

NAHA 

The National Association for Holistic Aromatherapy

Aromatherapy Journal

In this Issue:

- Aromatherapy for Sleep during the School Year
- Ginger (*Zingiber officinale*)
- Using Rosemary Essential Oil with Memory Issues
- Threatened Essential Oil Species

Aromatherapy E-Journal
Autumn 2017.3

NAHA WOA VIII Beyond Aromatics 2016 Conference Proceedings
Click Here to Purchase



BEYOND AROMATICS® II
OCTOBER 20-23, 2016 • THE WORLD OF AROMATHERAPY VIII
UNIVERSITY OF UTAH CONFERENCE CENTER & BOTANICAL GARDEN

Aromatherapy Journal

A Quarterly Publication of NAHA
Autumn 2017.3 AJ567

The National Association for
Holistic Aromatherapy, Inc. (NAHA)
A non-profit educational organization
Boulder, CO 80309

Administrative Offices

PO BOX 27871
Raleigh, NC 27611-7871
Office Phone: (919) 894-0298
Fax: (919) 894-0271
Email: info@NAHA.org
Websites: www.NAHA.org
nahaconference.com

Executive Board of Directors

President: Annette Davis
Current Past President: Jade Shutes
Vice President:
Jennifer Hochell Pressimone
Public Relations/Past President:
Kelly Holland Azzaro
Secretary: Rose Chard
Treasurer: Eric Davis
Director Coordinator: Anna Dowie

Journal Committee

Chief Editor: Sharon Falsetto
Assistant Editor: Kelly Holland Azzaro
Journal Layout: Kelly Peak

Article Submissions

Please send article proposals to:
Sharon Falsetto
sharon@sedonaaromatherapie.com

Advertising

For advertising information, please email:
info@NAHA.org **Media Guide**

The opinions expressed by the authors are their own and do not necessarily reflect the views of the editor or of NAHA. NAHA and the editors do not accept responsibility for the use or misuse of essential oils mentioned in these articles. The Aromatherapy Journal reserves the right to accept or reject any advertisement or article submitted and does not necessarily endorse products advertised in this journal.

© Copyright 2017 NAHA

All Rights Reserved by NAHA.
Reproduction in whole or in part without
written permission is prohibited.



Table of Contents

PAGE NAVIGATION: Click on the relevant page number to take you a specific article. To go back to the Table of Contents, click on the arrow in the bottom outside corner of the page.

Editor's Note	5
Aromatherapy Use for Burns	7
by Sandra Nosek	
All About Arnica	15
by Shanti Dechen	
Apricot Oil: Nature's Juiciest Treat for The Skin.....	19
by Elizabeth Ashley	
Essential Oil Therapy for Attention Deficit/Hyperactivity Disorders (ADHD).....	25
by Lisa Zochert	
Aromatherapy and Sleep Issues in Children during the School Year	33
by Amy Emmett	
The Use of Rosemary Essential Oil with Memory Issues....	37
by Sharon Falsetto	
The <i>Myrtaceae</i> Plant Family	45
by Cheryl Murphy	
Ginger (<i>Zingiber officinale</i>)	51
by Jade Shutes	
Essential Oils for the Thanksgiving Celebration	59
by KG Stiles	
Threatened Essential Oil Species	63
by Kathy Sadowski	
NAHA Director Autumn Recipes	78
NAHA Market Place	81

COVER IMAGE and ABOVE: Rosemary (*Rosmarinus officinalis*)



Sedona Aromatics
Sedona Aromatherapie LLC

HOME STUDY PROGRAM: **LINGUISTICS OF AROMATICS™**

**Certificate in
Foundation Aromatherapy**

**Certificate in
Professional Aromatherapy**

PLUS: Advanced Aromatic Chemistry with Rosemary Caddy

One-on-one mentoring from UK-certified aromatherapist Sharon Falsetto, BA (Hons).
Sharon has 10 years experience in UK health-related services plus
10 years of international training and experience in the aromatherapy profession.
She is the published author of *Authentic Aromatherapy*.

Other services include: • consulting • custom blending • professional writing and editing

sharon@sedonaaromatherapie.com (928) 239-5785

www.sedonaaromatherapie.com

Visit our aromatic garden on Instagram!

All courses are available via PDF format or mailed-out workbooks. Generous payment plans available.



Editor's Note

Autumn 2017

Autumn, both in the aromatic garden and in our own lives, is generally a time for reflection, winding down after a busy summer, and preparing for the winter months ahead. Personally, this summer has been a time of loss for me, a time of adjustment, and a time for new life and growth. It seems like my garden reflected my life this season and endured struggles, storm battering, and eventual blooming, a road that many of us patiently navigate often in life. Each time we hopefully gain new strength from our experiences and will confidently bloom the stronger and more beautiful for it.



If you have children of school age, you've probably spent a busy summer during the school break and are now in the back-to-school mode, not always an easy time! However, Amy Emmett has some aromatherapy answers for sleep issues with little ones in association with this topic in her article on *Aromatherapy and Sleep Issues in Children during the School Year*. Looking ahead to Thanksgiving, KG Stiles guides us on which essential oils are useful for such a celebration and gathering of family and friends. Sandra Nosek gives advice on how to use aromatherapy to treat burns; while Lisa Zochert looks at the potential for using essential oils to help with Attention Deficit/Hyperactivity Disorders (ADHD).

With regard to essential oil and carrier oil profiles in this issue, we get a closer look at the *Myrataceae* plant family with Cheryl Murphy; apricot kernel oil with Elizabeth Ashley; arnica oil with Shanti Dechen; and ginger essential oil with Jade Shutes. I also take a look at how rosemary essential oil may help with memory issues.

Finally, Kathy Sadowski writes an in-depth essay on how many of our plant species are threatened, with regard to essential oil use. And, of course, we have the usual round up of some favorite autumn recipes from our NAHA directors.

Whatever your aromatic interests, we have a wide variety of plants, essential oils, and topics from our talented writers that may resonate with you in more ways than one. Reflect, assess, learn, and plan for the next part of your aromatherapy journey with us – and take time to enjoy these beautiful, warming days of autumn, both inside and out!

With aromatic blessings,

Sharon Falsetto

Sharon Falsetto, BA (Hons), NAHA Certified Professional Aromatherapist®



Online
Aromatherapy
Certification

Holistic Aromatherapy Certification Program
248 Hour Online Program ~ NAHA Approved

New User Friendly State of the Art Website
Expanded Learning Experience ... Additional Classes
& Training from JennScents ... Top Notch Guest
Speakers

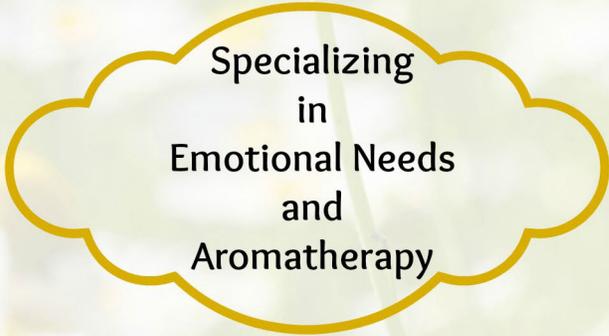
AromaTherapeutic Products

Custom
Blends

Personal
Care



Pet
Care Skin
Care Herbs



One on One Sessions for:
Personal & Professional Growth

Holistic Health Consults

Jennifer Hochell Pressimone, T.SPE, CNHC, Holistic Aromatherapist
352-243-9627 | jh@JennScents.com
JennScents.com



Aromatherapy Use for Burns

by Sandra J. Nosek RN, BSN, IAC



In Honor of my Uncle Bill

Introduction

In June of 1971, my Uncle Bill was driving his gravel truck for work and was struck on the side by a vehicle who ran a stop sign. The fuel splashed onto my uncle, who was in the cab of the truck, and the truck ignited from friction causing him to suffer third-degree burns over 65% of his body. My uncle was in the hospital for many months and suffered many infections while there, one of which caused ototoxicity, which is hearing loss due to the use of a medication. In this particular situation it was an antibiotic, generally aminoglycosides, that they used to fight the infection. My uncle underwent many debridements of dead tissue and my aunt said he would be cold and shivering after each one. She would have hot tea waiting for him. Because hypovolemia or low fluid volume is common, he had to have at least thirty-two blood transfusions from which he also developed Hepatitis C. My uncle underwent many skin grafts using pig skin because he had no skin of his own to use. He suffered setback after setback but eventually he came home.

