

the ultimate guide to.....

MOROCCAN ARGAN OIL

- The History of Argan Tree
- Argan Oil Production Methods
- The Berber Co-operatives
- Types of Argan Oil
- The Uses of Argan Oil
- Argan Oil Products



THE

ULTIMATE GUIDE TO ARGAN OIL

CONTENTS

1. The Moroccan Argan Tree
2. How is Argan Oil made?
3. The Berber Co-operatives
 4. Types of Argan Oil
5. The Uses of Argan Oil
6. Argan Oil Products





The Moroccan Argan Tree

Argania Spinosa

The Argan tree grows naturally in only one country – Morocco and is now possibly one of the rarest species of tree on Earth.

The scientific name Argania Spinosa is derived from the word Argan which is the name of the tree in my language Tashlahait Berber. There are actually 3 different Berber dialects in Morocco and “Cheuh” or “Tashlahait” is spoken in the regions that the Argan tree grows in.

The Argan tree is an ancient tree that is a relic of the Earth's Tertiary Period, which ended about 1.6 million years ago. It is a slow growing and fiercely spiny tree that grows up to ten meters tall and can live for over 200 years.





Argan tree leaves are 2–4 cm long and silver/green in colour. Around April it produces small small flowers with five pale yellow-green petals.

The **Argan tree fruit** is 2–4 cm long and 1.5–3 cm in diameter and has a thick, fleshy, bright green peel. The fruit **harvested in July**.

The fruits are collected and then left to dry until the **husks** are hard and dark brown.

From this husk a very hard, brown coloured **nut is extracted**.

Each nut is **cracked, by hand**, yielding from one to three **small, bitter tasting and oil-rich nut kernels**. Pure **Argan Oil is made by cold-pressing these kernels**.





©2015 ARGANOILDIRECT.COM

At certain times an Argan tree can go into a hibernation mode where it does not produce any fruit or leaves for over a year. During this time the trees will look black and burnt. But in time and when the rains arrive the green leaves return.

The Argan tree grows most prolifically in the arid, salty soil near to the coast as well as in the low mountains. This is one reason that the Argan forests are only found within a narrow band of Morocco between the cities Essaouira and Agadir.



Much of the Argan forests grow on mountain slopes and in very arid regions. Here Argan trees help protect soil against water loss and soil erosion caused by wind and rain. In this way the Argan trees are valuable for maintaining soil fertility and slowing down desertification.

Some efforts have been made to grow Argan trees to recover desert regions.





Argan trees and the Argan forests are owned by communities or individual families. They come together around July to harvest the Argan fruits communally. The Berber people have produced Argan Oil in this way for thousands of years. There are mentions of Argan in ancient Phoenicia.

Unfortunately until recently the tree was not respected. It has been under threat from excessive human exploitation. Villagers took wood from the trees for heating and making charcoal. Shepards grazed goats and camels on the Argan tree leaves and fruits. This has continued for many years resulting in a deterioration in the quality of the forests.



To protect the tree, UNESCO declared the area in which the Argan tree grows a “biosphere reserve”. This reserve that covers a vast plain of more than 2,560,000 hectares, bordered by the High Atlas and Anti-Atlas Mountains and open to the Atlantic in the west. The trees currently cover an area of around 800,000 hectares.

Programs have also been put in place to help protect the trees from being used for grazing by goats and camels.





With so many cosmetic benefits for skin and hair Argan Oil is now becoming the **active ingredient of choice in many brand name cosmetic products**. In recent years production levels have been around just 700 tonnes.

To meet the ever growing demand for Argan Oil **new forests are now being planted** in secret locations the middle Atlas. To stabilise and increase production yields in these remote areas additional irrigation systems are also being installed to manage water supplies.

People in Morocco are not great followers of rules and regulations especially where they go against traditional farming practises that have been in place since before anyone can remember. So, to help protect the trees in more densely populate areas kilometres of fences are also being put in place to dissuade shepherds from grazing and the theft of wood for heating.

Fortunately the new international interest in the amazing health and cosmetic powers of Argan Oil has helped to create a new respect for the trees by the Berber communities. This is leading to healthier and expanding forests and in turn a boost in much needed boost for these remote rural communities.





©2015 ARGANOILDIRECT.COM

Foreign and commercial investors

Investors built factories that used modern cold-pressing machines in cities like Casablanca far away from the Berber Argan forests. This more modern cold-pressing machinery enabled them to produce more oil from the nuts, to speed up production process and produce a higher quality oil with a lower water content. The lower water content also meant an oil with a longer shelf life at a lower price.

The role of the women of the Berber communities was reduced to little more than a supplier of raw Argan nut kernels. Investors even tried to replace the role of the Berber Women who break open the ultra-hard Argan nut casing by hand with modern nut cracking machines.

