dōTERRA® eBOOK

Essential Oils for Beginners

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CHAPTER 1 What are essential oils?

A variety of plants cover the Earth in different shapes, sizes, colors, and scents. Each of these plants contains compounds that typically can't be seen with the naked eye—they hide within the roots, flowers, seeds, bark, or other areas of the plant. These compounds are known as essential oils. They are highly concentrated, making them extremely potent. Also referred to as volatile aromatic compounds, essential oils give a plant its aroma, protect it from harsh environmental conditions and insects, and even play a part in plant pollination.

The science behind essential oils

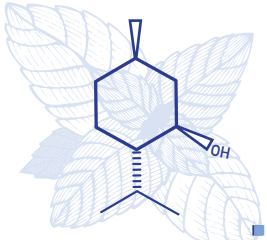
When you hear the word "volatile," you may think it holds a negative connotation; however, in the case of essential oils, volatility refers to a substance's ability to change its state quickly. The chemical makeup of volatile aromatic compounds in essential oils allow them to disperse quickly through the air. This is why you can instantly smell the potent aroma of an essential oil from the moment you open the bottle—even from a distance.

As volatile aromatic compounds move quickly through the air, the essential oil user will experience the scent when the compounds interact directly with the brain's olfactory sensors. (You'll learn more about how essential oils interact with the brain in chapters two and three).

With over 3,000 types of volatile aromatic compounds discovered so far, it is important to note that these compounds greatly determine the benefit, aroma, and nature of each essential oil. Because of unique chemical makeup, each essential oil will vary from species to species, and even from plant to plant.

Volatile Aromatic Compounds:

Tiny, organic molecules that are known to quickly transform from their liquid or solid state into a gas when they reach room temperature.



Peppermint
Mentha piperita

As we inhale the distinct aroma of an essential oil, the scent is processed through the olfactory system in the brain. The brain's olfactory system is responsible for controlling the sense of smell.

Essential oil use throughout history

While some view essential oils as a new trend, the use of plant extracts and plant-based products is deeply rooted in traditions of the past. Ancient civilizations used plants for things like aromatherapy, personal care, health care practices, religious ceremonies, beauty treatments, and food preparation. The infographic below shows that essential oil use is not a fad, but rather a long-time tradition started centuries ago in civilizations all over the world.

Egypt: Egyptians used plant-based products in beauty treatments, food preparations, burial rituals, and religious ceremonies.

Greece: In ancient Greece, men like Homer and Hippocrates explored the aromatic uses of plants, building on discoveries made by early Egyptians.

Rome: Ancient Romans often used plant extracts for massage, perfume, and scented baths.

Iran: In medieval times, people in the region of Iran often used and traded spices or resins for perfumery and maintaining health.

India: Ayurvedic medicine, a holistic healing system native to India, has developed over the span of 5,000 years and includes the use of aromatic and plant compounds.

China: For centuries, traditional Chinese practices have included the use of plant materials to promote wellness.

France: Rene Gattefosse, a French chemist, is credited as the first to coin the phrase "aromatherapy" as he studied and researched essential oils thoroughly in the 19th century.