I was only nine years old but I remember the first time I saw him and how I didn't even see the burns on his skin but noticed how much weight he had lost. Through the years I admired his optimism, his love of life and his "Don't let anything stand in your way or get you down" philosophy. I am so proud of his strength and courage. I wish back then

we knew what we know today about aromatherapy and topical application of essential oils for wound healing, infections and anxiety. The use of aromatherapy may have reduced my uncle's hospital length of stay, decreased or eliminated his infections, possibly eliminated his hearing loss as a result, or calmed him when he was anxious, or relieved how cold he was after debridement. Aromatherapy could have been taught in a single visit to my aunt for her to administer to him, or to the many nurses and doctors providing his care and dressing changes. He was so thankful to be able to return to his career for almost another thirty-six years before his passing. My aunt said his motto was to "keep on trucking!" And that is just what he did! I would like to thank my aunt Carol for allowing me to share his story.

Burns

Burns to the skin are caused by heat, cold, electricity, chemicals, friction or radiation.¹ Various research studies have shown essential oils and aromatherapy to be effective for patients with burns. Two different application methods were used in these studies; topical application and inhalation. Both application methods were proven to be beneficial in reducing infection, pain, and anxiety, in addition to improved healing time. Essential oils can be beneficial to minimize scarring, improve self-esteem, pain reduction, decrease

infection and often prevent it. Essential oils and aromatherapy can also help with depression, grief and anxiety. The purpose of this article is not to assist with first aid remedies nor is it to discuss each type of burn; rather it is to look at complimentary options for preventing infections and long-lasting care of partial and full thickness burn injuries, as well as emotional well-being of the individual experiencing this injury.

Superficial Burns

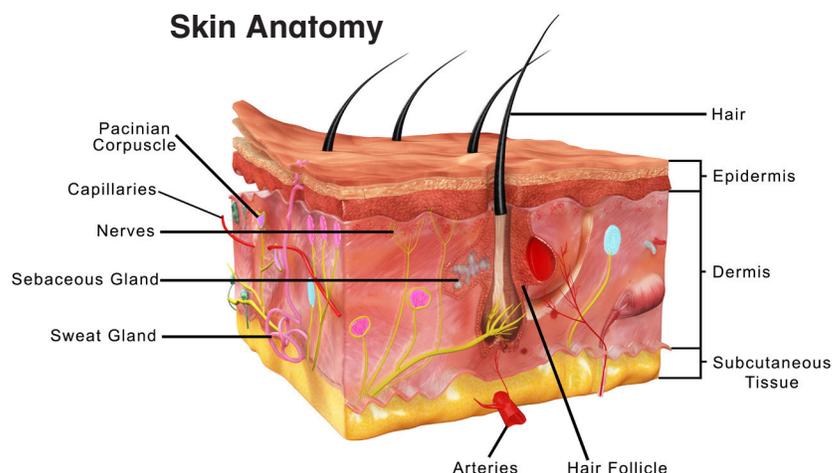
First degree burns are superficial and appear reddened but without blisters and can often be treated at home. Once the area is healed, usually within a few days, it is typically forgotten. This type of burn can benefit from an application of aloe vera (*Aloe barbadensis*) gel and/or cool compresses on the affected area.

Partial Thickness Burns

Second degree burns appear with blisters, are often very painful and can take up to eight weeks to heal. Partial thickness burns are also known as a second-degree burns. This type of burn affects the top two layers of skin and if infected can turn into a full thickness burn even after the initial treatment.² This type of burn can also cause fluid loss and shock if the total body surface area is large. There are many considerations physicians make in determining whether a burn is partial thickness or full thickness.

Full Thickness Burns

Third degree burns extend through all layers of skin while fourth degree burns extend into



muscle, tendon, cartilage and bone. These are considered full thickness burns and require treatment by a physician, hospitalization and often skin grafting. Third and fourth degree burns affect individuals for a long time and in many ways. They are primarily due to decreased mobility in the affected area, called a contracture due to severe scarring and decreased elasticity of the skin and disfigurement, resulting in diminished self-esteem, anxiety, feeling of coldness, and pain with debridement, an increased risk of infection, depression, and often grief. Individuals who suffer from these types of burns sometimes require adaptive tools and often prosthetics to help with activities of daily living. Grief and depression can be caused by decreased socialization and loss of time from work.

Essential Oil Studies with Burns

A case study was done to assess the use of essential oils following traumatic burn injury taken from data retrieved from Midwestern Pediatric Hospital. This was a comparative study on a matched case control design following each patient through hospitalization. One child received treatment with essential

oils and the other did not. According to this case study “the child [who] received only standard care was diagnosed with two blood stream infections and four hospital-acquired conditions while the child who received supplemental treatment with essential oils did not develop any blood stream infections, was diagnosed with one hospital acquired condition, was in the PICU [Pediatric Intensive Care Unit] one day less and had a four-day shorter length of hospital stay.”³ This is fascinating news and one that breeds hope for future complimentary care in the hospital setting.

Wound Healing

There were four studies that stood out on burn wound healing. The first being spike lavender (*Lavandula aspic* L.) essential oil, the second with the use of German chamomile (*Matricaria chamomilla*) essential oil, the third with use of blumea (*Blumea balsamifera*) essential oil, and the fourth with tea tree (*Melaleuca alternifolia*) essential oil. In the spike lavender (*Lavandula aspic* L.) essential oil study using a rat model with a topical treatment of spike lavender (*Lavandula aspic* L.) essential oil in a 4% ointment, the study showed to significantly enhance wound contraction rate and protein synthesis.⁴ This strongly supports the use of spike lavender (*Lavandula aspic* L.) essential oil for tissue repair. The only safety consideration is that the maximum dermal use level of camphor is 19%.⁵ In the second study, German chamomile (*Matricaria chamomilla*) extract was used topically in olive (*Olea europaea*) oil twice daily in the treatment group; the control group received no treatment and the vehicle group received only olive oil. They concluded

Topical Wound Blend for a Partial Thickness Burn

Ingredients:

10 mL aloe vera (*Aloe barbadensis*) gel

Essential Oils:

5 drops lavender (*Lavandula angustifolia*)

5 drops tea tree (*Melaleuca alternifolia*)

Directions for Making and Use:

Mix together in a dark amber jar and store in a cool dark place near kitchen. Use this blend two to three times daily until healed. This is a 5% blend.

Topical Wound Blend for a Full Thickness Burn

Ingredients:

10 mL evening primrose
(*Oenothera biennis*) oil

10 mL aloe vera (*Aloe barbadensis*) gel

Essential Oils:

10 drops spike lavender
(*Lavandula aspic* L.)

6 drops laurel camphor
(*Cinnamomum camphor*)*

Directions for Making and Use:

Mix these ingredients together and store in a dark amber jar. Apply to affected area twice daily for full thickness burn care approved and overseen by a physician. Store in a cool dark place. This is a 4% blend.

Cautions: Avoid use with homeopathic remedies. Avoid use in pregnancy and with babies and young children.

*Laurel camphor essential oil is identical in composition to sambong (*Blumea balsamifera*) whose high price prevents its occurrence in European and American commerce.¹⁹

a significant difference with use of German chamomile (*Matricaria chamomilla*) extract.⁶ In addition, German chamomile (*Matricaria chamomilla*) essential oil could be used as an alternative to the chamomile extract. In the third study, the use of sambong (*Blumea balsamifera*) essential oil resulted in rapid wound healing in rats with deep second-degree burns.⁷ The only safety consideration found was to use caution if allergic to ragweed.⁸ Tea tree (*Melaleuca alternifolia*) essential oil was used in a hydrogel form topically and proved to be effective in cooling the burn but also accelerated wound healing.⁹ Tea tree (*Melaleuca alternifolia*) essential oil is generally safe but caution should be used around animals and maximum dermal use for humans is 15%.¹⁰ Further studies are needed for medical staff to appreciate the impact this can make on burn wound care.