However, the Argan nut casings proved to be so hard and brittle that the casing would shatter and fragments of the nut casing would become mixed with the extracted nut kernel.

By early 2006 there were an estimated 16 private pressing plants owned by foreign investors. Little of the profits from these Argan Oil producing companies found its way back into the communities.





The Berber Women's Cooperatives

Professor Zoubida Charrouf and the Formation of the Berber Women's Argan Oil Cooperatives
To help Berber communities compete with the foreign owned pressing plants a number of NGOs from Europe began to support the development of Berber women's cooperatives with funding for new mechanical presses and dedicated buildings where farmers could bring their Argan produce for processing.

Government and foreign agencies also paid the considerable costs of getting internationally recognised organic certification for the Argan forest and the oil produced.

Now families are able to taken their crop to one of the many Berber women's cooperatives where the process of cracking the nuts is done communally by large groups of women and the pressing of the oil done by a modern cold pressing machine.





Argan Oil expert Professor Zoubida Charrouf worked with the Argan Oil Cooperatives for many years. As a professor at Mohamed V. University in Morocco, she developed an interest in the Argan tree. Not only the use of its precious oil for skin care and for health but also with a passion for conservation of this natural resource.

When the project started, Morocco was losing more than 600 hectares of Argan forest each year. By teaching people the value of their trees the professor was able to develop a new found respect for their valuable forests.

Where once Argan tree wood would be stripped to produce charcoal and animals would graze the trees farmers are now beginning to plant new trees, fence off and protect valuable forest and take good care of the trees.

Projects were started that improved the extraction of oil by involvement of the Berber women in establishing oil producing cooperatives. By bringing a more business like approach to the Argan Oil cooperatives Professor Charrouf helped to boost both production levels and the quality of oil. The increased productivity allowed the women's cooperatives to compete on an international market and to keep up, and benefit from, the growing demand.





Not only did this bring much needed income to the cooperative and families of the region but at the same time it has emancipated the women by offering them a real, sustainable living wages. Cooperative members now earn around 75 Dirhams/\$8.60 a day(2013), an increase of more than ten times from when the projects started in 1997 and this is a real living wage. Literacy and numeracy programs as well as better access to health care have brought a new freedom, a higher standard of living.

As a cooperative member explains: “. “Being part of the women’s cooperative freed me from tedious domestic work in people’s homes,” said one co-operative member.

“Now I’m learning to read and write and I’ve learned how to ensure the quality of the Argan kernels. The cooperative has made me more independent. I’ve been able to visit other cooperatives in other provinces. I’ve seen how girls and women like me have been able to shape their own destiny and move ahead to develop their cooperatives.”

The Impact of Literacy Programs Funded by Argan Oil Production

In Morocco, even until very recently, it was not considered necessary for Berber girls to complete or even attend schooling. Tradition decreed that the destiny of girls was marriage. Increased literacy sponsored by cooperative system in Morocco allows the Berber women more power and independence.

Even older generations have been keen to take up the new opportunity to learn literacy and numeracy. Studies undertaken to compare the health of illiterate and literate Moroccan Berber women in Holland. In the control groups, which were compared for age, work and partners, it was found that literates people enjoyed significantly better health.





How Argan Oil is Made

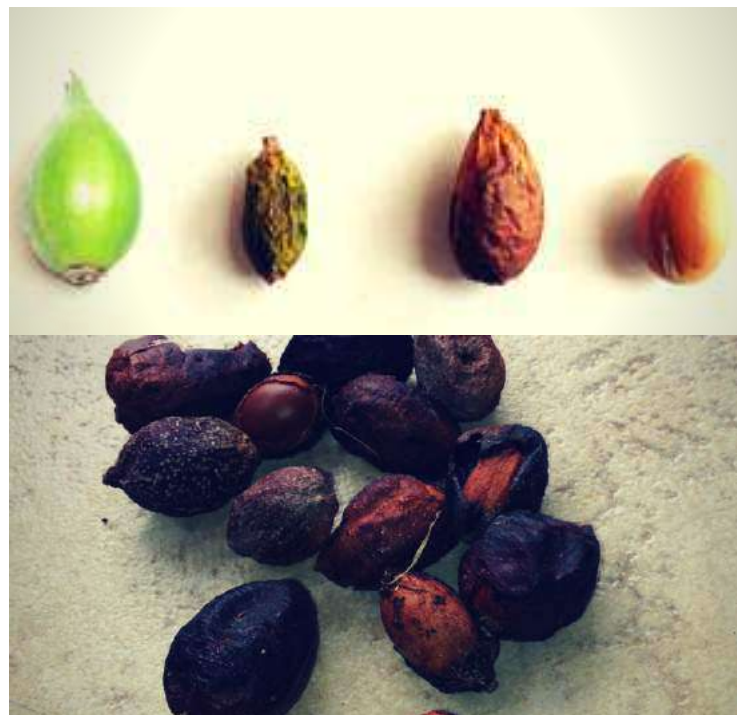
The traditional and modern oil extraction processes

Collecting and Processing the Argan Nuts

The Argan tree fruits ripen in June / July when they are a bright green colour. Families and communities come together to complete the long and arduous job getting the fruit off the trees with sticks and collecting them from the ground.

