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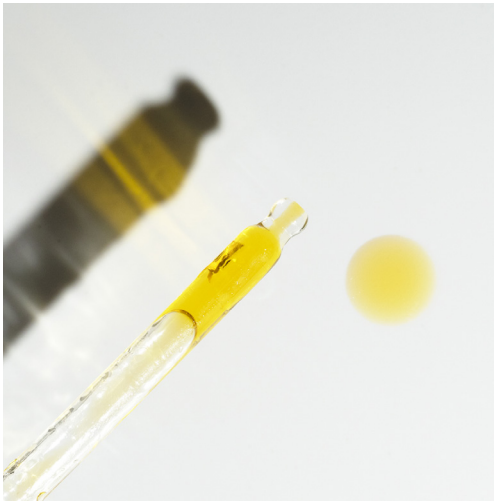
BEAUTY™

Chapter: Oils

Section 01 Oils



Oils, Really?

The use of oils on skin and hair has, quite literally, been used for centuries. Egyptian and Greek civilizations are believed to have experimented with the use of natural oils, such as olive oil, to enhance their appearance. This ancient use of oils is now experiencing a renaissance as today's consumers are wanting to explore the use of more time-honored, holistic ways of caring for their skin in order to enhance its health and appearance.

Today's consumers are highly conscious and concerned about what they put in, and on, their bodies. Hence, in an effort to avoid applying synthetic chemicals on their skin out of a concern for what, if any, health-related side effects their use might trigger, consumers are looking for more natural, organic, botanical alternatives that have been traditionally used throughout the world to more "naturally" care for their bodies. As a result, the use of natural oils for both treating and cleaning skin has recently come back into vogue.

Why Oils?

One of the most common misperceptions when it comes to using oils is that they moisturize the skin. If by "moisturize" one thinks of hydration which is the act of adding water/moisture to the skin, sadly such is not the case. In reality, rather than introducing water/moisture into the skin, oils help to retain water that's already present in the skin, thus inhibiting it from easily evaporating from the skin's surface. Think of oil as nature's saran wrap. Properly hydrated skin is critically important to its health and appearance. People with dry, compromised or sensitive skin typically suffer from a lack of adequate hydration. When dealing with such conditions, it's imperative to first rehydrate the skin and then apply a product to help seal the water therein to prevent it from prematurely escaping from its surface.

Our bodies naturally produce oils that help to seal moisture within the skin. Oils present in the top layer of skin serve as a barrier for the passage of water through the skin. Unfortunately, as we age our bodies tend to produce less oil resulting in enhanced water-loss and drier skin. Consistently dry skin, in turn, causes fine lines, wrinkles, itchiness/flakiness, breakouts and, in a worst-case scenario, eczema/dermatitis.

Oil Selection

Since skin requires oil to serve as a barrier against water loss so it can stay hydrated and healthy, coupled with the fact that a person's body may not produce a sufficient amount of oil on its own for various reasons, including aging, there is thus a need to supplement the body's production with externally-sourced botanical oils. The question then is which type of botanical oils should one use. The answer depends on their skin type.

Fixed oils, as opposed to essential oils, have historically been shown to be less allergenic, in general. This is primarily due to the fact that fixed oils such as rosehip oil, sweet almond oil and kiwi seed oil inherently contain fewer chemical compounds typically associated with causing allergic reactions. This is not to say that all essential oils, as a matter of course, cause allergic reactions and should be avoided. On the contrary, essential oils such as green mandarin and tea tree can be quite beneficial when dealing with certain types of skin conditions like dryness and breakouts. It's just that they require a greater degree of caution and vetting by consumers to reduce the risk that their particular skin type and/or skin condition may cause them to experience a problem. Since each person's skin has a unique genetic makeup, a bit of trial and error is at times required when determining which type of oil an individual's skin is most positively responding to.