Gram-negative Bacteria

Gram-negative bacteria is common in burn infections. The use of geranium (*Pelargonium graveolens*) essential oil in one study showed that it was effective against gram-negative pathogens in the use and recurrent infections caused by resistant organisms.¹¹ There is a minimal risk for sensitization and maximum dermal use is 17.5%.¹² It is plausible that geranium (*Pelargonium graveolens*) essential oil could be used at 5% effectively and without harm.

Anxiety, Pain and Pain Intensity

One randomized clinical trial of rose (*Rosa x damascena*) essential oil was carried out via inhalation on fifty patients with second and third degree burns, with the control group inhaling distilled water. This study suggests inhalation of rose (*Rosa x damascena*) essential oil for reducing pain and pain intensity in burn victims with dressing changes, and not just a merely possible as seen in this quote: “there was a significant difference between the mean of pain intensity before and after intervention at fifteen and thirty minutes after dressing changes.”¹³ It is well known the positive effects of lavender (*Lavandula angustifolia*) essential oil with anxiety, but in a single-blind clinical trial on ninety patients with burns a blend of rose (*Rosa x damascena*) and lavender (*Lavandula angustifolia*) essential oils was used, and massage using lavender (*Lavandula angustifolia*) essential oil and sweet almond (*Prunus dulcis*) oil as a carrier reduced anxiety and pain in burn patients compared to the control group.¹⁴ There are no safety considerations on topical or inhalation of either of these two essential oils.

Topical Wound Blend for Burn Infections

Ingredients:

20 mL aloe vera (*Aloe barbadensis*) gel or hydrogel

Essential Oils:

5 drops lavender (*Lavandula angustifolia*)

5 drops tea tree (*Melaleuca alternifolia*)

Directions for Making and Use:

Create a 5% hydrogel using these ingredients. Mix together and store in a dark amber jar, in a cool dark place. Apply to infected area of burn cover with a xeroform (bismuth impregnated Vaseline gauze as standard burn care) and wrap every eight hours and as needed as overseen and approved by physician.

Self-Esteem

Although not a study on burn patients, one study was conducted on self-esteem and reflected that ylang-ylang (*Cananga odorata*) essential oil was beneficial in significantly improving self-esteem.¹⁵ One would want to ensure to not use topically on damaged tissue or with a child under two years of age.¹⁶ This would best be diffused in the room of a burn victim to uplift and improve self-esteem.

Carrier Research

Aloe vera (*Aloe barbadensis*) gel was found in one study to enhance epithelialization and granulation of burn wounds better than nitrofurazone which is commonly used to treat burn wounds. This study goes on to say that “it can be explained by its hydrocolloid and moisturizing and anti-inflammatory effects.”¹⁷ Evening primrose (*Oenothera biennis*) oil combined at a 10% dilution rate with an unscented white cream and applied topically in another study improved wound healing in radiation burns over the common radiation burn treatment using Lioxasol.¹⁸ Aloe vera (*Aloe barbadensis*) gel, evening primrose (*Oenothera biennis*) oil, sweet almond (*Prunus dulcis*) oil and olive (*Olea europaea*) oil make wonderful carriers for damaged skin tissue as seen in burn victims.

Conclusion

Full thickness burns can change one’s life, self-esteem, personality, and even their career depending on the extent of the injury. If they had used aromatherapy as part of my uncle’s therapies, it would have possibly reduced his infections, decreased his length of stay, decreased anxiety and possibly prevented his hearing loss. Research studies in the lab



Ylang-ylang (*Cananga odorata*)

Massage Blend for Pain and Anxiety

Ingredients:

30 mL sweet almond
(*Prunus dulcis*) oil

Essential Oils:

6 drops rose (*Rosa x damascena*)
6 drops lavender (*Lavandula angustifolia*)

Directions for Making and Use:

Mix together a 2% dilution massage oil blend and store in a dark amber dropper bottle for relief of pain and anxiety. The base blend of essential oil can be used without the carrier oil and diffused and inhaled for relief of anxiety and pain as well.

Inhalation Blend for Self-Esteem

Essential Oils:

7.5 mL ylang ylang (*Cananga odorata*)
7.5 mL lavender (*Lavandula angustifolia*)

Directions for Making and Use:

In a 15 mL dark amber dropper bottle make a diffuser blend using 7.5 mL ylang ylang (*Cananga odorata*) essential oil and 7.5 mL lavender (*Lavandula angustifolia*) essential oil. From this blend, add 5-6 drops to filtered water using a nebulizer diffuser as needed to improve self-esteem and reduce anxiety.

and in hospitals have shown a significant improvement when aromatherapy and essential oils have been used. Essential oils have been shown to improve wound healing, as well as accelerate it, reduce and prevent infections, reduce pain, anxiety, depression and improve self-esteem. The medical community will usually only use treatments that are defined by evidence based practice. Further research is required for the medical community to accept aromatherapy and essential oil use as evidence based practice. Aromatherapy and essential oil use via topically, inhalation and with massage can be incorporated into daily care of the burn victim.