The bright green Argan tree fruits are gathered, left to dry to a dark brown husk which has a beautiful Argan smell. The husks are then stored in large sacks until they are needed.

When it is time to make some oil the dried husk is removed leaving the medium brown coloured ultra-hard nut shell to be stored ready for the next stage in the process - cracking.





A tough nut to crack

Despite attempts to automate the next stage in processing it was found that the brittle and hard Argan nuts would shatter when processed with machinery.

This meant resulted in the polluting the extracted Argan nut kernels with shards of nut casing.

For this reason the extraction of the oil rich nut kernels is still done in the traditional way. So, every drop of Argan Oil produced is pressed from Argan nut kernels that have been hand extracted by groups of Berber women in cooperatives, in Morocco using a stone.

The extracted nut kernels are now left to dry, stored in large sacks, until needed for pressing.





Traditional extraction techniques

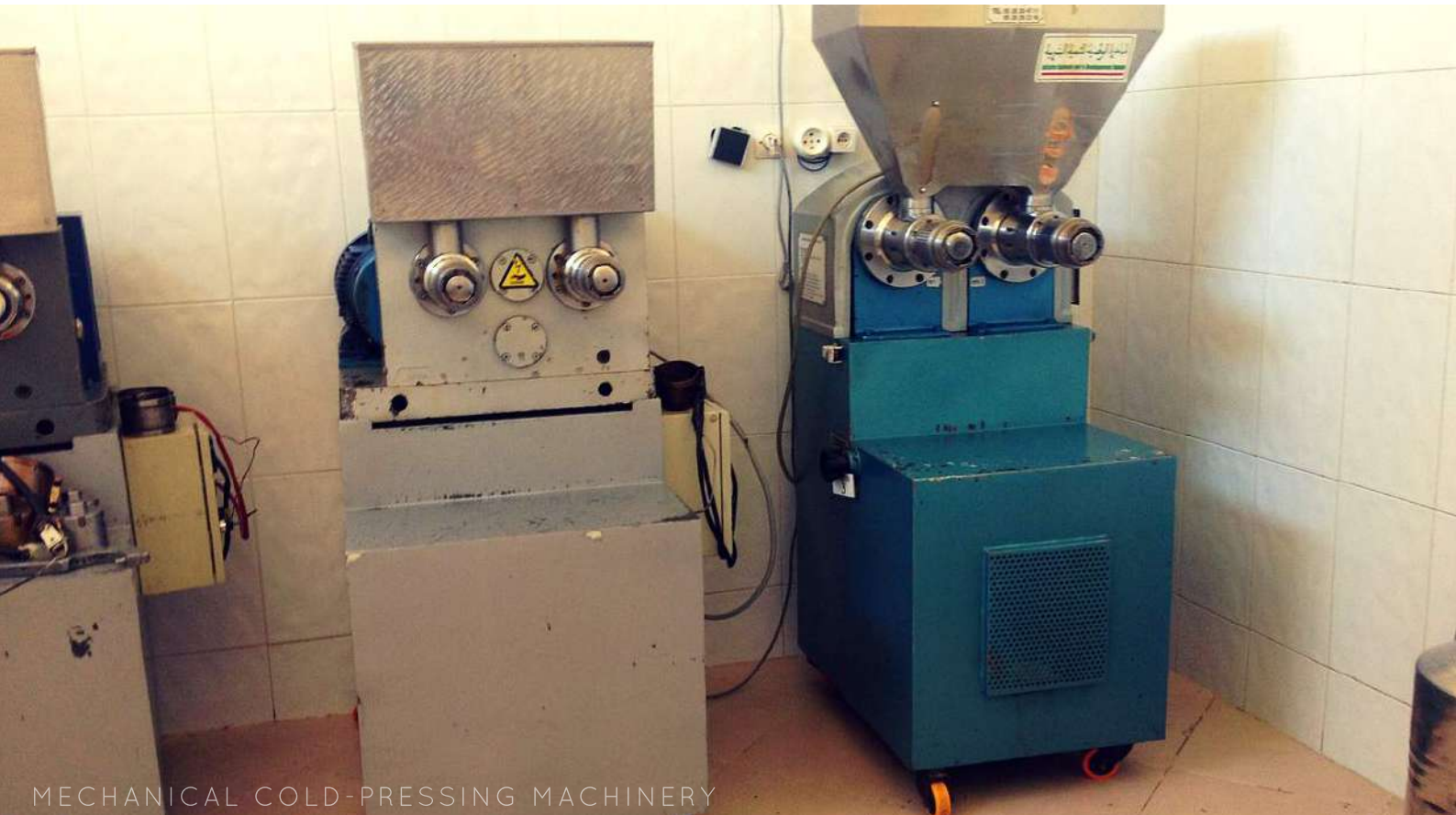
Before the introduction of mechanical **cold-pressing machines** the entire Argan Oil production process was done **by hand**, from start to finish.

