

## Review on Almond as Pharmaceutical Aid

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### Abstract

An almond is also known as the "king of Nuts". Almonds generally belong to the family of Rose called *Rosacea*. The Scientific name of Almond is *Prunes dulcis*. If you are looking for a versatile oil, you must try almond oil. It is made from two types of plum almonds: Sweet almonds, Bitter almonds. Its anti-inflammatory, immunity-boosting, and cardiovascular benefits help you better control the fats in your body. Sweet almond oil is the best for your skin type. Most of the health benefits associated with almond oil come from its high content of healthy fats. Almond sources include vitamin E oil (tocopherol), copper, and magnesium and high-quality protein. Almond oil is an edible essential oil that is rich in many nutrients and has positive effects on our health. High in vitamins D and E as well as minerals, almond oil helps reduce inflammation, shield the skin from UV radiation damage, and restore moisture to the skin. It also has significant levels of calcium, magnesium, potassium, and vitamins A and B. Rich in unsaturated fats, it penetrates deeply to leave your complexion feeling softer. Its 19% linoleic acid content hydrates cells more effectively, soothes skin, and protects against oxidative damage.

### Keywords

Almond, Almond oil, Sweet almond oil, Bitter almond oil.

### Introduction

Almonds generally belong to the rose family (*Rosacea*). An almond is also known as the "king of Nuts". Almonds are also divided into its own family -

- Prunaceae
- Amygdalaceae

So, the genus *Prunus* is said to have originated from a subfamily, *Spiraea*. Almond is a small deciduous tree with a height of with trunk about 4m-10m, diameter about 30cm. Early young shoots are green, but when exposed to light it will be purple. Leaves are 3-5 inches in length. The flowers are pale pink in colour and consist of 5 petals. The tree reached out to him and it matured in autumn 5 to 6 years after planting. It consists of the core or flesh, the middle shell and the outer green shell. [1]

### Origin and History and Cultivation of Almond:-

Derived from the almond tree with its beautiful flowers and popular "fruit," almond oil has been used for skin care and beauty since ancient Chinese, Ayurveda, and Greco-Persian medical history.



**Fig. no.1:- Almond Fruit**



**Fig. no.2:- Almond Plant**

It is worth noting that it is not the same as almond oil or sweet almond oil, which you may have heard. Sweet almond oil comes from a special seed and has a slightly different texture. First, while sweet almond oil is a solid and insoluble oil, bitter almond oil is a highly volatile and volatile essential oil. Historically, people have used the latter to treat sore throats, aches, pains and coughs, but it is necessary to be careful and use it after careful consultation because it can be poisonous.

Suffice it to say, this is not what we use in our products. In contrast, sweet almond oil is often used to treat dry skin conditions such as psoriasis and eczema. It has been used for centuries and is often found in massage therapy rooms. [2]

Almonds are adapted to the Mediterranean climate of the Middle East, from Syria, Turkey, Iran and east to Pakistan. In ancient times, it spread along the Mediterranean coast to northern Africa and southern Europe. Zohary and Hopf almonds were among the first fruit trees to be bred for their ability to grow beautiful almonds. Domesticated almonds appeared in the early Bronze Age (3000-2000 BC). Wild almonds were harvested for food and were inevitably processed by melting or roasting to remove toxins before cultivation and feeding. However, the sweet taste of eaten almonds is not toxic. Diamond argues that simple genetic crossings resulted in the absence of the glycoside amygdalin, and that early farmers bred this mutant, first in soil piles, and then thought to be indoors in gardens.

Almond sources include vitamin E oil (tocopherol), copper, and magnesium and high-quality protein. They contain a high proportion of unsaturated fatty acids as well as a high proportion of bioactive molecules (fibres, phytosterols, vitamins, other minerals, and antioxidants) are beneficial for cardiovascular disease. Almond oil is an edible essential oil that is rich in many nutrients and has positive effects on our health. If you are looking for a versatile oil, you must try almond oil. It is made from two types of plum almonds:

- Sweet almonds
- Bitter almonds [1]

**Bitter almond oil** is extracted from short bitter almonds. It has a strong fragrance and is used in aromatherapy. Bitter almond oil is not suitable for the face and skin as it contains the glycoside amygdalin, which is used for only a few medicinal purposes.