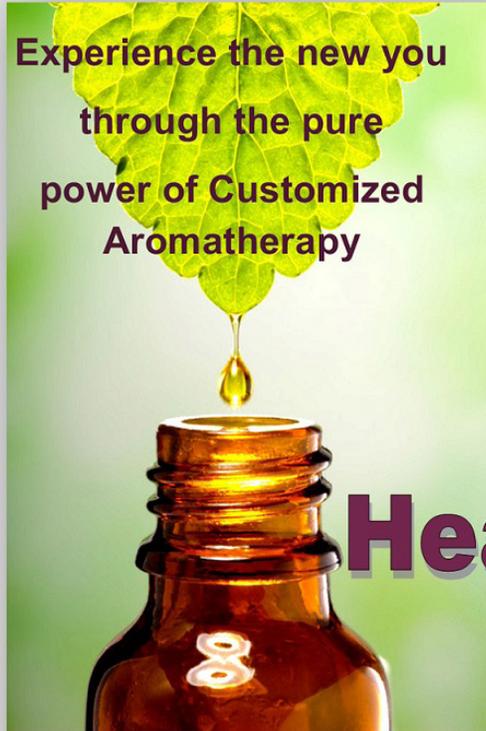
References

1. Burns. (2017). Retrieved on January 28th 2017 from <https://en.wikipedia.org/wiki/Burn>
2. Partial Thickness Burns. Retrieved on July 19th 2017 from <http://www.woundcarecenters.org/article/wound-types/partial-thickness-burns>
3. Use of Essential Oils Following Traumatic Burn Injury: Case Study. (2016). Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/28089405>
4. Antioxidant and Wound Healing Activity of Lavandula aspic L. Ointment. (2016). Djemaa, Ben, Bellassoued, K., Zouari, S., El Feki, A., and Ammar, E. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/27769632>
5. Tisserand, R. & Young, R. (2014). Essential Oil Safety: A Guide for Health Care Professionals. 2nd Ed. Spike Lavender. (Page 329). Churchill Livingstone: Elsevier.
6. An Experimental Study of the Effects of *Matricaria chamomilla* Extract on Cutaneous Burn Wound Healing in Albino Rats. (2008). Jarrahi, M. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/18404562>
7. *Blumea balsamifera* Oil for the Acceleration of Healing of Burn Injuries. (2015). Fan, Z.W. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/26393555>
8. Sambong Warning and Side Effects. (2011). Retrieved July 21st 2017 from <http://www.medicalhealthguide.com/articles/sambong.htm>
9. Cooling the Burn Wound: Evaluation of Different Modalities. (2000). Jandera, V. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/10741593>
10. Tisserand, R. & Young, R. (2014). Essential Oil Safety: A Guide for Health Care Professionals. 2nd Ed. Tea Tree. (Page 441). Churchill Livingstone: Elsevier.
11. The Antibacterial Activity of Geranium Oil Against Gram-negative Bacteria Isolated from Difficult to Heal Wounds. (2014). Sienkiewicz, M. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/24290961>
12. Tisserand, R. & Young, R. (2014). Essential Oil Safety: A Guide for Health Care Professionals. 2nd Ed. Geranium. (Page 293). Churchill Livingstone: Elsevier.
13. The Effect of Inhalation Aromatherapy with Damask Rose (*Rosa damascena*) Essence on the Pain Intensity After Dressing in Patients with Burns: A Clinical Randomized Trial. (2016) Bikmoradi, A. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/27186201>
14. Comparing the Effects of Aromatherapy Massage and Inhalation Aromatherapy on Anxiety and Pain in Burn Patients: A Single-Blind Randomized Clinical Trial. (2016). Seyyed-Rasooli, A. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/27575673>
15. Aromatherapy with Ylang Ylang for Anxiety and Self-Esteem: A Pilot Study. (2014). Gnatta, J.R., et al. Retrieved on February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/25076278>
16. Tisserand, R. & Young, R. (2014). Essential Oil Safety: A Guide for Health Care Professionals. 2nd Ed. Ylang ylang. (Page 478). Churchill Livingstone: Elsevier.
17. Comparison of the Effect of Aloe Vera Gel and Nitrofurazone 2% on Epithelialization and Granulation Tissue Formation Regarding Superficial Second-Degree Burns. (2016). Irani, P.S., and Varaie, S. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/27840469>
18. Modulation of the Cell Kinetics of Pig Skin by the Topical Application of Evening Primrose Oil or Liaxasol. (1997). Morris, G.M. et al. Retrieved February 5th 2017 from <https://www.ncbi.nlm.nih.gov/pubmed/9501921>
19. *Blumea Balsamifera*. (2017). Retrieved August 15, 2017 from <http://henriettes-herb.com/eclectic/kings/cinnamomum-camp.html>

About Sandra Nosek:

Sandra Nosek is a registered nurse with a certification in clinical aromatherapy. She studied under Valerie Cooksley at the Institute of Integrative Aromatherapy® and received her aromatherapy diploma in 2015. Although newly certified she has spent many years researching and developing aromatherapy blends for herself, her family, friends and hospice patients. Sandra resides in Gilbert Arizona with her husband of 29 years. To learn more about Sandra, visit her website at: www.heavenscents.org

Experience the new you
through the pure
power of Customized
Aromatherapy



- ◆ Regain your health
- ◆ Free e-mail consultations
- ◆ Pet health consultations
- ◆ Customized Oil Blends, Salves & Inhalers
- ◆ Bath and Body Products

Sandra Nosek RN, BSN, IAC
Certified Nurse Aromatherapist

HeavenScents.org

Relax, Inhale and Feel the Difference
Free E-mail Consultation: HeavenScents@cox.net

THE INTERNATIONAL JOURNAL OF
PROFESSIONAL HOLISTIC AROMATHERAPY

- Peer-reviewed articles
- Practitioner case studies
- In-depth essential oil and chemical profiles
- Integrative practices
- Well-referenced information and resources for the professional
- Current research
- Practical techniques

Available in print! 4 issues per year

www.ijpha.com

Fostering the education and practice of the professional holistic aromatherapist

The IJPHA offers advanced education programs to earn your CPDs—featuring educators from around the world to share their expertise in their area of specialty.

Jennifer Jefferies, Naturopath, Aromatherapist, Author
Growing Your Wholistic Business & Aromatherapy Insight Cards
January 19-21, 2018 – Boulder, CO

Timothy Miller, ND, Mac, Lac, RA
Integrated Aromatic Medicine: Understanding Pharmacokinetics and Pathology—Part 1 & 2
April 10-12 and April 14-16, 2018 – Boulder, CO

NAHA PRESENTS

NAHA Branded Gear





www.naha.org

Shop online for beautiful and useful items from NAHA. Order totebags, lapel pins, mouse pads and more. Get your NAHA gear today!



Time Laboratories

products from nature's lab



- **Pure & Genuine Essential Oils**
- **Aromatherapy Skin & Body Care**
- **Herbal & Dietary Supplements**
- **Custom Product Development**
- **Private Label**



Windrose Aromatics
authentic aromatherapy

www.timelabs.com
877-846-3522





Images this page Arnica (Arnica Montana)

Arnica (*Arnica montana*)

Family: Asteraceae/Compositae

Arnica montana grows in high mountain regions of Northern Europe, Siberia, and it is also cultivated in North America.

The German folk name for arnica means “mountain of well-being.” Arnica has been used for centuries medicinally to reduce pain and inflammation. The *Arnica montana* plant grows one to two feet in height with vibrant flowers similar to daisies. Stems are round and hairy, ending in one to three flower stalks, with flowers two to three inches across. The upper leaves are toothed and slightly hairy, while lower leaves have rounded tips. The flowers are processed in an infusion to be used as carrier oil, while the roots of the plant are used for homeopathic remedies.

The active components of *Arnica montana* include sesquiterpene lactones and flavonoids,

which are known to reduce inflammation and ease pain. It also contains thymol, an essential oil component that fights infection; and carotenoid, a powerful antioxidant.

Medicinally, *Arnica montana* is available in many forms: Infused oil, tincture, homeopathic ointment, cream, salve and pills. Arnica infused oil is a wonderful addition to any first aid kit! You can use it on injuries, sprains, and bruises with unbroken skin. Arnica speeds up the healing process, prompting your body to send more white blood cells to clean up and repair the bruise.



Main Uses:

- Areas of pain and inflammation
- Fractures and sprains
- Bruises
- Strained muscles and tendons
- Contusions
- Swelling
- Add to massage blends.

How to Make Arnica Infused Oil

It is simple to make your own *Arnica montana* infused oil. The end result is a wonderful carrier oil to use for your essential oil blends and products!

STEP 1: Dry the flower heads, herbs or plant material for a day or two.

Method: Dry plants by putting them in a basket with a cloth or paper towel in the bottom to soak up any moisture, hang them up to dry, or place them in a paper bag.

STEP 2: Once the plant material is dry, you can chop, crush, or grind into small pieces or powder. You can infuse just one type of plant or a combination of plants like arnica (*Arnica montana*), rosehip (*Rosa rubiginosa* / *Rosa canina*) and calendula (*Calendula officinalis*).

STEP 3: Place one cup of dried arnica flowers into a pint size glass jar and cover with 1 ½ cups of olive (*Olea europaea*) oil. Fill the jar as far to the top as possible to prevent the infusion from going rancid or molding during the process. Add a label to the jar with the ingredients and date of infusion.

Both olive and jojoba (*Simmondsia chinensis*) oils have a very long shelf life and will not easily go rancid. Olive oil is generally used for infusions of non-aromatic plants. Jojoba oil would be a better choice for delicate aromatic flowers like rose (*Rosa x damascena*), chamomile (*Matricaria recutita*) or lavender (*Lavandula angustifolia*).

STEP 4: This mixture is then left in a dark and warm environment for two to four weeks. If the room temperature is warmer it will infuse quicker. Shake the mixture daily 25-40 times, until the base oil has absorbed

the properties and essential nutrients from the plant material. When you see the plant material start to degrade it is time for the next step.

STEP 5: Drain off and filter the plant matter, using a funnel and strainer. You can also use an additional paper filter if there are any small particles of plant matter.

STEP 6: Bottle and label. It is always best to store the finished product in a dark amber bottle. You can also refrigerate it to extend the shelf life.

Arnica Topical Healing Blend

Ingredients:

1 oz. arnica (*Arnica montana*) infused oil

Essential Oils:

5 drops helichrysum

(*Helichrysum italicum*)

4 drops lavender (*Lavandula angustifolia*)

4 drops palmarosa

(*Cymbopogon martinii*)

5 drops ginger (*Zingiber officinale*)

Directions for Making and Use:

Add the arnica-infused oil and the essential oils to a one-ounce glass bottle. Apply a small amount topically as needed to the affected area. If not in use, it is best to refrigerate to extend the shelf life.

