airway. Gelomyrtol forte gave

very positive treatment results (Dorow, Weiss et al. 1987).

Pine syrup in laboratory conditions has a strong anti-cancer effect (Jo, Cha, et al., 2021), (Chen, Liu, et al., 2015) [7,8], antibacterial (Salehi B, Upadhyayet et. Al., 2019), (Chen, Chang et al., 2008) [9, 10], antifungal (Xia, Mao et al., 1999), antiviral (Astani. Reichling, et al., 2010) [11. 12]. It has an antithrombotic effect (Yang, Zhou et al. 2011) [13], stimulates cytoprotective activity against H<sub>2</sub>O<sub>2</sub> - (Porres, Burgos, et al., 2015), (Halliwell 1992) [14, 15]. It has anti-inflammatory (Falk, Hagberg, et al., 1990) [16], analgesic (Kim, Lee, et al. 2015) [17], (Rufino, Ribeiro, et al. 2014) [18], antioxidant properties, (Min, Son, et al., 2020) [19], as well as an expectorant and phlegm-dissolving effect, being a natural support in upper respiratory tract infections with runny nose and cough. In combination with eucalyptus oil, it allows you to perfectly unplug a blocked nose. Alpha-pinene facilitates breathing by expanding the airways (Kim, Song, et al., 2020), Cho, Lim, et al. 2017) [1, 2]. In the authors' research, in the treatment of Covid 19, used forest products containing alpha and beta pinnene - these are pine and larch syrup, and amber. Amber is a fossilized resin of conifers that grew 50 million years ago, in the form of yellow or brown nuggets. The healing properties of amber have been known for a long time. Succinic acid is not only a universal biostimulant, but also an inseparable component of all living organisms. It is made in human beings cells and is responsible for energy exchange, which plays an important role in immunological processes (Kosmowska Ceranowicz 2012) [20].

Succinic acid accelerates the respiration processes in biological cells, thus reducing the amount of "unused" oxygen contained in them, thus reducing the likelihood of the appearance of free radicals and protecting the mitochondrial apparatus against damage. Cells protect against degeneration, and the body against disease and early aging myself. Succinic acid has been proven to be the best and fastest-acting natural antioxidant (antioxidant) that prevents the pernicious influence of free radicals (Nieumywakin 2019) [14].

It is believed that spirit tincture on amber strengthens immunity, alleviates the symptoms of colds, runny nose, fever, as well as rheumatic and muscle pains (Ogrodnik 2008).

### **3. Treatment method with essential oils - alpha and $\beta$ -pinene covid 19 and the like**

#### **3.1. Recipe for effective covid treatment 19**

We drink a tablespoon of pine syrup and a tablespoon of larch syrup. After drinking these syrups, we take a 5-10 minute break. After the break, drink a small teaspoon of amber tincture - you can add 15 drops of propolis.

#### **3.2. After drinking the tinue, we make an hour break**

Drink the syrups 3 times a day. Amber tincture - to prepare the tincture, you need small natural amber stones, e.g. 50 grams of

natural amber, 0.25 liters of spirit.

Wash the amber and crush it in a mortar, pour the amber into a jar and pour 0.25 liters of spirit. The dish should be put aside in a warm and dark place for a minimum of 10 days. The jar should be shaken every few days. After 10 days, the tincture should turn golden in color. Pine syrup can be bought at a pharmacy or herbal store, or you can make it yourself.

#### **3.3. A way to make pine syrup**

The syrup can be made from needles, a pine flower, or green cones, if you make green cones - cut the cones into pieces. Take a 5-liter jar, pour a 1 cm layer of cones on the bottom and cover with sugar. Then another layer, cones and sugar. Pour 1 kg of sugar into a 5 liter jar. Leave the filled jar in the warm for a period of 1 month, until the syrup crystallizes well. After a month, the syrup can be poured into a bottle. or leave it in the jar. We throw cones into tea, we drink this tea from time to time. Similarly, we make syrup from needles or pine flower. Flower syrup takes longer to crystallize.

Larch syrup is difficult to buy at a pharmacy or in a store, so you should make it yourself. We take a 5 liter jar, green larch cones, or needles. Sprinkle the cones with layers of sugar in the jar in a similar way as with pine syrup. Close the filled jar and leave it for up to 1 month in a warm place. It is similar with the needles - we cover them with sugar, but the syrup crystallization time is even longer, up to 2 months. After a month, we have a wonderful and very tasty larch syrup.

Make the ginger syrup as follows: cut the ginger into small pieces and throw it into a jar, sprinkle it with sugar in a small jar. The next day we have the syrup ready. Squeeze half a lemon into the ginger syrup, which makes it taste better.

Lemon, onion and wild garlic syrup - cut lemon, onion and garlic into pieces and sprinkle with sugar. After a few hours, the syrup is ready. We drink all these syrups every hour. Twice a day, we drink flaxseed with warm milk, as it reduces the irritated mucosa in the esophagus.

