

BEYOND the DROP

Carrier Oils in Aromatherapy

carrier oil safety

large molecules, PUFA, seed oils, infused oils,
and internet myths

Lesson #16



carrier oil safety

Carrier oils are generally safe for use on the skin at any percentage, including 100%.

As we learned in earlier lessons, they are large molecules, called triglycerides, that are compatible with the lipid matrix of our skin, deliver fatty acids to the skin's barrier, and are not intended to penetrate the skin deeply.

Chemically, lipid oils are very different from the volatile aromatic essential oils.

Given the small, volatile nature of essential oils, which can penetrate the skin, carrier oils provide a safe way to apply them topically.



barrier protection

As we covered in the lesson on the skin, the stratum corneum serves as the skin's barrier, or skin barrier function, with distinct protective and reparative functions.

Bypassing the skin's barrier, attempting to penetrate deeper into its layers or even into the body, is to miss the importance of a fully functioning skin barrier in protecting the body as a whole.

Our outer skin barrier is intelligent and functions like a conductor directing the repair and interior processes deeply within the body.

In its wisdom, it has mechanisms to recognize past microbial invasions, undertake repairs to halt water loss, and signal the collagen layer to rebuild.



barrier function

We are not smarter than our skin.

It was common years ago in skincare education to recommend removing the outer layers of the skin so that the active skincare ingredients could be closer to the perceived need.

The triglycerides are why we use carrier oils as buffers for the very volatile essential oils used on the skin.

The carriers serve as supporting and delivery ingredients to create therapeutic skincare products in tandem with the essential oils.

Individuals may be sensitive to specific oils or botanical families, but in general, there are no usage percentages required for safe use.



personal sensitivities

Individual sensitivities can be severe, and we want to avoid harm.

Nut and latex allergies, as well as soy products and other natural irritants, affect a broad range of people; the related oils should be restricted as well.

Nut allergies are often specific to the type of nut, with peanuts being a common and severe allergy. The allergy may affect people sensitive to almonds, but others can tolerate apricot kernel oil if not almond oil.

Latex allergies are associated with shea butter and related latex-producing plants.

Soy products and oils can also cause difficulties for some individuals, so much so that vitamin E from a soy source can also be problematic. There are vitamin E extracts from sunflower oil for these conditions.

For highly sensitive people, go slowly when starting a new oil or a group of oils and test before using too much.



infused oil safety

Are infused oils safe? And do they need to be diluted?

Two questions that have come up need clarity: the answers are yes and no.

Infused oils are carrier oils that have had plants, herbs, or flowers macerated in the oils to extract the beneficial plant compounds.

They have all the benefits of larger triglyceride molecules that do not penetrate the skin, so yes, they are no more harmful than a good fresh carrier oil.

However, individuals may be sensitive to the oil, the plant, or other specific components, which may cause harm to sensitive individuals.

There are no general dilution requirements or issues, except for personal responses.



supplier suggestions

Suppliers can suggest the optimal percentage of an ingredient on their websites, indicating a smaller percentage for use.

When applied to carrier oils, this is not for safety reasons, but rather other considerations, such as color, which can be significant.

The very red oils — buriti, tucuma, and sea buckthorn —full-strength will make for very orange skin and require dilution to create wearable products that don't color the skin.

The intense color from concentrated beta-carotene can be very effective in small doses, where full-strength would be akin to a Halloween-like presentation.

Cost can also be a consideration for a reduced ingredient percentage, where the oil is so rich in beneficial compounds that it remains beneficial even at a lower rate.

Prickly pear seed oil



internet content

The internet increasingly plays a vital role in our lives and in how we access information and knowledge.

The days of massive encyclopedias where all content is vetted and checked are no longer realistic, as anyone can make claims, true or not, about a subject.

I've even found AI, artificial intelligence, queries to gloss over details and even make stuff up unless the question is specific and detailed, demonstrating knowledge about a subject. Only then does it provide clarification.

Internet myths can spread inaccurate or incomplete information around the world in the blink of an eye.

The internet, we cannot do without, but we also have to use our own intelligence to access the truths we are after.



problems with PUFA

PUFA has become a catchphrase acronym for a misunderstanding of the roles the various fatty acids and the oils containing them play in our lives.

The problem is a misunderstanding of the nature of the subject, not the PUFA, as some would have you believe.

PUFA, the acronym for polyunsaturated fatty acids, refers to linoleic acid, gamma-linolenic acid, and related fatty acids, and is now often paired with the word toxic.