Cautions: Do not add to the bath, because ginger (*Zingiber officinale*) essential oil is a skin irritant. Do not apply directly to broken skin or open wounds. This is a 3% dilution blend and should be reduced to 1% during pregnancy and for children over 10 years of age. Avoid use with children under 10 years old.

Precautions for Topical Application of Infused Oil:

Do NOT use on wounds or internally.

“Arnica oil contains a compound called helenalin, which may cause allergic reactions in people with sensitivity. If you develop a mild rash while using arnica oil, you are probably helenalin-sensitive and should stop using the oil.”¹

Broken skin: Don't apply arnica oil to damaged or broken skin. Too much could be absorbed.

Allergy to ragweed and related plants: Arnica may cause an allergic reaction in people who are sensitive to the *Asteraceae/Compositae* family. Members of this family include ragweed, chrysanthemums, marigolds, daisies, and many others. If you have allergies, be sure to check with your healthcare provider before applying it to your skin.

Do not take arnica by mouth. Pure arnica oil can be toxic if it gets inside the body, so avoid ingesting it.

If taken orally, this herbal oil may cause:

- Heart irregularities and increased heart rate
- Nervous disturbances
- Dizziness, tremors weakness and vomiting
- Mucous membrane and gastrointestinal irritation.²

References:

1. Dr. Weil website, Arnica, accessed from: <https://www.drweil.com/vitamins-supplements-herbs/herbs/arnica/>
2. Mercola website, If You're Into Sports, Arnica Oil May Come in Handy, accessed from: <http://articles.mercola.com/herbal-oils/arnica-oil.aspx>

About Shanti Dechen:

Shanti Dechen, CCAP, CAI, LMT is the founder and director of Aroma Apothecary Healing Arts Academy. She is a Certified Clinical Aromatherapist, clinical health practitioner and has been a certified massage therapist since 1979. She has a university background in healing and the sciences with over 15,000 hours of extensive holistic training and certification in body-mind therapies. She is the NAHA Regional Director of Colorado and lives in the beautiful mountain community of Crestone.

To learn more about Shanti, please visit her website at: www.learnaroma.com

Aroma Apothecary Healing Arts Academy
Exploring Nature's Pharmacy







**Clinical Aromatherapy
Healing Courses
& Products**

**Online & Distance
Learning Courses**

Recognized School: NAHA
Approved CEU Provider:
NCBTMB

\$25 DISCOUNT for any 50
hour Clinical Aromatherapy
Level 1 or 2 courses!
Use discount code **FALLFUN**
at our on-line enrollment.
Valid through OCT. 31, 2017.

Discover more at:
www.LearnAroma.com
888-276-6278

Your Body
Needs...

100% Pure Essential Oils



Essential oils and carrier oils
Aromatherapy accessories and body products
Workshops, classes and personal consultations

We specialize in custom face oils for skin care and blends for dealing with modern stresses.

YourBodyNeeds.com Info@YourBodyNeeds.com 443- 292-4395

In business since 2008, Your Body Needs... has developed relationships with distillers and educators in the field all around the world. We are dedicated to quality of product and to our customers.



Apricot Oil: Nature's Juiciest Treat for The Skin

by Elizabeth Ashley



It took me a while to discover apricot kernel (*Prunus armeniaca*) carrier oil, even though it was on the set aromatherapy course syllabus that I studied. Its therapeutic properties are very similar to sweet almond (*Prunus dulcis*) oil. Because my massage therapist had nut allergies, consequently, it stayed in the cupboard for many years. I've since discovered that that was a mistake as it's a wonderful healer for acne; being a very thin oil, it does not clog the pores. The silky consistency of this oil makes it a delight to use it. Far more expensive to produce than almond oil, it reduces the viscosity, and blending the two oils together creates a far easier massage oil consistency for many conditions.

Origin of the Apricot

So, where did the apricot originate from? Nobody really knows. Some say from China, that the fruit was carried across the Pontic Steppe by the Scythians on horseback. Others say maybe from India, three thousand years ago, brought to Eastern Europe along the Silk Roads. Legends even say that Noah rescued only one tree, the apricot, from the flood and planted it at the foot of the pyramid shaped Mt. Ararat in Armenia.

In fact, the apricot does not appear in either the Bible or rabbinic literature, but certainly, apricots do grow in Armenia, like no place on Earth. Boasting fifty different indigenous varieties, fruit plucked from trees growing

at the foot of the mountain are the lushest and plumpest you will ever find. Referred to as "Kings," any apricots sourced from elsewhere in Armenia are good, but not quite the same. These particular ones are known as "courtiers."

The Turkish enjoy a celebratory saying when life feels fine: *Bundan iyisi Şam'da kayısı*, the only thing that could be better than this, is an apricot in Damascus. In other words, *life is darn near perfect*.¹

Since I'm not partial to the taste, I don't foresee myself using the phrase as often as one might! At least, I don't think I like them, but the chances are my experience of the fruit is a shadow of what it could be. British produce harvested before the vitamins and minerals of ripeness have had chance to develop to prolong supermarket shelf life, or canned into overly sweet syrup, potentially taste very different to a juicy drupe plucked fresh, its velvet still warm from the Syrian sun.

Pliny tells us the Romans grew them in 100AD and referred to the apricot as "The Precious One." Ancient Greeks knew them as the "Golden Eggs of the Sun." Medieval Arabic medicinal texts cite apricot for fevers and for stomach ache and the ninth century physician Al-Kindi describes how he uses apricots as a preparation for transfusion. Twelfth century philosopher Maimonides advises use of the



Apricot Trees

“kernel of a roasted apricot” as a medication to stiffen the penis.²

Despite their elevated status on the Roman table, apricots seemed not to follow battalions to the West, remaining a secret of the Eastern World for many centuries to come.

We know that apricots were in England by the sixteenth century, as documents show Henry VIII’s gardener, a Mr. Wolf*, planting one on his estate in 1524. In 1611, the archives of London’s royal palace, Hampton Court, show James I paying his head gardener the princely sum of £100 to plant apricot trees around the walls of the kitchen garden.³ By the seventeenth century, according to Wikipedia,⁴ apricots had become part of traditional herbal medicine, being used for tumors, ulcers and edema, although so far I have not found original sources to attest to that.

*Note: No full is name given in historical references.

Derivation of the Name

The name apricot is thought, according to William Turner in his *New Herbal Parts I & II* (1568),⁵ to come from the Latin word

præcoqua / præcocca meaning *precocious*, because the apricot flowers early in the summer, far earlier than her counterpart, the peach (*Prunus persica*). Its Linnaean binomial (species) nomenclature, *Prunus armeniaca*, pays testament to its strong Armenian connection, and the genus *Prunus* tells us it is a stone fruit. Perhaps more romantically, it derives from the genus family name of *Rosaceae*, so it is related not only to the rose, but also to almond, peach and cherry.

The almond relationship becomes more obvious as you get to know the oil. Apricot kernel oil smells like almonds, and it has a bitter and sweet version; the bitter chemotype contains prussic acid that breaks down into hydrogen cyanide. Be warned that the largest cause of people being admitted to hospital for cyanide poisoning is consumption of some form of apricot kernel although, as we will see in a moment, in moderation it is an edible commodity. It shares a connection with peach kernel too; both oils are often referred to as *Persic oil* in literature, so confusion between the two sources can be rife.

Apricot as a Food Source

Famously, apricots are part of the staple diet of the people living in the Pakistani mountainous valley of the Hunza, known for their amazing longevity of life. Their trees are allowed to grow to an enormous size, in order to exploit their maximum potential for fruit. Tiny children scamper like monkeys, nimbly swinging through the upper branches, to collect every last morsel of fruit. By summer, they gorge themselves on the bounty of rich, juicy fruits and lay many of them out in the sun to dry for winter storage. Indeed, dried apricots are soaked in syrup and drunk as the traditional Islamic drink for the feast after sundown for Ramadan.