**Sweet almond oil** is extracted from edible almonds (the ones we eat). It has high nutritional value and contains protein, potassium, magnesium, phosphorus, copper, zinc, vitamin A, vitamin E (tocopherol) and omega-6 fatty acids, which is suitable for the face and skin.

According to the FDA, almond or bark almond oil has a variety of uses and can be used in a variety of cosmetic formulations to enhance the effectiveness of each product. [2] It is an oil made from glycerine and oleic acid and has a mild odour and slightly nutty taste. The production of almond oil is an important business worldwide. Almond oil is produced through a separation process of extraction and pressing. [4]



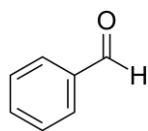
**Fig. no.3 Almond Oil**

### Properties of Almond Oil -

1. It may act as an antioxidant.
2. It may have anti-inflammatory action.
3. It may act as an immunity booster.
4. It may increase good cholesterol levels.
5. It may have antibacterial activity.
6. It may have antifungal properties.
7. It may act as an emollient (moisturising agent).[4]

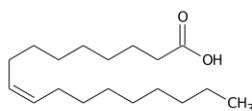
### ● Chemical Constituents :-

- Both types of almonds contain 40-55% fixed oil and approximately 20% protein, mucilage and emulsified protein.
- Bitter almonds contain 2.5-4.0% of the colourless crystalline cyanogenic glycoside amygdalin.
- Almond oil is obtained by crushing the seeds and presenting them in cloth bags between hot iron plates.
- Refined oil is what is refined. It is a pale yellow liquid with a slight odour and a clean, nutty taste.
- It contains olein, which contains linoleic acid and small glycosides of other acids.
- After maceration, bitter almonds release a volatile oil, which is used as an aromatic substance, due to the hydrolysis of amygdalin.
- Sweet almonds are widely used as food, but bitter almonds are not suitable for this reason.
- Essential oil or unrefined almond oil is obtained from the cake that remains after showing the bark.
- Place it in water for a few hours to allow the amygdalin to hydrolyse.
- Hydrocyanic acid and benzaldehyde are separated by distillation.



Benzaldehyde

- Almond oil is oleic acid (62-86%), linoleic acid (17%), palmitic acid (5%), meristic acid (1%), palmitoleic acid, margarine, stearic acid, linolenic acid, A mixture of arachidic acid, gado linoleic acid, behenic acid and erucic acid.



Oleic Acid

- Bitter almond oil consists of benzaldehyde and 2-4% of hydrocyanic acid.
- All the hydrocyanic acid and therefore most of the benzaldehyde has been removed from pure bitter almond oil.
- Unsaponifiable substances include  $\beta$ -sitosterol, A5-avenasterol, cholesterol, brassicasterol, and tocopherol.

## Minerals Profile

Table No. 1:-Minerals Profile

Sr. No.	Nutrients	Units	Value per 100 g
1.	Water	g	4.41
2.	Energy	k.cal	579
3.	Protein	g	21.15
4.	Carbohydrates	g	21.55
5.	Fibre, dietary fibre	g	12.5
6.	Sugar	g	4.35
7.	Calcium	mg	269
8.	Iron	mg	3.71
9.	Magnesium	mg	270
10.	Phosphorus	mg	481
11.	Sodium	mg	1
12.	Zinc	mg	3.12
13.	Folate, DFE	$\mu$ g	44
14.	Potassium	mg	733
15.	Vitamin E	mg	25.63

16.	Fatty acids, total monounsaturated	g	31.551
17.	Vitamin B-6	mg	0.317
18.	Vitamin A	IU	2

### Nutritional Value of Almond Oil:-

Its anti-inflammatory, immunity-boosting, and cardiovascular benefits help you better control the fats in your body.

Sweet almond oil is the best for your skin type.

Here are the nutritional values of 1 tablespoon (14 grams) of almond oil.

- Calories - 119
- Saturated fat - 1.1 gram
- Monounsaturated fat - 9.4 gram
- Polyunsaturated fat - 2.3 gram
- Phytosterols - 35.9 mg
- Total fat - 13.5 gram

Most of the health benefits associated with almond oil come from its high content of healthy fats.