First, the Argan nut kernels were first left to dry ready for processing. Next the kernels were put into a **traditional grind stone** and ground up with a **little water to produce a dough-like paste**. This paste was **squeezed by hand** to extract the oil.

The resulting oil had some **sediment** and quite a **strong Argan nut smell**. Because water was used in the extraction a certain amount of oil would remain in the oil. This water and the sediment meant that oil produced in this way would have a **shelf life of around 6 to 8 months**.

This was a very labour intensive process and would take about **1 person around 1 week to produce just 5 litres of oil**.





MECHANICAL COLD-PRESSING MACHINERY

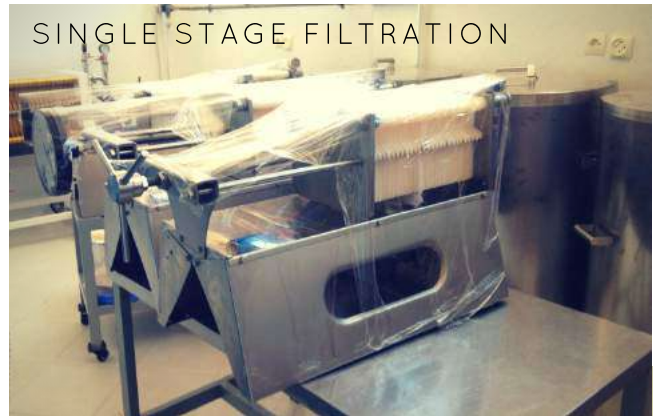
Mechanical cold-pressing extraction techniques

In the modern production process Argan nuts are still **collected by hand** and the dried nuts **cracked by hand**. The work is now done by small cooperatives under the control of the Berber women of the local communities.

The introduction of **cold-pressing machines** has transformed the extraction process, production yields and oil quality. This lower water content has meant that the oil has an improved shelf life and richer texture.

Production is also now backed by a **fair trade program** and the very expensive international **organic certification** has been made possible through government and foreign aid.

Mechanisation has increased **income** in the Berber communities by **ten fold in 12 years**.



SINGLE STAGE FILTRATION



MODERN STORAGE FACILITIES





The Different Types of Argan Oil

Cosmetic Argan for skin & hair

Culinary Argan for eating & nutritional supplement

There are two types Argan Oil. **Culinary Argan Oil** and **Cosmetic Argan Oil**.

Culinary Argan Oil is used for cooking and **eating or nutritional supplement**. It is **golden brown** in colour and has a **toasted nutty** smell.

Culinary Argan Oil is **rich in vitamins and nutrients** and may be of benefit in many health problems. Culinary argan is **not suitable for cosmetic use**.

Cosmetic Argan Oil is used for **anti aging skin care** and **hot oil hair repair & conditioning treatments**.





COSMETIC ARGAN OIL

THE PERFECT CHOICE FOR
NATURAL SKIN CARE
AND HAIR TREATMENTS



Cosmetic Argan Oil

The 3 grades of cosmetic Argan Oil

1. Single Filtered oil. This has a **medium yellow colour** and an **Argan nut scent** which is a natural olive/citrus smell. This is the grade of Argan Oil most commonly found for sale. This is the best choice for skin conditions such as Eczema.

2. Filtered with Active Carbon. A small amount of oil production in Morocco is doubled filtered using active carbon. This is an inert compound that removes sediment without affecting the oil. Carbon filtered oil has a lighter yellow colour and has a more perfumed, sweeter smell less like olive.

3. Double Filtered Oil. The purest grade of Argan Oil is filtered twice to remove all sediment. This oil has a pale yellow colour and almost no Argan nut fragrance. This is the best choice for hair care and facial skin treatments.





The uses and benefits of Cosmetic Argan Oil for Skin.

Pure Argan tree oil is naturally rich in vitamins that improve skin condition to protect against ageing and calm inflamed skin conditions such as Eczema and Psoriasis.

It is primarily used for skin care as:

- An anti ageing treatment, moisturise
- For management of skin problems like Eczema, Psoriasis.
- Dry skin.
- Healing minor scars from surgery or acne.
- Preventing and treating stretch marks.

Argan Oil is an excellent substitute for any commercial moisturiser but is also a very effective anti aging treatment. However, unlike commercial anti aging creams a little goes a long way so it is economical enough to use on all parts of the body.