Personal Care and Beauty Treatments

Aromatherapy

Food Preperation

Healthcare Practices

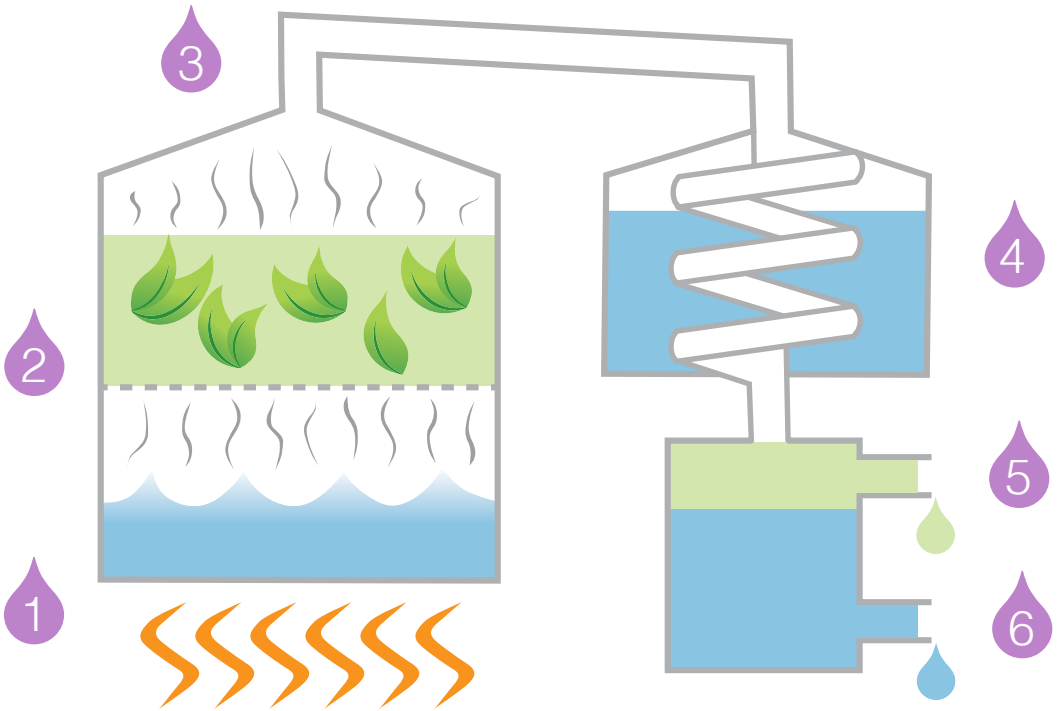
How are essential oils produced?

Now you know that essential oils are derived from plants, but you may be wondering, “How does it work?” While there are several methods for producing essential oils, dōTERRA® focuses on steam distillation and expression in order to produce high quality oils. Both of these processes are organic, and allow the aromatic compounds to retain their potent, powerful aroma.

It is important to remember that not all essential oils are created equal. The purity of an oil can change depending on geographic location, distillation methods, weather, and other factors. Additionally, no matter how well a plant is selected, cared for, and harvested, the quality of an essential oil can either be preserved or destroyed during the distillation process. Because of the attention to detail and precision necessary in distillation, it is often less of a process and more of an art form. Distillers must be precise and pay careful attention to harvesting, temperatures, time of distillation, the amount of pressure used, etc. To learn more about how a plant part becomes an essential oil, read about steam distillation and expression below.

Steam distillation

As you may have guessed, the process of steam distillation uses heated steam (as well as pressure) to extract essential oils from their plant parts. Because this method produces clean, pure essential oils, it is the most commonly used process for producing essential oils. The pressurization used during steam distillation protects the complex chemical compounds of essential oils, because it allows the oil to be distilled at temperatures well below the normal boiling point.