### Fatty Acid Breakdown:-

Here are the values of fatty acids in almond oil:

- Saturated fat - 10%
- Monounsaturated fat - 70%
- Polyunsaturated fat - 20%

Eating a diet rich in unsaturated fat has been linked to many health benefits, including a reduced risk of heart disease and obesity. [4]

High in vitamins D and E as well as minerals, almond oil helps reduce inflammation, shield the skin from UV radiation damage, and restore moisture to the skin. It also has significant levels of calcium, magnesium, potassium, and vitamins A and B. Rich in unsaturated fats, it penetrates deeply to leave your complexion feeling softer. Its 19% linoleic acid content hydrates cells more effectively, soothes skin, and protects against oxidative damage. [5]



- **Vitamin A :-**

Vitamin A contains retinol, which supports the formation of healthy skin muscles and removes existing wrinkles. Both the upper and lower layers require vitamin A from the epidermis. It appears to prevent UV damage by interfering with the mechanism of collagen damage. Being an antioxidant, it protects your body from sunburn.

- **Vitamin E :-**

An enzyme that protects cells from harmful "free radicals". Vitamin E also helps your body fight infection and keep blood vessels open without bleeding. You may also hear them referred to as fat-soluble vitamins, which means they require fat to dissolve in your body. This vitamin has antioxidant properties that reduce tissue damage and ultraviolet (UV) damage to the epidermis. A fat-soluble vitamin that acts as an antioxidant and protects body cells from damage. It is contained in our oil (sebum), which acts as a natural barrier in the skin to retain moisture.

- **Omega-3 fatty acids :-**

These foods prevent premature ageing and sun damage. There are Omega-3 fatty acids. They moisturise the skin and combat red, dry or flaky skin associated with skin conditions like atopic dermatitis and psoriasis. This is because omega-3 fatty acids strengthen the skin's defence mechanisms, keeping it hydrated and free of allergens.

- **Zinc :-**

This is important for treating acne and other scars. However, oral zinc is effective and valuable. Promotes muscle healing after injury. It is necessary for cell membranes to be stable and for cells to reproduce and develop. Because soil works together with other things in the body, such as iron and copper, it protects the skin from the sun. It also acts as an antioxidant.[5]

### **Refined vs Unrefined Almond Oil:-**

- After harvesting, the almonds are packed and dried, and the oil is extracted using different methods.
- Pure (refined) almond oil is extracted from almonds by heat and chemical treatment.
- This method has a negative effect on the nutritional value of the oil because most of the nutrients found in almond oil are destroyed during heat or chemical treatment.
- While this process creates an unhealthy oil, virgin almond oil can withstand high temperatures, is less expensive than unrefined varieties, and provides more value to consumers.
- Unrefined almond oil is produced by pressing raw almonds without using excessive heat or chemicals.
- This low-temperature process helps almond oil retain many of its nutrients, making unrefined almond oil a better food choice.[6]

**Evaluation Parameters Of Almond Oil :-**

- **Colour :-** Yellow or Pale Yellow
- **Specific gravity :-** 0.981
- **Refractive index :-** 1.45-1.47 (1.465)
- **Acid value :-** 4.0 max
- **Viscosity :-** the refined oil is light yellow, bright and are almost odourless. **Low viscosity oil.** High oleic and linoleic acid contain and as such it is considered a fatty acid.
- **Iodine value :-** 93-105
- **Peroxide value :-** 13.3
- **Saponification value :-** 180-195
- **Density :-** 0.911-0.920

**Uses Of Almond and Almond Oil:-**

1. Almond Oil for Health benefits.
2. Almond Oil for Skin benefits.
3. Almond Oil for Hair benefits.
4. Almond Oil in the Kitchen.

1. **Almonds for health benefits :-**

- **Almond Oil for Brain Health :-**

Almond oil can be used as a massage oil during Aromatherapy. It can be seen to have a positive effect on the quality of life of patients. According to Moradi et al., 2020, almond oil can help reduce stress, anxiety, depression and fatigue, and improve a person's sleep. However, more research is needed to improve the benefits of almond oil for mental health. Drink clean. If you have symptoms related to memory, consult a doctor for adequate treatment.

Almond oil may be enriched with Omega-3 fatty acid to help enhanced memory function.

Omega-3 fatty acids help to prevent brain death. It also reduce pain and affects brain function. [4]

- **Almond and Cholesterol :-**

Eating almonds increases plasma vitamin E levels. Therefore, red blood cells can lower cholesterol levels. This is a study published in the Journal of the American Dietetic Association. Vitamin E is a powerful antioxidant that prevents arterial oxidation Cholesterol. Eat almonds (*Prunus amygdalus*) daily. Basis provides you with vitamin E, which helps lower cholesterol levels.