This makes it the perfect natural product to use as an all over moisturiser for dry skin.





COSMETIC ARGAN OIL

THE PERFECT CHOICE FOR
NATURAL SKIN CARE

How to use Cosmetic Argan Oil for Skin.

There are many ways you can apply Argan Oil and it is very easy to use.

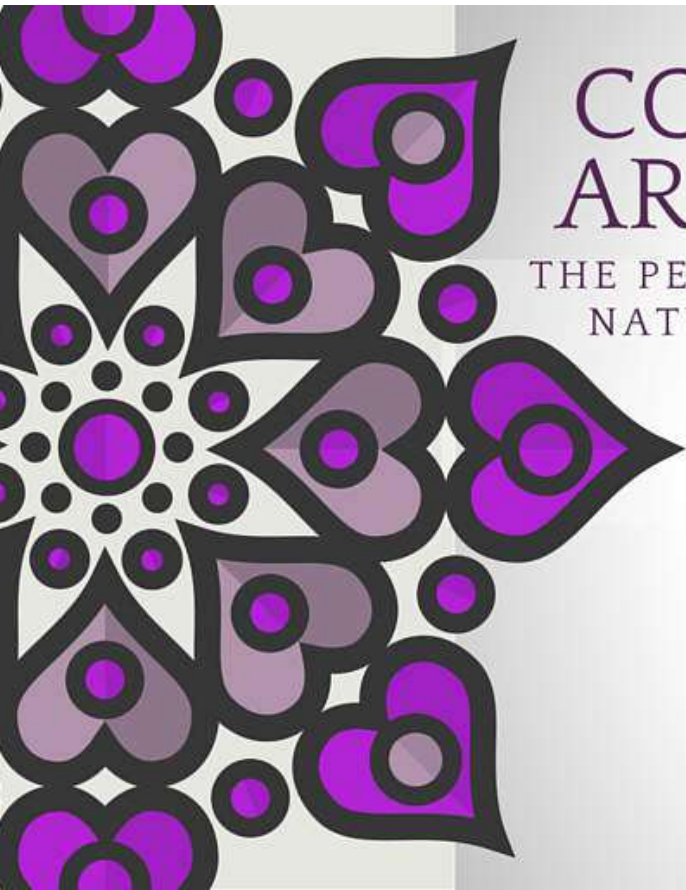
It can be used on dry or damp skin. For the facial area and neck a little Argan Oil tones and firms skin. When using Argan Oil on delicate areas, such as your face, first warm 2 or 3 drops in your clean hands. Next, gently massage into your skin with your fingertips using a circular motion. Continue massaging until there is little or no residue left on the skin.

For legs or hands, use more oil and apply with the palm of your hand massaging in until absorbed. For a more intense treatment in areas where lines or wrinkles appear you may wish to apply the Argan Oil a second time.

To reduce fine lines and wrinkles, blemishes, uneven skin tone and even minor scars apply pure Argan Oil regularly for about 6 weeks to see the results.

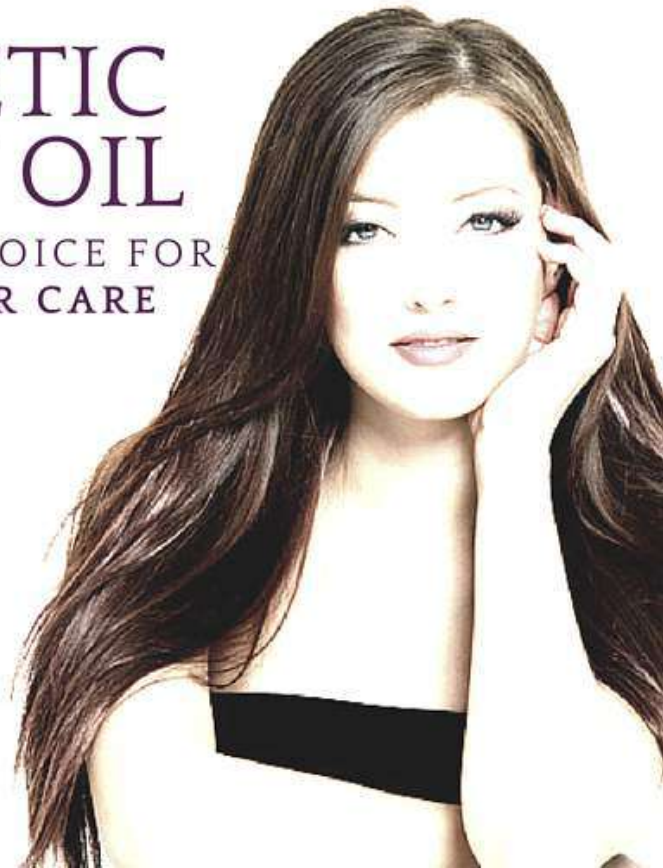
Argan Oil is ideal for use as an overnight skin treatment where it is left on overnight to work its magic while you sleep. With a lighter application it is also suitable for use as a day treatment. Try adding about 5ml to a bath and enjoy the luxurious therapeutic and intensive moisturising effect.