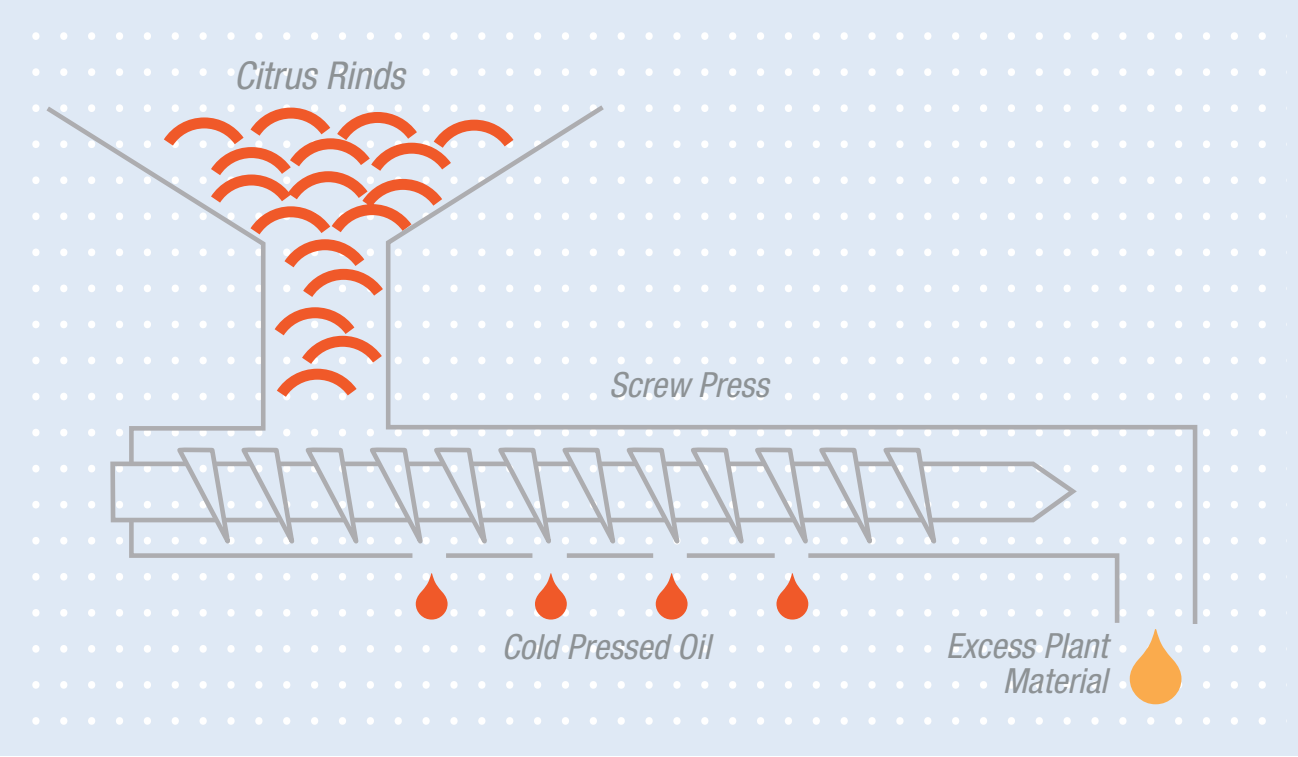


Steam Distillation

(1) Water is heated creating steam. (2) The steam passes through the plant material pulling out the oil. (3) The oil rises with the steam. (4) The steam is cooled in a condenser. (5) The oil rises to the top of the water and is extracted. (6) The floral water is collected for use in home and beauty products.

The chemical profiles within the oil would be damaged or destroyed with other processes that use higher temperatures.

Steam distillation begins with boiling water, which results in steam that passes through the plant material. As the steam passes through the plant part, the heat and pressure release the essential oil from microscopic protective sacs within the plant. The steam then carries the volatile aromatic compounds that were released from the plant into a collecting tube. Here, the steam cools and is condensed back into water, yielding a layer of oil. The layer of essential oil rises to the top, where it is separated from the water and collected. Since essential oils are lipid soluble, it is easy to separate them from water.



Expression

Unlike the process of steam distillation, expression (often called “cold pressed”) doesn’t use heat to extract the essential oil. Typically, this process is used to extract essential oils from the peels of citrus fruits like grapefruit, lemon, lime, orange, and bergamot.

During expression, the rind of the fruit passes across grated cylinders that grind the peel’s surface, breaking open tiny sacs that contain essential oil. After the essential oil sacs are opened, the fruit is sprayed with water in order to collect the essential oil after it is released. This watery mixture then goes through a filtering process to get rid of any excess peel pieces, and centrifuged to separate the water from the oil.

When you understand what essential oils are, where they come from, and that they’ve been used safely for centuries, it is easy to see that they are not an unexplained mystery, but a practical tool to be used in everyday life. If you are still wondering how essential oils might be applicable to your lifestyle, keep reading to learn about the uses and benefits they hold for individuals of all walks of life.

CHAPTER 2 Why use essential oils?

While essential oils and plant extracts have been used for centuries, essential oils still hold relevant applications today. With advancing technology, improved quality, potency, and safety, essential oils are now more accessible and easy to use in everyday life. Although essential oils were often used as a part of cultural practices and traditions of the past, we now have increasing scientific evidence and research to show the effectiveness and safe nature of essential oils in our day and age. Historically, essential oil usage was both popular and practical, but we now have resources and research that make essential oils useful in daily life, for a variety of people.

Essential oil everyday use

Each individual has their own set of needs and preferences. Luckily, essential oils are versatile enough to provide a wide range of benefits for anyone who uses them. Some think they need professional training in order to use essential oils, but with a basic understanding of how essential oils work, it is easy to include them in your everyday routine.