Full of monounsaturated fatty acids, almond oil can increase the level of “good” cholesterol, high-density lipoprotein (HDL). It can also reduce the level of “bad” cholesterol, or low-density lipoprotein (LDL), which replaced saturated trans fats.



- **Almonds and cardiovascular disease :-**

Almonds are rich in antioxidants, which can lower blood pressure and improve blood circulation. Consume almonds regularly. Improves lipid and cholesterol levels in the blood. Because of this, cardiovascular disease is reduced.

- **Almonds and Blood Sugar :-**

Almonds can control blood sugar levels. It is rich in healthy fats, fibre and protein. Almonds contain high amounts of magnesium which helps to control blood sugar. Diabetic patients are deficient in magnesium. It lowers blood sugar level and improves the insulin functions.

- **Almonds and blood pressure :-**

Almonds are rich in magnesium which helps to lower blood pressure. Its deficiency may lead to overweight or high blood pressure. High blood pressure is the major cause of heart attack, strokes and kidney failure.

- **Almonds and Weight Loss :-**

Nuts are low in calories, eating almonds can help you lose weight. Women can lose weight by eating almonds.

- **Almonds and hunger :-**

Almonds lessen total calorie intake and suppress appetite. Almonds are rich in proteins and fibre and low in carbs. Consuming fibre and protein can help you eat fewer calories since they suppress your appetite. It leads to combating hunger.

- **Allergy of Almonds :-**

Picking almonds is a problem. Symptoms of almond allergy include: nausea and vomiting, abdominal pain and cramping, problems swallowing, diarrhoea, itching, and shortness of breath. So, if you are allergic to almonds, avoid foods that contain almonds. It is used to make frangipani, marzipan and praline. It is used in cakes, cookies, chocolate and some alcohol. Almond and weight loss Almonds are very effective in weight loss. Eating almonds can increase metabolism and increase weight. [1]

- **Other Potential Uses Of Almond Oil :-**

- Medical devices such as oxygen masks can cause eye pain. If you apply almond oil on your face, you can reduce the risk of this type of damage.
- Almond oil can be helpful in treating athlete's foot and athlete's foot.
- It may contain important nutrients such as vitamins K and E that help strengthen the immune system.
- It may have anti-inflammatory and anti-free radical properties that may support liver health.

- Almond oil can be used as a foot massage.
- It may help reduce fatigue and improve quality of life in haemodialysis patients.
- The benefits of almond oil for the skin include the reduction of acne. Almond oil's vitamins and antibacterial properties may be effective against acne-causing bacteria.[4]

## 2. Almond Oil for Skin benefits :-

While many people know the health benefits of almonds, few know about the amazing benefits of almond oil for the skin. Almond oil is known for its emollient properties and has been used to reduce dryness for many years. Sweet almond oil is good for applying on the skin. Almond oil is light, non-sticky and suitable for all skin types.



**Fig. no. 4 :- Uses of Almond Oil for Skin**

### ● Reduces puffiness and under-eye circles:-

- ✓ Almond oil works wonders against dark circles and puffy eyes.
- ✓ It contains vitamin A which has been proven to reduce the appearance of fine wrinkles on the face.
- ✓ According to a study, vitamin A can reduce wrinkles caused by natural ageing and increase the formation of skin cells.
- ✓ In addition to vitamin A, almond oil contains Omega 3 fatty acids, which help to prevent premature ageing.
- ✓ Due to its anti-inflammatory and antioxidant properties, almond oil is a great way to reduce bags and circles.

### ● Improves Complexion and Skin Tone :-

- ✓ there are several benefits of using sweet almond oil on your face.
- ✓ over time, it evens out your skin tone, improving your appearance and revealing refreshed skin.
- ✓ Almond oil is lightweight, non-irritating and perfect for sensitive skin.

✓ Almond oil can also help restore the skin's natural glow.

✓ Therefore, sweet almond oil is also used for body massage.

- **Helps Reverse Sun Damage :-**

✓ Almond oil is revered for its ability to protect skin from sun damage, strengthen the skin's protective barrier, and reduce signs of ageing.

✓ It contains Omega 3 fatty acids, which can protect you from the ultraviolet rays of the sun and protect you from ageing.

✓ It also contains vitamin E, which has antioxidant power that can reduce skin damage.