COSMETIC ARGAN OIL

THE PERFECT CHOICE FOR
NATURAL HAIR CARE



The uses and benefits of cosmetic Argan Oil for Hair.

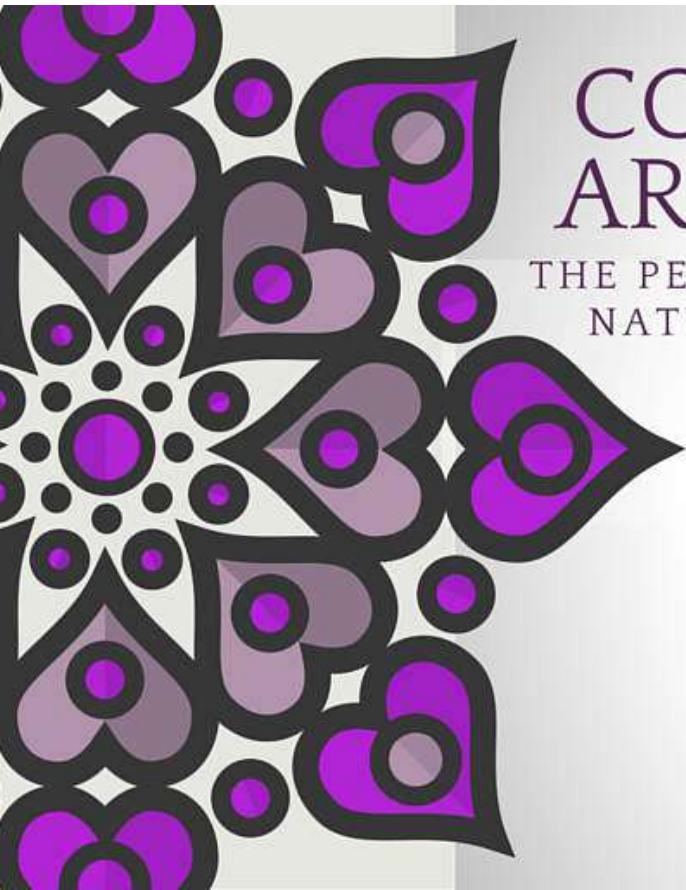
Moroccan Argan Oil is the most effective and natural hair repair treatment product you can use.

Tired hair damaged by colouring, heat, stripped of its natural health by destructive conditioners containing Keratin and Silicates or just tired from harsh weather all respond well to this pure and natural oil. Pure Argan Oil will get your frizz under control, repair, condition and restore your hair's natural beauty.

Argan Oil contains a wide range of bio-active nutrients and vitamins that help condition not just the hair shaft and roots but also the scalp. By taking care to treat from the roots and scalp to the tip of the hair can you encourage stronger growth, help reduce hair loss and restore a natural health and shine.

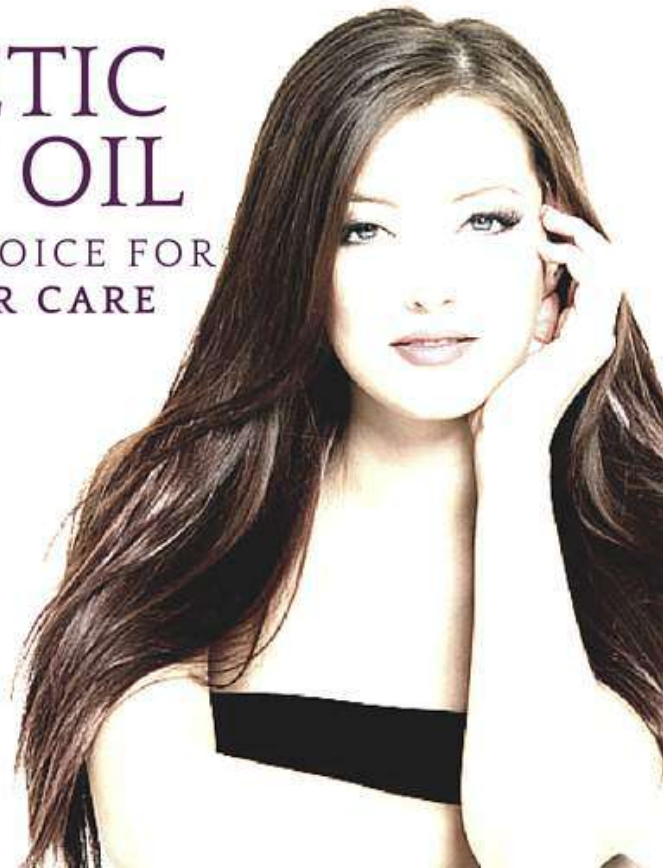
Argan Oil is a non comedogenic oil. A Comedogenic oil will clog-up pores and lead to follicles on the scalp becoming greasy and blocked which leads to flat hair and hair loss. Argan Oil is highly non-comedogenic and has the lowest comedogenic rating of 0.