If you are wondering, "Do I really have use for essential oils in my normal, everyday life?" answer the questions below to see how essential oils might fit into your daily routine:

Q: Do you worry about using household cleaners that may expose your children to harsh chemicals or toxins?
Q: Do you ever look for ways to strengthen damaged hair or a distressed scalp?
Q: Are you ever in need of products to keep your skin feeling and looking healthy and young?
Q: Do you ever experience occasional digestive discomfort?
Q: Do you ever experience discomfort associated with occasional tension in the neck or head?
Q: Do you suffer from discomfort associated with seasonal and environmental threats?
Q: Are you ever in need of products to help support a healthy immune system?
Q: Do you enjoy adding powerful and natural flavors to your entrees, beverages, or desserts?

If you answered "yes" to any of these questions, you might have more use for essential oils in your life than you think. While some view essential oils as mysterious or complicated, they can be used for household cleaning, cooking and baking, improving well-being, and more. Along with the applications for everyday life, many enjoy essential oils because of their health benefits, as well as their positive effects on emotions.

Using essential oils for health benefits

In ancient times, people used essential oils and plant parts to improve their health and well-being. Because essential oils can be used to soothe occasional skin irritations, promote healthy digestion, support good oral health, create feelings of clear airways*, and more, they have long been a popular choice for those who want to maintain good health.

As mentioned, essential oils offer a variety of benefits, and each individual experiences essential oil use in their own way. Fortunately, the diversity of essential oils makes them a helpful way to maintain health, even for those who have specific health concerns, seek diverse health benefits, or experience sensitivity. Using essential oils for health benefits has become popular because it allows the user to tailor the experience to their specific wants and needs, rather than settling for a generic solution.

The emotional benefits of essential oils

With unique chemical structures, each essential oil holds a variety of benefits for the user. Some essential oils hold soothing, toning, and grounding properties, while others are known as energizing, uplifting, warming, or renewing. As our bodies go through an array of emotions and physical states throughout a single day, essential oils can help us manage and maintain well-being.

The chemical design of an essential oil gives it specific benefits. Some essential oils are helpful for cleansing or purifying, while others provide a soothing sensation to the skin. The aroma of essential oils can also create a chemical reaction in the brain, eliciting emotions and internal responses.

When you inhale a deep breath of an essential oil from the bottle, the oil's scent is processed in the olfactory system of the brain through the olfactory nerve. As discussed earlier, the olfactory system is the part of the brain that is in charge of controlling your sense of smell. The olfactory system connects to the limbic system of the brain where your emotions

Our sense of smell can produce powerful, mental, physiologic, and emotional responses.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

and memories live. As you breathe in the scent of an essential oil, the limbic system creates a response in your brain based on your memories associated with that particular aroma. Many times, the responses triggered by your limbic system can be emotional responses that are calming or uplifting, depending on the unique chemical structure of the oil. More importantly, because responses in the limbic system are based on memory, each person experiences each essential oil a little bit differently.

Take a look at this oil properties wheel to see how specific essential oils can elicit a desired benefit, based on their chemical structure:

CHAPTER 3 How do I use essential oils?

Now that you know what an essential oil is and where essential oils come from, it is time to learn how to use them. Once again, you don't need to be an expert to enjoy the wide benefits that essential oils hold. All you need is a basic understanding of how to safely and simply use essential oils during your daily routine.

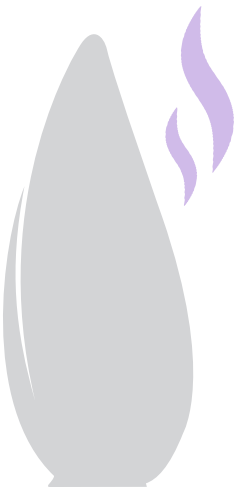
Aromatic

One way to experience the benefits of essential oils is aromatically, or by breathing them in. Using essential oils aromatically can offer many benefits; however, it can be particularly helpful for improving or managing mood. Depending on the chemical structure of an essential oil, it may provide invigorating or uplifting effects, or it might produce calming or soothing feelings.

Studies have shown convincing evidence that simply inhaling the aroma of an essential oil is effective for calming nervous or anxious feelings in a variety of settings.