- **Treats Dry Skin :-**

✓ Almond oil has been used for generations to treat skin conditions such as eczema and psoriasis.

✓ Contains moisturisers and emollients. The moisturiser absorbs water into the tissue and seals it with oily ingredients. Emollients soften the skin and fill in gaps.

✓ They help regenerate the skin by enhancing its protective functions rather than removing it.

✓ Applying almond oil to your skin is a great way to lock in moisture and keep your skin glowing throughout the day.

✓ It is instantly absorbed into the skin and moisturises without leaving the skin greasy.

✓ Put almond oil in your mouth (lips) to aid digestion.

- **Improves Acne :-**

✓ It's an alternative to harsh medications for acne sufferers because it removes excess oil from the skin and reduces itching.

✓ Almond oil for the face, when used as a cleanser, can prevent acne caused by the oil.

✓ It also contains the auxiliary tazarotene. Cleans pores and reduces acne.

✓ Almond oil has a very smooth texture, which is one of its best qualities. This allows the oil to penetrate the skin, remove accumulated dirt and allow the body to absorb it more easily. As a result, the appearance of acne is suppressed.

✓ Almond oil contains vitamin A, which reduces acne.

- **Reduce the Appearance of Scars :-**

It contains zinc, which is thought to help heal acne and other facial blemishes. A lack of vitamin E helps brighten the face.

- **Reduce the Appearance of Stretch Marks :-**

Almond oil has a very soft texture; therefore, when placed on your body where the exercise equipment is found, the tissue is softened and allowed to stretch without aggravating the injury. Exfoliated skin can withstand more stress than untreated skin. [5]

- **As a Moisturisers :-**

Add almond oil to your night skin care routine. Apply almond oil to your clean face by gently massaging until it is completely absorbed. Leave it overnight and wash it off the next morning. Almond oil can also be massaged into the body to remove blemishes, dryness and stretch marks. The Oleic acid, Linoleic acid, Vitamin B and Zinc was beneficial for dry skin condition such as eczema and psoriasis.

- **As a Makeup Remover :-**

Take a generous amount of almond oil in your hand. Massage into the face and neck to remove makeup. Wash your face with warm water. Use it as the first step of a double cleanse to cleanse your face and pores. Then wash your face with a mild cleanser. [3]

### 3. **Almond Oil for Hairs Benefits :-**

Almond oil is extracted by crushing the seeds of the almond tree (almond tree) and extracting the oil from the product. Almonds have been valued in many ancient cultures for their healing and health benefits, including high protein, omega-9 fatty acids, and vitamin E. These properties suggest that almond oil may have anti-aging and anti-aging properties. Your hair. Sweet almond oil is an oil that is sold and recommended for use as a hair product. Keep reading to find out if sweet almond oil is something you should try for your hair.

- **Almond Oil for Soften Hair :-**

Almond oil is an emollient, which means it fills the voids in your hair on a cellular level. This way your hair will feel nice to the touch. Using coconut oil on your hair can make it smoother over time. When coconut oil is incorporated into your hair care routine, you may find that your hair is easier to wash and style.

- **Almond Oil for Strengthening and Repairing Hairs :-**

Using certain oils to treat your hair can reduce breakage and split ends. The lubricating properties of nut oils, such as almond oil, reduce friction during combing. Studies on Brazil nut oil (like most sweet almond oils, which contain oleic and linoleic acids) have shown that treatment with small amounts of the oil improves the appearance of the skin.