COSMETIC ARGAN OIL

THE PERFECT CHOICE FOR
NATURAL HAIR CARE



How to use cosmetic Argan Oil for Hair.

Hot Oil hair treatments are wonderfully effective and easy to do. They do take some experimenting to find the best way to apply and amount of oil to use for your hair.

The **most common mistake** when using natural oils for the first time is **to use too much**. If you do find your hair heavy and oily then you can **simply lightly rinse** with a non conditioning shampoo. A hot oil treatment should be done **once a month or even weekly**.

If you have a **fine and light hair type** then it should be enough to simply clean your hair, put a **few drops** of the Argan Oil serum in the palms of your hand, rub them together to warm the oil then just massage into your hair and scalp with your fingertips or by working your fingers through your hair.

For **longer or thicker hair** you may need a **teaspoon of oil** which you work into your hair massaging in from the root along the hair shaft and into the tips with your fingers. Apply a little **extra oil to damaged hair tips**.

Hair can also be **naturally cleaned** by using **Rhassoul Clay** as a natural alternative to shampoo.





Culinary Argan Oil

Delicious, Healthy Toasted Argan Nut Oil

Culinary Argan Oil is an edible oil with a golden brown colour and is used for cooking, eating and as a nutritional supplement.

To produce authentic Moroccan Organic Culinary Argan Oil for food the Argan Oil nuts are lightly toasted before pressing. This gives the oil produced its golden brown colour, delicious nutty flavour making a pure Argan Oil that is suitable for eating.

You can cook with culinary Argan Oil but the toasting process makes edible Argan Oil unsuitable for cosmetic use. Moroccan Culinary Argan oil is bought not just to eat but is also traditionally used as a nutritional supplement for a range of health problems.





The health benefits of Culinary Argan Oil.

In Morocco we use pure culinary Argan Oil not just for eating but also for its health properties.

In Morocco (and in the many scientific studies undertaken) we take about 1 Tablespoon (15ml) of pure culinary oil which is taken as a supplement by spoon. This does is usually taken over a 6 week period in studies. It is after this period that the effects have been found to be detectable.

Argan Oil in capsules is now advertised on the internet however the problem with putting this oil into capsules is that you would need to take about 15 to 20 Capsules if you wanted to get any real health benefits & repeat dosage used in the studies that were undertaken. So, to get this dose so clearly taking pure oil is easier.



Culinary Argan Oil is rich in bio nutrients that give Argan Oil its properties. Culinary Argan Oil, like other nut oils, is used in Morocco for cholesterol reduction, cardiovascular disease treatment, Arthritis, BMI control and weight loss. Read details of Argan Oil studies by clicking here to read more on our web site.





Cooking with Culinary Argan Oil.

Toasted Argan nut Oil is used as a prized food oil eaten in Moroccan recipes. It is an ingredient blended into recipes and consumed for its flavour rather than being used for frying oil like Olive oil.

It can be added to biscuit dough and cakes recipes to add a nutty flavour when cooking food, salad dressings, as a dressing on pasta or even added to ice cream.

In Morocco the most popular way to enjoy Argan Oil is by eating it with bread. This is often served as an accompaniment to mint tea along with a plate of almonds, walnuts, honey and Olive oil for afternoon tea.

Get more **recipe ideas and suggestions** by downloading our **free Culinary Argan Oil Recipes eBook** on our web site.





The Chemistry of Argan Oil

What is in Argan Oil?

So what could be compounds might be contained within Argan Oil that could have the potential to bring such benefits?

Saponins

The Argan tree is rich in Saponins. More recently, Saponins have been proposed as protective agents against infective fungi and are linked to anti-cancer activity.

Sterols

Four sterol have been found in Argan oil. The two major are named spinasterol and schottenol both are reputed to have anti-cancer properties.

Tocopherols:(Vitamin E) & Anti-oxidants:

On of the most powerful Anti-oxidants is Tocopherol/ Vitamin E. Alpha tocopherol makes up 69% of the tocopherols found in Argan oil. Antioxidant flavonoids and Tocopherols found in Argan and cannot be synthesized by the body. These antioxidants are involved in many activities including: promoting good circulation and acting as a natural anti-inflammatory.