Diffusion

Diffusion is the most effective way to enjoy essential oils aromatically and is most efficiently accomplished by using an essential oil diffuser. Essential oil diffusers take a whole oil and transform it into a mist, or microscopic droplets, that allow the user to experience the aroma of the essential oil for an extended period of time.



It is important to remember that essential oils have a delicate chemical structure, so you never want to use a diffuser that could alter the chemical profile of the oil by using heat. It is best to stick with diffusers that use water or cold air to diffuse the oil.

While diffusers make it easy to use essential oils aromatically, you can also reap the aromatic benefits of an essential oil without a special diffusing device. Simply inhaling an essential oil straight from the bottle, or placing a drop in your hands, rubbing the palms together, and inhaling the scent will allow you to yield the benefits of essential oils through the air.

Effective methods for aromatic application

1. Spritz essential oils on clothing for a long-lasting, pleasant scent
2. Place a drop of oil in your hand, rub the palms together, cup the hands over your nose, and inhale
3. Drip two to three drops of oil on the floor during a hot shower (keeping oil away from the water path), and breathe in
4. Mix oil with water in a spray bottle and mist over carpet, furniture, or other linens in the home
5. Apply oil to a cotton ball and place in the air vents of your vehicle
6. Add a drop of oil to a dryer sheet to give a batch of laundry a clean, fresh scent

Safety Tip: Typically, aromatic use of essential oils is considered very safe and tends to be well tolerated by most individuals. However, as with any application method for essential oils, it is important to consider doses and appropriate use. For maximum benefits, diffusion should be used multiple times throughout the day, in small doses.

Topical Use

Applying essential oils topically is a safe, effective way to yield the benefits that essential oils hold for the skin and other aspects of the human body. Due to their chemical makeup, essential oils can easily penetrate the skin and offer a localized benefit to the applied area. Essential oils are easily absorbed into the skin; however, you can prolong the benefits of an essential oil by using a carrier oil to slow down the evaporation of the oil, allowing it to moisturize the skin.

What is a carrier oil? Carrier oils are lipid-based substances that can be used to dilute essential oils. The carrier oil will literally help to 'carry' your essential oil to the desired area. Using a carrier oil like Fractionated Coconut Oil allows you to effectively apply an essential oil topically without altering the potency of the oil. When you dilute an essential oil, it enhances absorption by increasing the surface area of absorption, and helps prevent skin sensitivities.

Remember, deciding when and how to dilute your essential oils is a personal decision that should be based on the oil's chemistry, your usage preferences, and any personal sensitivity to certain oils.

Skin sensitivity and dilution

If you have particularly sensitive skin, or when applying essential oils on children, it is a good idea to use a carrier oil like Fractionated Coconut Oil. By diluting the essential oil with a carrier oil, you can avoid the development of a skin sensitivity, especially when you are trying a new oil for the first time.

The recommended ratio for dilution is typically three drops of carrier oil for every single drop of essential oil. As mentioned, the dose for applying essential oils topically will vary depending on the individual and their needs, age, size, and overall health status. When you are first starting out, try a few small doses throughout the day instead of a single large dose all at once. Start with a small dose (one to two drops.) This dose can be repeated every four to six hours as necessary.

Some essential oils should always be diluted when used topically. Always follow usage suggestions for oils like Cinnamon, Geranium, Lemongrass, and Oregano, as they should always be diluted before topical use. Recommended dilution ratio: 3 drops of carrier oil to 1 drop of essential oil.

How to apply essential oils topically

Beneficial Areas to Include:

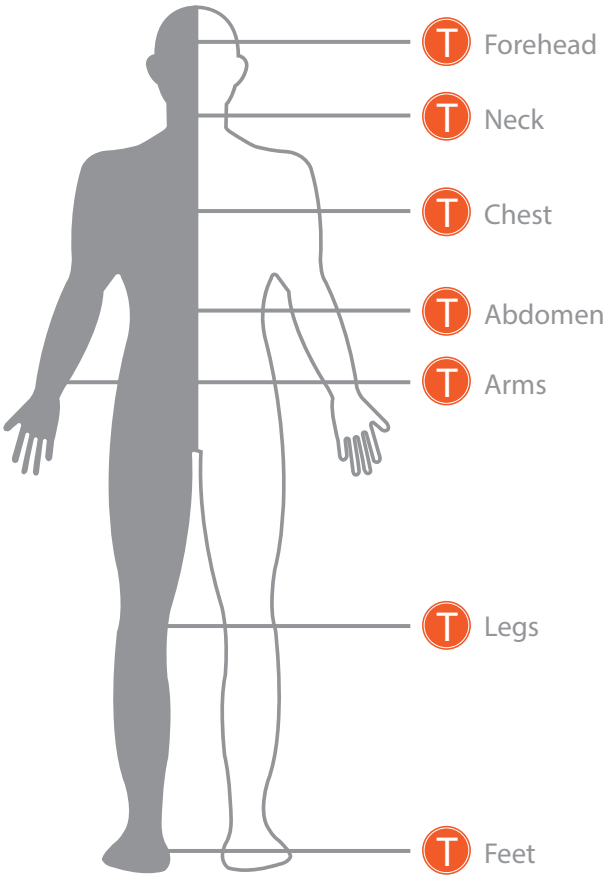
- *Neck*
- *Forehead and temples*
- *Chest and abdomen*
- *Arms, legs, bottom of feet*

Sensitive Areas to be Avoided:

- *Certain facial areas, like the skin around the eyes*
- *Inner ears and eyes*
- *Broken, damaged, or injured skin*

Other Effective Methods of Topical Application:

- *Place a few drops of oil in a warm bath*
- *Make a hot or cold compress by soaking a cloth in water, adding two drops of essential oil, and then apply to the desired area*
- *Mix a few drops of essential oil with lotion or a daily moisturizer and apply to the skin*



Internal Use

Though internal use has been greatly debated in the essential oil community for years, research continues to confirm the safety of internal application and validate its many uses. It turns out, essential oils are most likely already a big part of your daily diet. A large portion of the plants that we consume throughout the course of a day produce small amounts of essential oil.

How internal usage works

When you ingest an essential oil, it directly enters your blood stream through your gastrointestinal tract, where it is then transported throughout the rest of your body. As mentioned before, essential oils are lipid soluble, allowing them to be easily transported to all of your organs—including the brain. Just like everything else we

consume, an essential oil can be metabolized by organs like the liver and then excreted. While using essential oils internally is perhaps one of the most potent methods, our bodies are quite accustomed to and well equipped for metabolizing essential oils when given in a proper dosage.

Toxicity

As with anything we consume, it is always important to ensure that essential oils are used in appropriate doses in order to avoid toxicity. Toxicity refers to the point at which a substance becomes harmful or damaging to the body. Remember, seemingly harmless substances like water, vitamins, and minerals (substances that are vital to life) can all be toxic when consumed at an inappropriate dose. While essential oils have the potential for toxicity, the toxic dose of an essential oil is always far above the recommended appropriate use.

Internal use should be considered on a case-by-case (or oil-by-oil) basis

When it comes to using essential oils internally, you'll need to consider the specific chemistry of the oil, its possible effects, appropriate doses, and application methods for each individual oil. It is important to note that some essential oils simply cannot be used internally—in any amount. Perhaps even more important, the ability to use an essential oil internally will also depend on the quality of the oil itself.

Other internal usage safety guidelines

The Federal Drug Administration (FDA) has produced a list called Generally Recognized as Safe (GRAS), which identifies essential oils as safe to be used internally as non-medical constituents. The GRAS list provides general safety suggestions as well as information about plants and other substances that have a well-documented history of safe internal use. While there are essential oils with applications that extend beyond this list, the GRAS list is a credible resource to help confirm the safety of using essential oils internally.

Effective methods for internal application

- *Add essential oils to your favorite recipes by replacing fresh or dried herbs and spices with a drop of oil when cooking or baking*
- *Place essential oil drops into a veggie capsule and swallow with water (this excludes oils that should always be diluted—Cassia, Cinnamon, Oregano, etc.)*
- *Add an essential oil to a glass of water, your morning smoothie, milk, tea, or your other favorite beverages*
- *Place a few drops of an essential oil into a small amount of yogurt or applesauce*

What oils should I start with?