No part of the apricot is wasted. Shells are broken open and used to fuel the fire as the inside is crushed and the rich oil of the kernel oozes, to be used to ignite their lamps and for cooking. A favorite staple of the area is that of crushed kernel (which is like a marzipan-y paste) smeared onto chapattis.

The Apricot and China

But if apricots originated in the Himalayas, then they found their way to China very early in history; Traditional Chinese Medicine has utilized the apricot kernel for millennia. The Chinese word for apricot means “place of education” and it has profound links with learning and gratitude to them. History has it that Confucius would impart his knowledge to students in a grove surrounded by apricot trees and Dong Feng, a physician from the Three Kingdoms Period, is believed to have requested that people plant apricots in his orchard on recovery from their malaise in gratitude of their improvement.

The Chinese call their medicine Xing ren – apricot seed, boiling and decocting the kernels. Used as tonics for the large intestine and for lung complaints, they have a bitter, warm and slightly toxic taste.

Use of Apricot

Apricot kernel’s primary use is for generating fluids.⁶ On the most fundamental levels we would say that dry skin is moisturized but think also of dry unproductive coughs, constipation,⁷ when the apricot will moisten the intestines, and for compresses for tired and irritated eyes.⁸

The oil is rich in linoleic acid, an omega-6 derivative that reduces the skin’s permeability

Aromatherapy Poultice (to draw swelling from a bruise)

Ingredients:

1 teaspoon apricot kernel
(*Prunus armeniaca*) oil

Essential Oils:

2 drops helichrysum
(*Helichrysum italicum*)
1 drop geranium
(*Pelargonium graveolens*)
1 drop juniper (*Juniperus communis*)

Directions for Making and Use:

Blend together the carrier oil and the essential oils. Soak a piece of gauze in the blend. Bandage the site of the bruise with the gauze. Leave on overnight so that the blend can bring the bruising and inflammation to the surface.

Cautions: Avoid during first 16 weeks of pregnancy or if the client is taking blood thinning medication.



Apricot kernel (*Prunus armeniaca*) oil

Massage Oil for Bronchitis

Apricot oil is blended with the immune boosting properties of sea buckthorn oil and tamanu oil to create a rich oil which is the color of fire opals. Monarda essential oil releases her supercharged levels of thymol and geraniol to calm scar tissue developing in the lungs. Ravensara essential oil eases the cough and alleviates underlying infection.

Ingredients:

- 1 teaspoon apricot kernel
(*Prunus armeniaca*) oil
 - 1 teaspoon sea buckthorn
(*Hippophae rhamnoides*) oil
 - 2 teaspoons tamanu
(*Calophyllum inophyllum*) oil
-

Essential Oils:

- 1 drop monarda (*Monarda fistulosa*)
 - 1 drop ravensara (*Ravensara aromatica*)
-

Directions for Making and Use:

Blend the ingredients together and massage into the upper back, paying special attention to the trapezius and deltoids area which suffer with so much tension from coughing.

Cautions: Avoid use before 16 weeks of pregnancy.

to water, harnessing moisture within. Linoleic acid (or vitamin F) plumps the skin, hydrates, heals and protects it. It is also bursting with oleic acid, and consequently it emulsifies the skin's surface. Anti-oxidant, apricot kernel oil calms the speed of cell turnover and invites the granular layer to generate keratinocytes and send them to the surface for a refreshed and more youthful complexion.

Research into Apricot

Apricot kernel is an under-researched carrier oil so far, but early results show medieval medicine might be correct. In the 1950s, one of its constituents, amygdalin, was touted as an anti-cancer treatment, but it was subsequently branded the claims of quackery. Not all scientists were convinced. In March 2016, laboratories at the University of St Petersburg found that the apricot kernel had, indeed, killed tumors in mice, and it had achieved it via the amygdalin's interaction with a bacteria genome in the tumor.⁹

Clearly, the cyanide poisoning issue is a tiny detail that they have yet to overcome to make it into a medicine. It's certainly not home and dry yet, but there may be other cancer avenues that might also be exploited. The high levels of oleic and linoleic acids and lower levels of the vitamin E compound, α -tocopherol, seem to boost the immune system and have been proposed as potential weaponry against immune-suppression from chemotherapy drugs.¹⁰

Finally, it has been proven, in animal trials, to contain cardioprotective nutrients that reduce injury as the blood re-enters the heart after myocardial infarcts or heart attacks.¹¹

References:

1. Acupuncture Today. (n.d.). Apricot Seed (xing ren). Retrieved from: http://www.acupuncturetoday.com/herbcentral/apricot_seed.php
2. Lev, E. A. (2007). Practical Materia Medica of the Medieval Eastern Mediterranean According to the Cairo Genizah (Sir Henry Wellcome Asian). Brill.
3. Amherst, A. (1896). A History of Gardening in England: Unikum.
4. Wikipedia website, Apricot. Retrieved from: <https://en.wikipedia.org/wiki/Apricot>
5. Turner, W. (1568) A New Herbal Parts I & II
6. Dr Mao. (n.d.). Apricot. Retrieved from Ask Dr Mao: <http://www.askdrmao.com/natural-health-dictionary/apricot/>
7. Acupuncture Today. (n.d.). Apricot Seed (xing ren). Retrieved from: http://www.acupuncturetoday.com/herbcentral/apricot_seed.php
8. Yin Yang House. (n.d.). Xing Ren Apricot Seed - Chinese Herbal Medicine. Retrieved from Yin Yang House: https://theory.yinyanghouse.com/theory/herbalmedicine/xing_ren_tcm_herbal_database
9. Yamshanov VA, K. E. (2016, 03). Effects of Amygdaline from Apricot Kernel on Transplanted Tumors in Mice. Retrieved from PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/27021084>
10. Tian H, Y. H. (2016, Aug). Apricot Kernel Oil Ameliorates Cyclophosphamide-Associated Immunosuppression in Rats. Retrieved from PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/27262314>
11. Zhang J, G. H. (2011, Dec). Protective effects of apricot kernel oil on myocardium against ischemia-reperfusion injury in rats. Retrieved from PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/21896302>

About Elizabeth Ashley:

Elizabeth Ashley qualified as an aromatherapist in 1993, and passed her Advanced Diploma of Aromatherapy with distinction in 1994. She is the author of the acclaimed Secret Healer series of fifteen Aromatherapy manuals, and also of a beginner's aromatherapy course. In addition, Elizabeth holds a Diploma in Medical Dowsing, a Certificate of Medical Astrology and the Business Link Business Excellence Award. She is a mum to three children and writes in a green and blue shed in the Shropshire hills, UK. Elizabeth is the NAHA UK Director. To learn more about Elizabeth, visit her website: www.thesecrethealer.co.uk.

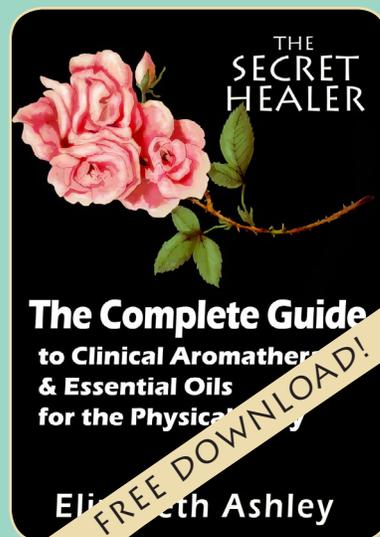
THE SECRET HEALER



A Series of Aromatherapy Manuals by Elizabeth Ashley

- Understand essential oils better
- Treat clients more effectively
- Secure more referrals
- Supercharge your healing business!

Available as Ebooks and paperbacks. Only on Amazon.



Download your free copy of The Complete Guide to Clinical Aromatherapy & Essential Oils for the Physical Body today at www.thesecrethealer.co.uk

FOR AROMATHERAPISTS WHO MEAN BUSINESS!



Ashi 
 Aromatics Inc.