Anti Oxidant

Argan oil is about twice as rich in tocopherol as olive oil (620 mg/kg vs. 320mg/kg). The main tocopherol is by far alpha-tocopherol (69%) whose eutrophic activity of well known, beta and gamma-tocopherol are found in roughly equal proportions (16% and 13% respectively), deltatocopherol is a much minor component (2%).

Fatty Acids

Argan oil is rich in linoleic acid which increases the production of prostaglandins 1 and thus is beneficial for people with rheumatologic conditions and cardio vascular problems. It is active in the maintenance and repair of the membrane that encloses the cells.

Triterpene Alcohols

Triterpenoids are biologically active substances. The major constituents of the triterpenic fraction of Argan oil are tirucallol, beta amyryne, butyrospermol, and lupeol.

Triterpenoids are biologically active substances. The major constituents of the triterpenic fraction of Argan oil are tirucallol, beta amyryne, butyrospermol, and lupeol.

The effects they can produce include:

tirucallol (27.9%)--cicatrisation

beta amyryne (27.3%)--skin protection

butyrospermol (18%)--anti inflammatory

lupeol (7%)--antiseptic





THE WORLD'S HEALTHIEST OIL?

CULINARY ARGAN OIL



cholesterol
cardiovascular
disease
diabetes
arthritis

Free eBooks @ arganoildirect.com/argan-oil-capsulesResearch & References Online @
<http://arganoildirect.com/argan-oil-capsules>

Argan Oil for Health

Cholesterol & cardio-vascular disease

Culinary Argan nut oil is active in the maintenance and repair of the membrane that encloses the cells. Its high oleic acid content makes culinary Argan oil particularly interesting in the regulation of blood cholesterol

“In a recent study Hyperlipidemia was induced by high calorie and cholesterol (HCC) diet administration in 16 rats. Eight rats were treated with culinary Argan oil (1 ml/100 g weight) daily by oral route during 7 weeks (treated group).

After 7-week treatment with Argan oil, blood lipoproteins were significantly reduced. Total cholesterol decreased with 36.67% ($P < 0.01$), low density lipoprotein (LDL)-cholesterol in 67.70% ($P < 0.001$), triglycerides in 30.67% ($P < 0.05$) and body weight in 12.7% ($P < 0.05$). High density lipoprotein (HDL)-cholesterol concentration remained unaltered.

These results indicate the beneficial effect of edible Argan oil in the treatment of the hyperlipidemia and hypercholesterolemia. This effect will be related with the polyunsaturated fatty acids and other constituents of studied oil.”





Studies show that the phenolic nutrients within Argan Oil prevent low-density lipoprotein (LDL) cholesterol oxidation and enhances high-density lipoprotein (HDL) cholesterol levels. [1] [2] In other words, culinary Argan Oil reduces LDL, bad cholesterol and increases HDL, good cholesterol.

During a study, 60 participants were split between one group, who were given Argan Oil and the other who received Virgin Olive Oil. After three weeks it was found that good HDL cholesterol levels had increased significantly in participants of the Argan Oil group.[3] Furthermore levels of triglycerides in the bloodstream were reduced significantly. High level of triglycerides have been linked to cardiovascular problems such as atherosclerosis, the risk of heart disease and stroke. [4]

The impact of Argan Oil consumption to block the abnormal fatty deposit which develops within the walls of arteries has also been examined. In research, subjects were monitored for three weeks while taking a 25 ml daily dose of Argan Oil. [4] An increase in biological activity with beneficial effects on LDL production and an increase of anti oxidant vitamin E concentration was found.

It is the rich variety of natural polyphenols, vitamin E and plant sterols found in Argan Oil is thought to be the source of its power to counter the effects of atherosclerosis. [4] A study was conducted on 96 subjects, 62 of whom consumed – 15 ml of Argan Oil per day. Significantly lower LDL cholesterol and apo-B levels were observed in Argan Oil consumers compared to non-consumers. Lipoprotein(a) concentrations were also lower in the Argan Oil group. [5]

Arthritis

Rheumatoid Arthritis sufferers experience pain and damage to the joints, particularly in the hands. In its most severe forms it can even be life threatening causing damage to many organs, including the heart and liver.

Argan oil contains a wide range of nutrients with anti-inflammatory properties that are beneficial in for conditions such as rheumatoid arthritis. The high levels of linoleic acid are known to increases production of prostaglandins 1 which are of help in rheumatologic conditions.[1]

Argan Oil, like other oils for Arthritis such as Arnica and Eucalyptus, also contains triterpene alcohols. Triterpenoids are biologically active substances. The major triterpenic fractions of Argan oil include butyrospermol (18%) known for its anti-inflammatory action.[1] The eating form of Argan Oil is also traditionally prescribed as hepatoprotective agent in case of hypercholesterolemia or atherosclerosis, to reduce cholesterol & treat cardiovascular problems.