In general, when it comes to facial oils, there is a preference for using those having a smaller molecular size. Oils with a larger molecular size tend to be heavier in terms of consistency and feel and possess a greater likelihood of clogging a user's pores. Moreover, if the molecular size of the oil is too large, it will have a greater difficulty penetrating through the skin's upper layer in order to effectively seal water within the skin. Conversely, an oil having a smaller molecular size, i.e., a lighter oil, will more easily penetrate the outer layer of the skin, thereby providing better water-sealing benefits within the skin, without necessarily clogging one's pores.

When deciding which type of oil to choose, consumers need to first know which skin type they have, i.e., oily, dry, combination or sensitive. For example, while coconut oil is considered to be a highly favored facial oil due to its being easily absorbed by the skin and having both antibacterial and antifungal properties, it does have a tendency to trigger acne breakouts for those with oily skin. Kiwi seed oil, because it's lighter and less greasy, might be a better option. This is why a consultation with a dermatologist who has evaluated your skin type and its issues, is oftentimes recommended.

For those with dry skin issues, use of a slightly heavier oil rich in omega-3 fatty acids might be preferred because of its ability to further enhance skin barrier function, seal in moisture and inhibit penetration of external irritants. Use of a humectant (an agent that draws water from ambient air) to first hydrate the skin is strongly advised. Once the skin has been rehydrated, application of oil will enable the water/moisture to be effectively sealed therein.

Skin that is naturally oily, on the other hand, benefits more from the use of lighter, less greasy oils. Examples include argan and rosehip oils. These types of oils are considered to be non-comedogenic, i.e., less likely to clog your pores. This is an important consideration for those with naturally oily skin as the build-up and hardening of oils on the skin can cause one's pores to become blocked with waxy build-up, leading to breakouts.

For those individuals with acne-prone, i.e., highly oily skin caused by overly active sebaceous glands, the process of choosing the right kind of facial oil is slightly more complicated. People typically experience acne breakouts because their skin naturally produces too much oil that can lead to blocked pores and acne formation. In an effort to address excessive oil production, people apply products on their skin to eliminate the oil, causing their skin to become overly dry which is the equivalent of substituting one skin problem for another. Preferred oils for dealing with acne-prone skin are lighter oils such as kiwi seed oil that help control sebum production.

As one might imagine, normal skin (not too dry, not too oily and not acne prone) is easier to manage. For those fortunate enough to have normal skin, use of an oil that is not too heavy but can still facilitate barrier protection by sealing moisture within the skin is ideal. An example is prickly pear oil which contains the antioxidant vitamin E that is effective at inhibiting the formation of fine lines, wrinkles and dark spots caused by environmental stressors such as sunlight and pollution.

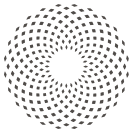
Finally, combination skin defined as having patches of skin that are overly dry, and patches that are overly oily, typically requires the use of a balancing oil which can act as a signal to the sebaceous glands that less or more oil is needed. Jojoba is a good choice in this case.

Oils as skin cleansers

Though it may seem counterintuitive, oils are quite effective at cleansing the skin. The use of facial oils for gently cleansing one's face is becoming increasingly popular. Conventional soaps not only remove dirt and grime from the skin's surface, but also the natural oils that seal moisture within the skin, as well as the good bacteria that reside on the surface of the skin. There are colonies of good and bad bacterial that reside on every person's skin. These colonies represent the skin's microbiome. So long as these two different colonies remain balanced, infections are unlikely to occur. A proper balance enables the good bacteria to help protect the skin from infection by maintaining the bad bacteria, which cause infections, in check. Once this balance is thrown off, such as when conventional soaps and facial cleansers are used, the bad bacterial have a greater chance of overwhelming the good bacteria, resulting in infection.

The theory behind using oils to cleanse the face is based on the scientific principle that fatty compounds can be used to dissolve similarly fatty compounds. Because facial oils are comprised of fatty compounds like omega fatty acids, they in turn are effective at dissolving other fatty compounds. Hence, when one washes their skin with cleansing oils, the fatty compounds in the oil help to dissolve and remove makeup, which inherently comprises one or more fatty ingredients, together with excess sebum that is naturally produced by the body and is typically responsible for clogging pores, also present on the skin.

