

A study on mustard oil advantages and disadvantages on health- review

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Abstract

Mustard oil using in food and healing of body small wounds. Infant massage with oils has been conducted for millennia in the Indian subcontinent, while the oils used can range from those that could be advantageous, like sunflower seeds oil, to those that may be harmful, like mustard seed oil. The goal of the research was to understand how commonly used oils to improve the barrier function of the skin are tolerated by young at heart, premature babies from Bangladesh. Mustard oil is very good for skin problem after bath we can apply on body, its gives natural moisture and Stop the Dry skin problem.

Keywords: dry skin curing, prohibited, cardiovascular benefits, cold & cough etc

Introduction

Mustard oil is made from mustard seed (Brassica campestral). it has done with mechanical process mustard seed are pressed oil comes out from seed it called oil then it is safe in drum, Filtering Process started removed waste article it husk is using for cattle food and oil sealed in drum kept dry and cool place. The term "mustard oil" can also refer to the pressed oil that is used in cooking in addition to the volatile mustard oil.

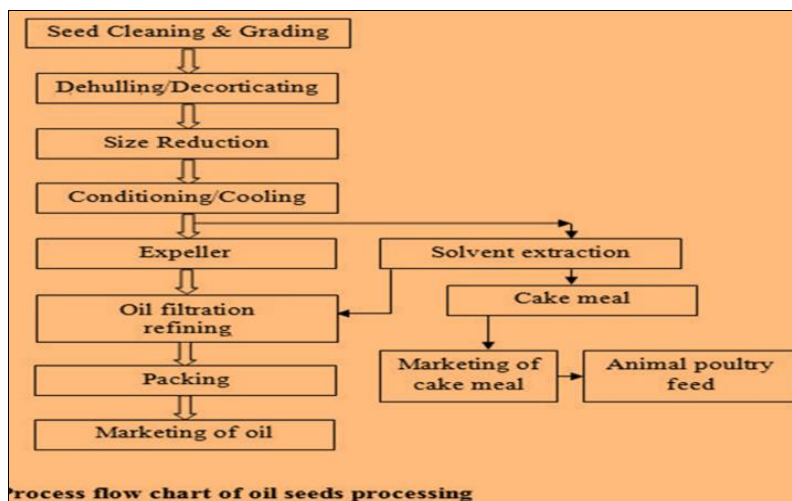
The essential oil is produced by distilling the volatile oil that is produced when the mustard seeds are ground up and mixed with water. Mustard oil actually using in Indian cooking, which produce from the mustard plant it is common components in Indian cookery. In many regions of the globe, particularly India & Bangladesh & it are frequently utilized for frying & stirring-frying vegetable due to its potent flavor, powerful flavor, and exceptionally high flame temperature. It is additionally possible and authorized

to utilize as a flavoring in mustard essential oil is a kind of aromatic oil made from mustard seeds by using a steam distilling procedure.

Mustard oil Prohibited in US due to High Erucic acid

When the Food and Drug Administration outlawed the importation and distribution of mustard seed oil as food in the mid-1990s, the United States followed likewise sixteen years later (Sen, 2011). The product's outside usage, for as oils for massage, were nevertheless thought to be appropriate. The region of South Asia is a major consumer of mustard oil, which is oily oil with low levels of fats that are saturated. It additionally contains a high concentration of erucic acid, which has been linked to rodent heart rate Lipidosis. The American Food and Drug Administration (FDA) decided to forbid the consumption of mustard seed oil in cooking as a result of this data [30].

How we can get Mustard oil or Processing of mustard oil



Source of image (<https://suryamustardoil.com/mustard-oil-process>)

Fig 1

There are eight advantages to using mustard oil along with essential oil, as well as several straightforward applications, listed below.