Whether you are using essential oils aromatically, topically, or internally, you might be wondering about the best place to start. At dōTERRA®, we suggest starting with simple essential oils that have a variety of applications so that you can get used to the potency, power, aroma, and characteristics of essential oils and how to use them. When you are first starting out, consider using any or all of the oils below:

Lemon essential oil is one of the top selling oils at dōTERRA, and with good reason. If you are looking for an uplifting, versatile oil to start off your essential oil collection, Lemon is an excellent choice.

If you are looking for an introduction to the world of essential oils, Lavender oil is a wonderful oil to start with. Not only does Lavender provide a calming, pleasant aroma, but it is very useful in everyday life as well.

When you want to experience the potent power of essential oils, Peppermint oil can be used topically, aromatically, or internally for impressive results.

- *Reduce the appearance of skin imperfections or soothe occasional skin irritations by applying Lavender oil to the skin*
- *Place a few drops of Lavender oil in your essential oil diffuser to help ease feelings of tension*
- *Promote an environment for restful sleep by adding a few drops of Lavender oil to bedding, pillows, or the bottoms of your feet before bedtime*
- *Add flavor to marinades, desserts, and other baked goods or soften citrus flavors by using Lavender oil when cooking*
- *Combine a few drops of Lavender oil to a spray bottle of water and spritz over your mattress, couch, or in the linen closet to add freshnesss*

- *Place a few drops of Lemon oil in your diffuser to help create an uplifting environment*
- *Soak a cloth or rag in Lemon oil and use it to protect, clean, and shine wood finishes around the home*
- *Add a few drops of Lemon oil to a glass of water for a more refreshing beverage*
- *When you need to remove grease or residue from your hands, wash with Lemon oil and water*
- *Add Lemon oil to a spray bottle of water and use it to clean countertops and other surfaces*

- *Freshen your breath by placing one drop of Peppermint oil in your mouth*
- *Place a few drops of Peppermint in your essential oil diffuser when you are feeling low on energy*
- *Add Peppermint oil to your shampoo or conditioner to give yourself a stimulating hair massage*
- *When you want a morning energy boost, rub Peppermint oil on your temples when you first wake up*
- *Diffuse Peppermint oil to help promote feelings of easy breathing and clear airways*

CHAPTER 4 Are essential oils safe?

When you use high quality essential oils in the appropriate amount, they can absolutely be safe enough to use at home on yourself and your family. High quality essential oils will have gone through extensive testing to ensure they are safe, are pure, and have the correct amount of concentration. Like anything else that you would use in your home or on your children, essential oils are safe when you adhere to recommended dosage amounts and use them within proper parameters. Among the many benefits of essential oils, one major advantage is that they offer peace of mind to parents who worry about using chemical-ridden products on their children, or in the home for cleaning, cooking, and other tasks. Essential oils are a safe alternative to many of the products you see on grocery store shelves that contain synthetic toxins or chemicals that could be harmful. Learning about proper use and dosage will allow you to safely use essential oils at home and on your family, while enjoying the benefit of a natural product.

Recommended ideal amounts

As mentioned, essential oils can be used safely when users stay within recommended amount ranges. Using the suggested dosage for essential oils not only helps the user avoid consuming unsafe levels, but also allows them to enjoy the maximum benefit of the essential oil. Of course, each individual needs to consider their own level of experience with essential oils and any personal health concerns when following suggestions for daily amounts. Always consider the advice of your health-care provider as you seek to benefit from the use of essential oils.

Review the chart below for suggestions about daily recommended amounts. Keep in mind that these are general recommendations that don't account for the personal health status or experience level of the essential oil user.

Although essential oils are safe when we use them correctly, if you overwhelm your body with too much of an essential oil, it can lead to unwanted outcomes. Cells in the body employ complex chemical reactions to metabolize the essential oil, but when the body is overwhelmed with an improper amount, it exceeds the cells' metabolic capacity. Remember that it is never desired or appropriate to exceed the metabolic capacity of the cells. Using an essential oil in the way and amount that it was intended will help you prevent overwhelming the body with incorrect essential oil levels.