When it comes to cleansing oils, aside from their ability to gently cleanse the skin, thereby reducing the risk of excessively drying out the skin and causing the body to produce even more oil, post-washing, cleansing oils also impart numerous ancillary benefits such as those mentioned above. More particularly, not only do they help promote a balance between the good and bad bacteria naturally present on the skin and help seal water within the skin, they also contain compounds that have antioxidant and anti-inflammatory properties. The antioxidant compounds help to eliminate free radicals on the skin caused by exposure to sunlight and pollution. The anti-inflammatory compounds help to calm and soothe the skin, thereby reducing irritation, which is especially important to those with dry, sensitive and compromised skin.



Not All Oils Are “Extracted” Equally

The method used for extracting oil from plants or seeds can affect its chemical makeup and, in turn, its beneficial properties. There are several oil extraction techniques in use today. These include steam distillation, solvent extraction, CO2 extraction, maceration, water distillation and cold-pressed extraction.

Steam distillation involves passing steam through plant material causing the oil to be vaporized from the plant, after which the vapor is condensed into a liquid form by mixing it with cold water. The mixture then separates, since water and oil do not mix, with the oil then being siphoned off.

Solvent extraction involves use of a solvent, such as ethanol, to isolate/draw the oil from the plant, after which the oil is then separated from the solvent via distillation and condensation, and then collected.

CO2 extraction involves the use of pressurized (liquid) CO2 acting as a solvent to extract the oil from the plant material. Once extracted into the liquid CO2, the pressure is then normalized causing the CO2 to revert back into a gas leaving behind the desired oil product.

Maceration involves the use of a carrier oil acting as a solvent. The plant material is chopped up into smaller pieces and then deposited into the carrier oil, at which time the desired plant oil is infused into the carrier oil. This process uses neither heat nor pressure, but rather time and gentle agitation to extract the desired oil from the plant material.

Cold-press extraction utilizes only pressure, at room temperature, to press/squeeze the oil from plant material. It represents the most “natural/clean” way of extracting oil.

Lastly, water distillation involves the use of heated water to extract oil from plant material. Once extracted, the oil is separated from water and collected.

All of the above-referenced methods are successful at extracting oil from plant material. However, all of the oil end-products are not necessarily equivalent. The use of heat has a tendency to alter the chemical makeup of an extracted oil’s constituents. For example, heat negatively impacts the antioxidant potency of an oil due to the chemical changes caused by its exposure to heat. Hence, any of the above-noted extraction methods that employ heat affect the potency of the extracted oil. Similarly, the use of chemical solvents like ethanol can result in trace amounts of the ethanol remaining in the extracted oil which also affects the oil’s purity and, hence, potency.

The reason heat and/or chemical solvents are employed is to speed up the extraction process and/or to increase the amount of oil being extracted, both of which affect the price of the extracted oil, making it less costly. This being said, the extraction method that yields the purest, most natural and, hence, most potent oil is cold-press extraction. Because this process avoids the use of both heat and chemical solvents, the oil it generates is of the type mother nature intended with all its nutrients and beneficial properties left intact. However, since cold-pressed oils are more costly to source, thus increasing a product’s cost of goods, a company must decide whether to focus on the quality of its products or the profit margins they generate.

In summary, the use of facial oils to both treat and cleanse skin is beneficial to everyone, regardless of skin type and/or condition. We just need to make sure that the oils we apply on our skin are appropriate for our particular skin type, keeping in mind that a bit of trial and error in the selection process may be needed. Lastly, because facial oil products contain no water, they do not require preservation since microorganisms need water in which to grow, thereby eliminating a potential source of allergenicity which is especially important to those with sensitive and/or compromised skin.

Citations

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