1. Possibly prevents microbial growth

It has been discovered in several research that mustard oil that is essential has strong antibacterial qualities and may aid in preventing the development of a particular kind of harmful microbes [1]. A number strains of bacteria, including the bacteria *Escherichia coli*, *Staphylococcus aureus*, or *Bacillus cereus*, grew less rapidly when exposed to white mustard oil, an essential oil, based to a test-tube study [2]. Another test-tube investigation contrasted harmful bacteria with the antimicrobial properties of aromatic compounds like mustard, thyme, or Mexican oregano [3]. The most successful essential oil, according to the study, was mustard. Additionally, it has been shown in several test-tube studies that mustard essential oil may prevent the development of specific fungi and mould [4, 5]. More research is necessary to ascertain how mustard essential oil may impact human health, though, as the majority of information available are limited to test-tube studies.

2. Possibly enhancing the well-being of your skin and hair

Mustard oil is using hair message it is very good for therapies. Mustard oil also used for wax of legs and curing cracked heals. Bangladesh country using oil for baby massage. It is also using for hair growth it is very beneficial for scalp and skin [6].

3. Possibly reducing pain

A molecule found in mustard seed oil called ally a solution of is has been extensively researched for its impact on the body's pain receptors [7]. Despite a shortage of individual human studies, study on mice indicated that adding mustard oil to their water helped reduce overall discomfort or injured certain painful sensors [8]. The alpha-linoleic acid (ALA), a form of omega-3 fatty acids that can reduce swelling and improve discomfort associated with illnesses like rheumatoid arthritis, is also abundant in mustard oil [9, 10]. Remember though, natural mustard seed oil has been known to result in severe skin burns when used topically for an extended period of time [11].

4. May inhibit the proliferation of cancer cells

Some kinds of cancerous cells can grow and spread more slowly as a result of mustard seed oil, according to offering study. Using an earlier investigation, natural mustard seed oil was found to be more effective than corn oil or fish oil at preventing the formation of cancerous cells in the colon in rats [12].

A further study on animals revealed that mustard seed powder containing ally isothiocyanate reduced the development of bladder cancer by approximately 35 percent and prevented it from migrating into the muscle wall of the bladder [13]. Similar results were obtained in a test-tube investigation, which found that providing an ally isothiocyanate compound derived from mustard essential oils slowed the growth of kidney cancer cells [14].

5. Possibly beneficial for cardiovascular health

Monounsaturated fatty acids, a form of unsaturated fat that can be found in foods like nuts, seeds, and plant-based oils,

are abundant in mustard oil from seeds [15, 16]. Numerous advantages, particularly in relation to cardiovascular health, have been associated with fatty acids that are monounsaturated. In reality, investigations suggest that they could aid in reducing cholesterol, blood pressure, and triglycerides, each of which are considered associated with an increased risk for cardiovascular illness [17, 18]. Furthermore, according to some studies, switching from unhealthy saturated fats to monounsaturated fats may decrease the amount of LDL (bad) cholesterol, for example, preserving the cardiovascular system [19]. While the nutritional benefits of monounsaturated fatty acids have been well documented, certain research studies have found conflicting evidence regarding the positive impact of mustard seed oil itself on heart function. For instance, a tiny research in the north of India of one hundred thirty seven individuals discovered an increased risk of cardiovascular disease in those who ingested higher mustard seed oil [20]. A frequent intake of mustard oil, as opposed to sunflower oil, was linked to a reduced likelihood of heart attack and stroke, according to an earlier Indian research including 1,050 persons [21].

6. Brings down inflammation

Historically, mustard seed oil has been applied externally to treat illnesses like pneumonia and bronchitis that induce inflammatory in addition to helping lessen inflammation and signs of arthritis [22] despite the fact that the most recent work involves model animals, one mouse experiment indicated that mustard seeds consumption reduced numerous inflammation-related indicators [23].

While the most recent investigation has been conducted on animals, one mouse research discovered that mustard oil consumption reduced multiple inflammation-related indications in psoriasis [24]. According to research, omega-3 fatty acids have significance for controlling the immune system's inflammatory reactions & can decrease inflammation and oxidative stress [25, 26].