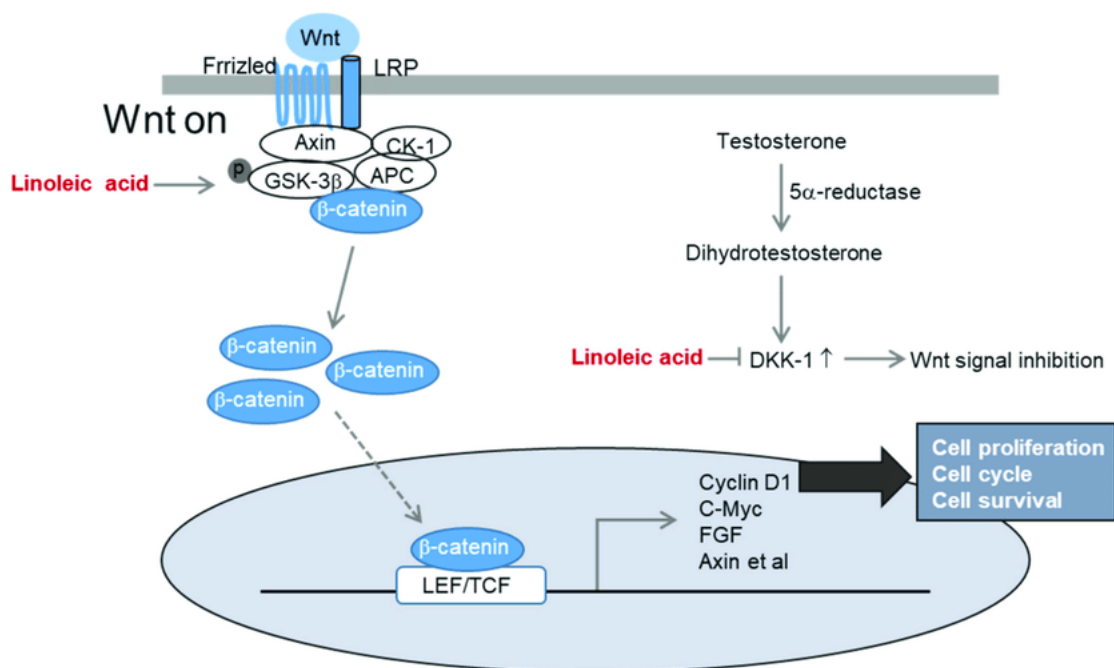
**Fig. no. 5:- Uses of Almond Oil for Hair**

● **Almond Oil could make your hair growth :-**

There are no clinical trials showing that almond oil is effective in hair growth. But here's what we do know: almond oil can make hair stronger and less prone to splitting, which means your hair won't grow out as quickly from the scalp. Almond oil is rich in vitamin E, a natural antioxidant. As antioxidants fight environmental stressors around your hair, your hair will be younger and healthier.

An Oleic acid and Linoleic acid showed improvement in strengthens and repairs hair.

The Mechanism of Linoleic Acids in hair loss improvement.



**Fig. no. 6 :- Mechanism of Linoleic Acid.**

- **Almond Oil treats Scalp Conditions :-**

Almond oil can also be used to treat dandruff (seborrheic dermatitis) and scalp psoriasis. Although we don't have studies showing how almond oil does these things, almond oil has been used to treat scalp conditions in Chinese and Ayurveda medicine for centuries. Applying a small amount of almond oil to the scalp can increase blood flow to the area and activate powerful antioxidants in your scalp. [7]

**How to make Almond oil/ Badam Oil:-**

Almond oil is commonly used to nourish skin and hair and is an important ingredient in many beauty products. However, it can be used for cooking at home. If you're wondering how to make your own almond oil at home, all you need is a blender and patience. You can also make almond oil if you are determined to make your own.

**Procedure I:-****1. Almond Oil Extraction Method :-**

- The hot pressing method is used to extract almond oil; This process increases production efficiency by heating the oil to one hundred degrees.

However, the most important thing to remember is that the high temperature used in this process reduces the benefits of almond oil, and sometimes eliminates them all and replaces them with drugs that may cause digestive and vascular diseases and liver and breast cancer. In order to solve these problems, the oil obtained from almonds must be made more economical by grinding or hot pressing. Although this is a time-consuming and expensive process, it is necessary to convert bad and potentially dangerous almond oil into quality almond oil. They also sell good stuff.

Almond oil extraction using the cold press method is the best method to maintain the content and quality of the oil compared to other methods.

Natural and unrefined almond oil lasts a long time even at room temperature. This product is rich in good fats like omega-3, as well as natural antioxidants and various vitamins like vitamin , vitamin E. Cold-pressed almond oil, on the other hand, retains its flavour, aroma, and colour. By doing this, the temperature of the oil will drop below 40 degrees Celsius, and in most cases will not reach 30 degrees, which helps protect the oil from being treated by natural substances. However, you should keep in mind that this method does not work well with cold pressing when taking almond oil; refrigeration is a good option.

**2. Almond Oil Extraction Without Crushing :-**

Crushing almonds is an important step in the oil extraction process. Historically, almond oil has been extracted using hydraulic presses or screw presses, both of which use cold extraction methods to preserve the quality of the oil. Different types of almonds are available at the same time in some markets. On the surface, all almonds may look the same, but their prices are very different. So you might be wondering which one is worth buying considering the price difference. In addition, it is believed that the price of almonds extracted from oil is due to the



belief that oil was extracted from them. At the same time, many people break fines at home to check the quality of the oil.