PUFA includes the essential fatty acids, so the problem is either contrived or a lack of understanding of the subject.

Yes, polyunsaturated fatty acids require special care and handling because they are susceptible to oxidation, but this does not mean they are harmful.

Oxidized and rancid oils, high in linoleic acid, are not healthful, which is why emphasis is on good handling and storage practices.

Field of rapeseed in bloom,
a source of PUFA



Freshness, especially with polyunsaturated oils, is vital, as they provide essential nutrients beneficial to our health.

The key is to use them only for non-heat food preparation and to store them properly, using them up and replacing them promptly.

Because they don't understand the basic chemistry of fatty acids, people fear oxidized oils and avoid them altogether.

All fatty acids take time to oxidize, even delicate ones, and, barring extreme heat, will typically take months to oxidize and turn rancid.

Avoiding all PUFA is not possible, as I have never seen a fatty acid profile without some percentage of PUFA in an oil, even in the animal fats of tallow and ghee, however small.

quality first



An offshoot of the PUFA controversy is the claim that “*seed oils* can kill you!” or that they are toxic, implying imminent harm to the body.

With plant oils forming in the seeds of each lipid-bearing plant, this claim is even more misguided than the arguments against PUFA.

The claims come from the fact that many of the commodity oils —soy, rapeseed (canola), sunflower seed, and corn —are traditionally high in PUFA (polyunsaturated fatty acids). So *seed oils* = *PUFA*.

Commodity oils are industrially produced, solvent-extracted, heated to high temperatures, and have lost most of their nutritional properties, while developing harmful oxidized compounds.

The argument should be against how the plants are grown and the resulting oils are processed, not against all seed oils.

Commodity produced soybean oil

and seed oils too?



lipid history in the US

In the 1950s, the popular understanding of oils and fats promoted was the idea that they were harmful to our health, particularly saturated fats.

We gave up butter for margarine, and whole eggs for egg whites.

Fats were assigned much of the responsibility for the poor health in the US, causing heart disease and other life-threatening conditions.

Over time, this probably led to the overuse of *seed oils*, as they were not saturated and associated with the health problems of the day.

Not understanding that PUFA and saturated fatty acids are not interchangeable leads to even more health issues.

Switching saturated fats for polyunsaturated oils, especially for high-heat cooking, was not a good idea. Just remember our lesson on oxygen, oxidation, and paint!

Unfortunately, some took this to mean that all fats, oils, and lipids are toxic and harmful, when they are necessary nutrients for our bodies.



no harm done

When **PUFA** and *seed oils* are used interchangeably as pejoratives, it implies that oils are harmful to our health.

Except that all plant oils come from some reproductive seed, and the presence of a seed in the name of an oil does not make PUFA dominant in the oil. Camellia seed oil is dominated by monounsaturated oleic acid.

What this encourages is that all such oils are deemed harmful and to be avoided at all costs, even in skin care and shampoos.

Whole swaths of oils become off-limits and untouchable by people who don't understand oils or the nature of fatty acids.

And like in other areas, once someone is convinced that *seed oils* are toxic, it can be challenging to enlighten them on the subject.

Bad information on wholesome ingredients limits their benefits and ability to help maintain health.



is olive oil a problem?

Another internet claim about oils is that oleic acid, sometimes also olive oil, is a skin disrupter and is not suitable for the skin.

This one repeats in posts and studies, but without an originating research study to support it.

The studies that perpetuated the claim used the free oleic acid, FFA, free fatty acids, as a lone separated oleic acid, not in its natural form as a triglyceride.

Go back to our skin lesson and the importance of the large triglyceride molecules, which protect the skin barrier function.

Free fatty acids are not the same as olive oil, yet misunderstandings persist, and another form of oil is abused.

My take on the subject is its lack of historical accuracy: olive oil has played a dominant role in the Mediterranean region for thousands of years, nurturing ancient cultures, where it is a gift from the divine.



We'll end this introduction to carrier oils on this note: that the oils of all kinds are gifts from nature, the divine, providing us with an environment to grow and thrive.

The beauty of the complementary and contrasting qualities of aromatic essential oils and lipid carrier oils is the richness we have to work with to treat, heal, and maintain our health.

Lucky us, as we need to support nature and her ability to continue providing an environment for our well-being and the ingredients to further our work.

Thank you for joining me!





Rosehip

Raspberry

Blackberry

Strawberry

Thanks for joining me!

Lemon

Apricot

Peach

Plum

Susan M Parker