APPLICATION	ADULT		CHILD	
	Ideal Amount	**24 hr Max**	**Ideal Amount**	**24 hr Max**
Aromatic	–	–	–	–
Internal	2-4 drops	12-24 drops	1-2 drops	3-12 drops
Oral	1-3 drops	4-18 drops	–	–
Dermal	3-6 drops	12-36 drops	1-2 drops	3-12 drops

How can I be sure that I'm using essential oils safely?

- Always keep the safe amount-per-day guidelines in mind.
- Avoid applying oils directly to the nose, ears, or around the eyes.
- For topical application, it is important to consider dilution. Dilution helps you avoid sensitivity with essential oils, and is particularly helpful for young or small children, or those with sensitive skin. It is also important to remember that some essential oils (Cassia, Cinnamon, Geranium, Lemongrass, Oregano, and Thyme) should always be diluted before topical use.
- Make sure to store essential oils out of the reach of children. This will help prevent accidental ingestion.
- When storing essential oils, you'll also want to keep the oils away from excessive light or heat, because this can alter the chemical properties of the essential oil significantly.
- Always help younger children apply essential oils to make sure they get the proper amount. It is also a good idea to encourage teenagers to set a good example for younger children by always following guidelines for proper usage.

GLOSSARY

Aromatic Use: Essential oils can be used aromatically to enjoy the aroma of an oil through the air by diffusing the oil in an essential oil diffuser, or by inhaling the oil straight from the bottle.

Carrier Oil: Lipid-based substances that can be used to dilute essential oils. The carrier oil literally helps "carry" the essential oil to the desired area. Using a carrier oil allows the user to effectively apply the essential oil topically, without reducing the potency of the oil.

Diffusion: Diffusion is the most effective way to enjoy essential oils aromatically, and is most efficiently accomplished by using an essential oil diffuser. Essential oil diffusers take a whole oil and transform it into a mist, or microscopic droplets, that allows the user to experience the aroma of the essential oil for an extended period of time.

Essential Oils: Natural compounds found within the bark, stems, roots, flowers, seeds, and other parts of plants. These compounds are highly concentrated and extremely potent. They give plants their smell, protect them from environmental conditions, and play a role in plant pollination.

Expression: Also referred to as "cold pressed," this process extracts essential oils from the peels of citrus fruits by breaking open tiny sacs on the rind of the fruit that contain the essential oil.

FDA GRAS List: The Federal Drug Administration (FDA) has produced a list called Generally Recognized as Safe (GRAS), which identifies essential oils that are safe to be used internally as non-medical constituents. The GRAS list provides general safety suggestions as well as information about plants and other substances that have a well-documented history of safe internal use.

Internal Use: Internal use of essential oils consists of consuming the oil by dropping oils directly into the mouth, placing oil drops in a glass of water, or adding oil drops to veggie capsules and swallowing.

Limbic System: The system of the brain where your emotions and memories live. As you breathe in the scent of an essential oil, the limbic system creates a response in your brain based on your memories associated with that particular aroma.

Olfactory System: The portion of the brain that controls sense of smell. When you inhale the aroma of an essential oil, the scent is processed in the olfactory system of the brain by way of the olfactory nerve. The olfactory system is connected to the limbic system of the brain where your emotions and memories live.

Steam Distillation: The process of steam distillation uses heated steam and pressure to extract essential oils from their plant parts. This is the most common process for producing essential oils because the method of pressurization protects the complex chemical compounds found in essential oils, as it allows the oil to be distilled at temperatures well below the normal boiling point.

Topical Application: Applying essential oils topically is a safe, effective way to yield the benefits that essential oils hold for the skin and other aspects of the human body. Due to their chemical makeup, essential oils can easily penetrate the skin and offer a localized benefit to the applied area. Essential oils are easily absorbed into the skin; however, you can prolong the benefits of an essential oil by using a carrier oil to slow down the evaporation of the oil, allowing it to moisturize the skin.

Toxicity: The point at which a substance becomes harmful or damaging to the body. Seemingly harmless substances like water, vitamins, and minerals that are vital to human life can become toxic when consumed at an inappropriate dose. While essential oils have the potential for toxicity, the toxic dose of an essential oil is always far above the appropriate use.

Volatile Aromatic Compounds: The naturally occurring compounds found within plants. Comprised of tiny, organic molecules that are known to quickly transform from a liquid or solid state into a gas when they reach room temperature.