As mentioned, many consumers feel that their local dealer or manufacturer has reached the end of their life. But did you know that there is another little-known story behind the first oil exploration? Contrary to popular belief, it is not what it seems. So let's get down to the oil extraction sample and get the facts. Contrary to what you may hear, fines don't get worse. The oil was not extracted from almonds because experts believed it would be too difficult. No oil came out of any of the cylinders. In this case, it was wrong to say that almond oil was extracted. In fact, the stain may dry up on its own within a few days. The hills are oily and wet until harvest. It is said that the oil was extracted from dried almonds. In addition, it varies depending on the type of almond.

For example, while fines may come from more than three parts of India, Mamra's best fine comes from Iran. These almonds are very sought after because of the high oil content.



**Fig. no. 8:- Almond and Almond Oil**

## **Procedure II :-**

### **● Making Almond oil in a blender :-**

- Put the almonds in a blender. Almonds must be dry and clean. Make sure your blender is clean and ready to use.
- Start by mixing on low speed. Be sure to start slowly and let the almonds work their way in; beating on high speed at first will make the mixture stiffer.
- Pause the blender to remove any lumps. When you start mixing in the almonds, you may find that they start to form a ball shape; it will start to build up on the sides of the blender. Just stop the mixer to check the ingredients and return them to the rest of the almonds. You may need to do this a few times during the mixing process, so be careful while mixing.
- Mix the fines at high speed. Once they are blended, you can increase the speed of the blender to high or higher. This will help in every step.



- When the almonds are mixed well, add the olive oil. After mixing the almonds into the rich pudding, you can add a teaspoon of olive oil to speed up the mixing process. If you find that the almonds are still not mixed the way you want, you can add another teaspoon of oil.
- Keep the fines mixed. Once you are done blending the almonds, you can put them in something, like a glass bottle or Tupperware, and store them in the refrigerator for up to 2 weeks. This should be enough time for the almond oil to separate from the meat.
- Drain the oil. In order for the oil to be effective, you can tap the bottle so that the oil drips into another bottle. A sieve or strainer can also be used to separate the oil from the almonds.
- Use oil. You can use the oil to treat your skin or hair for aromatherapy purposes. You don't have to throw away the leftover nuts either. You can use it in cooking or mix it with a little canola oil and salt and spread it over the salt.[9]

- **Using an Oil Press :-**

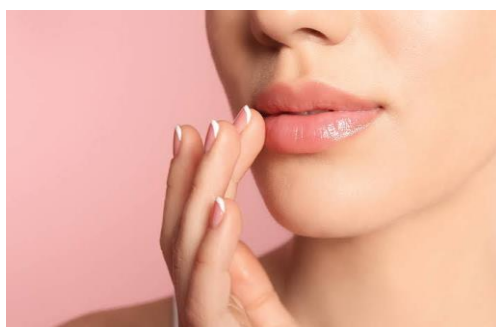
- Place the almonds on top of the press. Oil presses are less expensive than blenders, but if you're willing to spend a little, they can blend almonds better. You should place the press on a table or other solid surface.
- Start turning clockwise. Turn slowly clockwise to start releasing oil from the roasted almonds. Unlike a machine, you don't have to worry about oil building up on the sides of the unit.
- Use a cup to catch the oil. Just place the cup under the almonds and wait for the oil to drain out of the cup. The more you do it, the easier it is to break the seal.
- Use oil. You can use the oil right away and you don't have to wait weeks for the oil to separate from the fruit, like when you use a blender. However, the oil may look cloudy, but that doesn't mean it's wrong. If you want the oil to be more transparent, put it in a glass container and leave it for a day for the particles to settle.[9]

- **Using Almond Oil :-**

- Use almond oil to soften your face. Almond oil can be used as a daily moisturiser. It helps soften dry or rough skin and provides added protection to the skin. You can use almond oil for your face without using any chemicals. To use almond oil, all you need to do is wash your hands with warm water and apply 1/2 teaspoon of almond oil to your face.
- Use almond oil to make face masks. Another use of almond oil is as a face mask to protect the skin. All you have to do is mix the face ingredients in a small container to make a paste and apply it to your face using your fingers. Apply the mask in the morning, leave it on for 30 minutes and wash it off with warm water. Here are some simple ingredients to make paste :