Animal Aromatherapy Practitioner Certification Course[®]

www.animalaromatherapy.com

(828) 898-5555



Essential Oil Therapy for Attention Deficit/Hyperactivity Disorders (ADHD)

by Lisa N. Zochert



Abstract

An overview of attention deficit/hyperactivity disorders and data is given to demonstrate the current prevalence of ADHD in both children and adults. Connections of ADHD to other comorbidities including anxiety, depression, and sleep disturbances are also reviewed. There is discussion about the possible concerns that some have over the use of medications to treat ADHD and the growing desire for those affected to consider complementary and alternative medical (CAM) options as an alternative to drug therapy. Multiple CAM therapies are presented, and the appropriateness of essential oils to be included as part of those therapies is argued. Although there is insufficient research at this time, the need for more research is supported and possible essential oils for research consideration are examined.

Essential Oil Therapy for Attention Deficit/Hyperactivity Disorders (ADHD)

The Center of Disease Control and Prevention (CDC) data collection from 2012-2014 revealed that 10.2% of children between the ages of five and seventeen years of age have been diagnosed with ADHD.¹ Further statistics report the prevalence of ADHD in the U.S. adult population at 4.4%.¹ Add to these statistics that the diagnosis of ADHD by medical professionals was reported to increase an average of approximately 5% per year from

2003 to 2011, an alarming 43% increase in US schoolchildren according to data taken from the National survey of Children's Health.^{3,4}

With growing numbers of people being diagnosed with ADHD, it's easy to conclude that the number of people affected by ADHD will continue to increase unless a cause for ADHD can be identified and addressed in the future. In the meantime, there are millions of people throughout the world that are seeking assistance in managing attention deficit disorder and the effect it has on their daily living.

Defining ADHD

A discussion of possible therapies for assisting in the management of the symptoms of ADHD requires that we understand the definition of ADHD as written by the Diagnostic and Statistical Manual of Mental Disorders. To provide further clarification, please note that although the terms ADD and ADHD are often used interchangeably, the current correct medical terminology is ADHD or Attention Deficit/Hyperactivity Disorder.⁵

Overview of the DSM-5™ Medical Classification System for ADHD⁶

The DSM-5™ primary definition of ADHD is, "a persistent pattern of inattention and/or hyperactivity-impulsivity that

interferes with functioning or development.” It should be also be noted, in an effort to accurately reflect the many attributes of ADHD, the DSM-5™ further categorizes Attention Deficit/Hyperactivity Disorder into three subtypes:

- Predominantly Inattentive Presentation
- Predominantly Hyperactive/Impulsive Presentation
- Combined Presentation.

Although the etiology of ADHD is largely unknown, there has been significant proof of genetic links between some of the forms of the disorder.⁷ Further research identifies differences in brain metabolism, development, and volume in various brain structures in those diagnosed with ADHD.⁸

Medication and ADHD

Two main types of drugs are prescribed to both children and adults with ADHD; stimulants and non-stimulants. The two classes of drugs work to balance and improve neurotransmitters functioning in the brain and body. However, due to serious possible side effects of drug therapy, many patients and their families are looking for less intrusive methods for helping to manage ADHD symptoms.

Increased Use of CAM Modalities in Western Medicine

CAM, or complementary and alternative medicine, has its roots in many ancient



societies. Similar methodology and herbs can be found in complex medical systems including Chinese medicine, Ayurvedic, Hikmat, and Native American medicine. These therapies are often considered not only to be valid because of their longevity, but the diversity of their use.⁷

A push from consumers is forcing medical professionals to look more closely at scientific proof of the effectiveness of complementary and alternative medicine. A combined result of research studies, and information accessibility to consumers via sources such as the internet, has more medical programs incorporating CAM into their offerings for patients.

CAM Modalities Used to Treat ADHD

Because of the sometimes-concerning side-effects of drug therapy, patients, doctors, and researchers continue to experiment with non-drug therapies to either supplement the effectiveness of medications, or replace them altogether. Alternative treatments for ADHD that have been researched include: Diet, omega-3, probiotics, vitamins, botanicals, aromatherapy, mind-body medicine, neurofeedback, massage/chiropractic

manipulation, yoga, meditation and music therapy, homeopathy, and lifestyle changes.

Prevalence of CAM in Treating ADHD

In one survey, parents that have reported using CAM therapies with their children is at 54%, with only 11% of those same parents discussing those therapies with their physicians.⁷ This data is in contrast with a study conducted in Australia that details 64% of parents indicated that their pediatricians were aware of their use of CAM treatments with their children.

The difference in the number of parents sharing their treatment plans with doctors is an interesting statistic. It lends to the belief that the degree to which parents can feel comfortable admitting to CAM treatments is, at least in part, because of the way they perceive doctors will respond to the information. It would be interesting to have further research conducted to see if there is a correlation between the cultural acceptance of CAM therapies and the percentage of those therapies being shared with doctors.

Essential Oils as a Method of Treatment for ADHD

Small sample size and the relatively low number of scientific research studies that have been conducted on the effectiveness of using essential oils as a method of treatment, limit the amount of hard data currently available on the subject. However, one just needs to search the web to find that there are hundreds, possibly thousands, of people reporting anecdotal evidence that essential oils

are making a difference in their own or their children's ADHD symptoms.

Although the study of essential oils and their use in the treatment of ADHD may be limited, there is significant data showing the correlation between mood, emotion, behavior, and neural activity.^{9,10,11} The most complete scientific study to date was done in 2001 by Dr. Terry Friedman. The case study was conducted between 1999-2001. It involved forty children between six and twelve years old. Twenty of the children served as a control group and twenty children were diagnosed with ADHD.



The essential oils that were used in the study were lavender (*Lavandula officinalis*), vetiver (*Vetiveria zizanioides*), cedarwood (*Cedrus atlantica*), and Brain Power [which is a blend of frankincense (*Boswellia carteri*), sandalwood (*Santalum album*), melissa (*Melissa officinalis*), cedarwood (*Cedrus atlantica*), blue cypress (*Callitris intratropica*), lavender (*Lavandula officinalis*), and helichrysum (*Helichrysum italicum*) essential oils]. The essential oils were tested one at a time for thirty days per essential oil; the children used an inhalation device at night and inhaled the essential oil three times daily when they were feeling “scattered.”

The children had baseline and post-treatment electroencephalograms (EEGs) to determine the effects of each essential oil on all major areas of the brain and give instant feedback. The EEG measurement only included beta and theta waves. Beta brain waves reflect those waves that are being produced by the brain

THIS PAGE: Lavender (*Lavandula angustifolia*)

when the subject is alert and/or performing a task. On the other hand, theta waves reflect the brain in the state of sleep or daydreaming, but awake.

Interestingly, the initial brain waves measured by the real-time EEG showed there was a difference between the waves of normal children compared to ADHD children. While brain waves from normal children were high in amounts of beta waves and low in the amounts of theta waves during waking hours, the reverse was true in the children diagnosed with ADHD.

Subjects were randomly divided into three different groups with six persons per group. For each of the three groups, one of three essential oils were randomly selected. The first of these oils was cedarwood (*Cedrus atlantica*); chosen because of its high concentration of sesquiterpenes making up 50% of its constituents, which improves oxygenation of the cells of the brain.¹² The second oil was vetiver (*Vetiveria zizanioides*) whose action calms and balances the nervous

system and at the same time stimulates the circulatory system. The third oil was lavender (*Lavandula angustifolia*) which has both a sedative as well as a stimulating action. It sedates part of the brain at the same time stimulating the limbic region of the brain.

Each subject in the study was given a glass bottle of their assigned essential oil to administer at home. Six subjects were given cedarwood essential oil, six were given vetiver essential oil, and six were given lavender essential oil. The subjects were asked to inhale the essential oil three times a day, using an inhalation technique that involved holding the open bottle next to the nostrils and taking three deep inhalations. At the end of thirty days, the subjects were asked to return to the clinic where they were retested on the real-time EEG.