7. Possibly helpful for cold symptoms

The all-natural treatment for symptoms of a cold including cough or congestion is natural mustard oil. It may be used straight to the chest after being combined with camphor, a substance frequently present in lotions & creams and lotions. As a substitute, you might attempt the pure mustard oil steam therapy, that is adding a few droplets to a pot of boiling water and breathing in the steam. Fortunately is at present no proof that using mustard seed oil to treat respiratory problems is effective, and there is no study to support this claim [27].

8. Strong smoke point

The degree Celsius when an oil or fat starts to degrade and emit smoke is known as the "smoke point." "In addition to having a detrimental impact on the flavor of the end result, this can lead to fats oxidizing and creating dangerous free radicals, which are extremely reactive chemicals [28]. Pure mustard oil is comparable to other fats like butter in terms of its high smoke point of about 480°F (250°C).

Due to this, it is frequently chosen for high heat cooking techniques like frying, roasting, baking, and grilling in nations like India, Pakistan, and Bangladesh.

Furthermore, it is mostly made up of monounsaturated fats, which are more resistant to heat-induced degradation than polyunsaturated fats [29].

How to apply it

Natural mustard seed oil cannot be used as a vegetable oil in several nations, including the US, Canada as well, and Eu. This is because it contains an erucic acid-containing fatty acid, which may be harmful to the heart. On the contrary, because it is generally recognized as safe (GRAS), mustard essential oil is created by steam distilling mustard seeds, and the FDA has authorized it for use as a taste component. Although they are two distinct types of oil both come from the mustard seed and share a lot of the same beneficial components. Both may be taken together, diluted with carrier oil, and used topically as massage oils, or they can be combined to make DIY skin serums and scalp therapies. Carefully perform a patch test by applying a small amount to your skin and waiting a minimum of twenty-four hours to check for any inflammation or irritation. There is no recommended dosage for mustard oil, and nothing is known about how the chemical affects humans when administered topically. In order to establish your tolerance for topical application, it is advisable to start with a small dose, such as 1 tablespoon (14 mL), and then gradually increase it.

Conclusion

- Research in tube cultures suggest that mustard oil that is essential may aid in reducing the development of some fungus & microorganisms. Certain individuals use mustard seed oil to support healthy skin and hair. Yet, the majority of the available data regarding the advantages of mustard seed oil for hair and skin is only based on personal experience. According to one animal research, mustard oil may lessen pain by making certain nerve receptors in the body less sensitive. Additionally, ALA, an omega-3 fatty acid found in mustard oil, may lessen pain and inflammation. Studies in test tubes as well as in animals suggest that mustard seed oil and its constituent parts may help slow the development and metastasis of some cancer cells. Despite conflicting evidence, mustard oil is rich in monounsaturated fats, which may lower a number of risk factors for cardiovascular disease. Taking mustard seeds regularly may lessen the swelling brought on by the condition, according to a single animal study. Fatty acids known as omega-3, which can be discovered in mustard oil, may help to reduce irritation and oxidative stress. Occasionally people turn to mustard oil as a home cure for signs of a cold. However, there is no proof that it has any positive effects. The majority of the fat in natural mustard seed oil is monounsaturated, and are more heat-resistant than polyunsaturated oils and have a smoke point that is elevated. Grinding the seeds out of the seed plant yields pure mustard oil, which is a particular sort of oil. Mustard oil as an essential oil is thought to be a superior option as a flavoring ingredient because raw mustard oil includes dangerous substances like erucic acid. Fresh mustard seed oil or mustard essential oil can reduce swelling and discomfort, inhibit the growth of microorganisms, limit the formation of cancer cells, and improve the condition of your skin and hair. Both can also be combined with an oil carrier to be applied topically in human hair treatments, face masks, and massage oils.

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