We do not forget about vitamin D, which regulates the activity of enzymes responsible for neutralizing free radicals and strengthens the antioxidant defense system.

(Lebrun 2009).

Vitamin D also regulates the function of endothelial cells and the action of surfactants in the lungs. Pulmonary surfactant is a complex complex of lipid compounds and proteins that together change the function of the alveoli (Grant, et al. 2020) [21].

In vitro replication of SARS-CoV-2 was inhibited by the action of nitric oxide, which inhibited the growth of viral proteases. Nitric oxide synthase is important for healthy endothelial function (Yuyun et al. 2018) [22] and has anticoagulant activity (Makhoul et al., 2018) [23].

### 3.4. Nitric oxide has been found to inhibit viral protein and RNA synthesis (Hui 2005) [24].

Nitric oxide has been found to inhibit viral protein and RNA synthesis (Hui 2005) [24]. There are organic sources that produce nitric oxide and nitrite, which are found in green leafy vegetables, beetroot and seaweed (Wojciechowska 2000), (Yamasaki 2020) [25, 26]. Treatment of Covid with 19 forest products has been very fruitful. Five-day therapy restores the patient to normal functioning, which was not achieved by conventional medicine. Similar results are presented in their works (Antonelli, Donelli et al., 2020), (Van Zyl., Seatlholo., Van Vuuren 2006), (Cho, Lim., Et al. 2017), (Kim, Song, et al. 2020), (Porres-Martinez, Gonzalez-Burgos, et al. 2015), (Martins, Baghalpour, et al, 2019) [27, 28, 1, 2, 14].

### 4. Recreation, Exercise and Diet in the Treatment of Covid-19

Not much has been done in terms of recreation and physical activity. We have many smart trainers, specialists in physical education who would be able to prepare interesting sports programs in the field of physical activity, but no one asks them about it. At the moment, the therapeutic strategies for infection are only of an auxiliary nature, there is only prophylaxis aimed at limiting the movement of people in the environment and wearing masks. We often forget that our body and psyche are one and function as a whole. The condition of our body affects our mental well-being and vice versa - a bad mood makes us physically unwell. Regular physical activity has a large impact on the stability of emotions and the improvement of our emotional well-being, which is related to coping with covid 19 A diet with resources of melanin products. In addition to exercise, it is worth introducing a vegetable and fruit diet containing large amounts of melanin, e.g. dark fruit - chokeberry, blueberry, cherry, cherry, elderberry, grapes, cranberry, blackberry, rowan, bilberry, beetroot, etc. Garlic, ginger, horseradish effectively destroy coronavirus. Melanin and neuromelanin play an important role in fighting Covid19, and are responsible for the central control of all biological, physiological and psychological processes. Raspberry is a sticky molecule. Bacteria, fungi and viruses are stuck together by it and stop reproducing (Mackintosh et al. 1995). A diet containing high pH products that are intolerant to SARS-CoV-2. Strongly alkaline products from 8.5 to 9.0. Lettuce, pineapple, watermelon, beetroot, zucchini, lemons, grapefruit, kiwi, cucumber, papaya, rhubarb, raisins, dried figs and apricots, spinach, seaweed, potatoes, alkaline water. The coronavirus likes to attack the biological membranes of the sense of taste and smell, which lead to impaired sensory function. This is due to the lack of zinc in the body. The resources of zinc in vegetables are: - tomato - 11 units of account, parsley - 13, cabbage - 16, cocoa - 17, beans - 23, wild rice - 38, linseed - 28, sesame - 29, wheat germ -31. pumpkin seeds - 33, chanterelles - 36, mushrooms - 36, adzuki beans - 36, oyster mushrooms - 48. Selenium deficiency as well as zinc deficiency develops viral infections and is dangerous - especially for seniors and people with comorbidities. The activity

of the coronavirus RNA polymerase responsible for the current pandemic - the main enzyme that makes it possible to duplicate the genetic material of this infectious agent - has been shown to be closely related to zinc deficiency in the body. Selenium and zinc can be very effective when given together. These elements not only protect cell membranes from perforation by reactive free radicals and singlet oxygen, but also prevent viruses from mutating and effectively prevent viruses from multiplying in cells. This strength comes from the antioxidant properties of selenium. Fish, shellfish, garlic, Brazil nuts and mushrooms are rich sources of selenium. COVID 19 dies at 65 degrees Celsius - we organize bonfire meetings. We make games for children and teenagers by the fire. The temperature around the fire is from 100 - 800 degrees C and more. This temperature reduces the overall lifespan of COVID 19 throughout the human body and disinfects clothes. There is no possibility of COVID 19 droplet infection. Coronavirus does not develop when air circulation is present. We ventilate the air with fans. We try to ventilate the apartments frequently.

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