- ✓ 1 tbsp. almond oil
- ✓ 1 tbsp. honey
- ✓ 1 tbsp. lemon juice

- Use almond oil as a face mask. A facial can help to clean and exfoliate the skin, removing dead cells and all impurities. All you need to do is add 1 teaspoon of salt or sugar for every teaspoon of perfume and mix the spices until you get a thick paste. Gently apply the oil on your face with your fingers and wash it off with warm water.
- Be careful when using peels. Your skin can be a little irritated if you wear too much face makeup.
- Use almond oil as a moisturiser. If you want to use almond oil as a conditioner, all you have to do is take a spoonful of the oil and apply it to your hair. Use a comb to detangle, then cover your hair when you're done. Wait for 30 minutes and the oil will do its magic and wash your hair with shampoo to remove it.
- Use almond oil to make a lip balm. If you want to use almond oil to care for your lips, all you have to do is gather a few simple ingredients and make your own lip balm at home.



**Fig. no. 9:- Almond Oil for Lips**

- All you have to do is melt the ingredients in a double boiler at the lowest possible temperature, remove from the heat, then pour into a balsamic tube and let sit for 24 hours before using. You can use the following materials:

- ✓ 1 tbsp. Shea Butter
- ✓ 1 tbsp. Coconut Oil
- ✓ 1 ½ tbsp. Almond Oil
- ✓ 1 ½ tbsp. Beeswax
- ✓ .15 oz lip balm tubes [9]

#### **Marketed Products:-**

1. Joy Honey and Almonds (RSH Global Pvt. Ltd.)
2. Patanjali Almond Hair Oil
3. Himalaya Baby Soap (Himalaya Wellness Company)
4. Bajaj Almond Drops Hair Oil
5. BaidyanathVansaar Rogan Almond Oil
6. Khadi Almond Oil

7. Dabur Almond Oil
8. Aloe Veda Distil Sweet Almond Oil

**Side effects of Almond Oil:-**

- Although almond oil has these benefits, it can cause some problems. Here are the benefits of almond oil:
- Bitter almonds are a type of almond that may contain cyanide. Excessive consumption or inhalation of bitter almond oil can cause cyanide poisoning.[7]
- Almond oil is generally suitable for anyone to use on the skin. Anyone with a severe nut allergy should not use almond oil on their hair or for other purposes, as it can cause a severe allergic reaction.
- Babies may be allergic to lavender, and topical use may cause dermatitis.
- Using or eating almond oil during pregnancy can cause rashes and itching. If you experience any side effects, you should contact your doctor and get the right treatment for the side effects.[4]
- Do not apply pure almond oil to hair before heat styling. The oil heats up around the hair follicles and can burn the scalp or the hair itself.[7]

**Precaution to take with Almond Oil:-**

Almond oil may be safe in moderate doses. However, eating too much can cause problems. Therefore, the following should be kept in mind:

- Pregnant and lactating women should be careful when using almond oil because it can cause problems during pregnancy. Using lotions can also cause rashes. In a bad situation, it is recommended to ask an expert for their opinion.
- Almonds are a type of nut that can cause allergies. Therefore, precautions should be taken when giving linseed oil to children and adults as allergic reactions may occur after use.
- You should not self-treat with almond oil. It is very important to take your doctor's advice and go only when advised.[4]

**Interaction with Other Drugs:-**

More scientific studies are needed to realise the interactions of almond oil with different drugs. Therefore, human beings ought to take clinical recommendations from an Ayurvedic doctor. They will guide you in the direction of the high-quality manner to have almond oil.[4]

## Conclusion

Almond, commonly known as *Prunus dulcis*, has been used for centuries in traditional medicine due to its numerous health benefits. Recent studies have shown that almond extracts and compounds, such as flavonoids, phenolic acids, and vitamin E, possess pharmaceutical properties that can aid in the prevention and treatment of various diseases. Almonds have been found to have anti-inflammatory, antioxidant, antimicrobial, and hypoglycemic effects, making them a potential therapeutic agent for conditions such as diabetes, cancer, Alzheimer's disease, and cardiovascular diseases. Further research is needed to fully understand the potential of almond as a pharmaceutical aid and to determine optimal dosages and delivery methods for clinical use.

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