Treatment outcome results revealed that the essential oil of vetiver improved the brain activity and reduced the symptoms in ADHD diagnosed subjects by 32%. Similar results were found with the cedarwood essential oil. In the end, vetiver essential oil was found to improve the symptoms of 100% of the children studied, while cedarwood essential oil resulted in improvement for 83%, and lavender essential oil resulted in improvement for 5%.

In addition to the EEG results, it is compelling to note that Dr. Friedman received follow up from parents of the children with ADHD stating that their behavior at home had improved for the better. In several cases, they also declared that school educators observed improved classroom performance as well. Some of the subjects even had reflections of this improvement in their report cards.¹²



Heather Godfrey¹¹ interviewed parents and therapists of boys, ages eleven to twelve years of age, to gather their impressions on the effects of essential oil treatment and ADHD. The boys chose three essential oils each; these essential oils were blended with vegetable oil to use for self-administration during class. The self-administration involved one drop of blended oil rubbed on the wrist and it was initially used in conjunction with relaxation exercises. The blend could also be used in a bath at home.

The connection seemed to be one of using the scent as a connection to positive memory cues to help students. The parents interviewed reported that although the oils helped to “calm” the boys, they did not decrease the underlying ADHD symptoms.

Godfrey also reported that of the families using oils, the method of use was: 75% diffusion, 50% bath, 50% massage. In the end, the results showed 75% of them found essential oils to be effective and 50% found them to be calming.¹¹

Godfrey provided a variety of essential oils for testing which included: Blue gum eucalyptus (*Eucalyptus globulus*), geranium (*Pelargonium graveolens*), lavender (*Lavandula officinalis*), peppermint (*Mentha x piperita*), Roman chamomile (*Anthemis nobilis*), clary sage (*Salvia sclarea*), mandarin (*Citrus reticulata*), cedarwood (*Cedrus atlantica*), rose (*Rosa x damascena* or *Rosa x centifolia*), neroli (*Citrus aurantium* var. *amara* (flos)), ylang ylang (*Cananga odorata*), sweet orange (*Citrus sinensis*), bergamot (*Citrus bergamia*), and frankincense (*Boswellia carteri*).

How to Choose Essential Oils for Treatment

When considering the different types of ADHD as defined by the DSM-5TM, it is appropriate to reflect upon the profiles of individual essential oils, their chemical and emotional properties, and the input of the person who will be using them. These characteristics should be noted and the obtained information applied to choose those essential oils that may most closely achieve the desired outcome. A recent article written by Haly JensenHof, BS, MA, PC, RA,¹³ points out the crossover of many symptoms of anxiety disorders and ADHD. The diagnosis of anxiety as a comorbidity of ADHD is very common. In fact, there are studies that put the dual diagnosis of ADHD and anxiety at 25%.¹⁴ This information supports the appropriateness of trying essential oils that treat anxiety for those diagnosed with ADHD.

Essential Oils to Consider for Further Testing

- Basil (*Ocimum basilicum*) essential oil is reported to help with anxiety, depression, fatigue, insomnia, and nervous tension.
- Cedarwood (*Cedrus atlantica*) essential oil was found to be very effective in Dr. Friedman’s study and he recommended its use if vetiver essential oil was not available. Cedarwood essential oil is sedative to the nervous system, a stimulant to the circulatory system and a tonic. It is very effective at helping with nervous tension and stress-related conditions. Its uplifting, grounding qualities make it a terrific option.



- Frankincense (*Boswellia carteri*) essential oil is sedative and a tonic. Frankincense essential oil helps with anxiety, nervous tension, and stress related conditions. It is often used to help with meditation and relaxation and it can assist in deeper, slower breathing.
- Lavender (*Lavandula officinalis*) essential oil is an easily located essential oil that works as a sedative as well as a stimulant. It has been shown to help with depression, hypertension, insomnia, nervous tension, and stress. Its calming, relaxing, and balancing qualities make it a good overall choice for many needs.
- Marjoram (*Origanum marjorana*) essential oil has actions that are sedative, tonic, and nervine. It is helpful in treating insomnia, nervous tension, and stress-related conditions.
- Rosemary (*Rosmarinus officinalis*) essential oil has nervous system and mental stimulating qualities. It helps with memory and mental clarity, in addition to being a tonic to the nervous system. It is often found to be useful when studying and can help with recall of information.
- Vetiver (*Vetiveria zizanioides*) essential oil is calming, grounding, sedative to the nervous and mental system, a tonic, and it is uplifting. It helps with depression, insomnia, and nervous tension. It is known as the “oil of tranquility.”
- Ylang Ylang (*Cananga odorata*) essential oil works as a regulator to mood, it is sedative to the nervous system, stimulating to the circulatory system, and it is a tonic. It has strong sedative, soothing, and calming qualities. It assists with depression, insomnia, nervous tension, and stress-related disorders.
- Lemongrass (*Cymbopogon citratus*) essential oil and citronella (*Cymbopogon nardus*) essential oils are both extracted from aromatic grasses, and they are similar in their therapeutic properties to vetiver essential oil, yet their aromas are more citrus-y. Further studies of these two essential oils should be considered to see if they are as effective as vetiver essential oil in the treatment of ADHD.

Conclusion

The results of Dr. Friedman and Ms. Godfrey’s studies, the increasing number of people being diagnosed with ADHD, and the desire of patients to have alternative treatments to drug therapy all support the need for further scientific studies on the use of essential oils in the treatment of ADHD symptoms. ADHD is considered non-curable, but symptoms may be improved with combinations of nutrition, cognitive/behavioral therapies, and other CAM modalities.

For those interested in non-drug alternatives for managing ADHD symptoms, the known

effects of essential oils on the central nervous system, as well as providing relaxation, mental clarity, focus, and emotional support, qualify aromatherapy as a strong addition to the arsenal of therapies available to minimize the effects of ADHD on daily functionality.

References:

1. Cdc.gov website (2016). Retrieved from Center for Disease Control: <http://www.cdc.gov>
2. National Resource Center on ADHD website, A Program of CHADD. (n.d.). Retrieved from Help 4 ADHD: <http://www.help4adhd.org/statistics> [Link was inactive at time of publication.]
3. Visser S, D. M. (2014). Trends in the Parent-Report of Health Care Provider-Diagnosis and Medication Treatment for ADHD disorder: United States, 2003–2011. *J Am Acad Child Adolesc Psychiatry*, 53(1):34–46.e2.
4. George Washington University Milken Institute School of Public Health. (2015, D. 8. (n.d.). New report finds 43 percent increase in ADHD diagnosis for US schoolchildren: Girls showed a sharp rise in ADHD diagnosis during eight-year study period. *ScienceDaily*. Retrieved February 9, 2017, from <http://www.sciencedaily.com/releases/2015/12/151208150630.htm>
5. Michelle Frank, P. a. (1998). ADHD Facts. Retrieved from ADDA website: <https://add.org/adhd-facts/>
6. APA. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. Fifth edition. Washington, DC: American Psychiatric Association.
7. McCarthy, H. S. (2013). Attention network hypoconnectivity with default and affective network hyperconnectivity in adults diagnosed with attention-deficit/hyperactivity disorder in childhood. *JAMA Psychiatry*, 70(12), 1320-1337. doi: [10.1001/jamapsychiatry.2013.2174](https://doi.org/10.1001/jamapsychiatry.2013.2174).
8. Sadiq, A. J. (2007, August 30). Attention-deficit/Hyperactivity Disorder and Integrative Approaches. Retrieved from Helio website: <http://www.healio.com/journals/psycann/2007-9-37-9/%7B9036d701-1a5a-4302-92db-2223b5185d90%7D/attention-deficithyperactivity-disorder>
9. Herz, R. (1999). *The olfactory system and the link to memory*. Philadelphia: Monell Chemical Senses Centre.
10. Robin. (2000). Research update on AHD. Retrieved from: <http://www.org/content/research/update.htm> [Link was inactive at time of publication.]
11. Godfrey, H. (2001). The role of essential oils in the treatment and management of attention deficit hyperactive disorder. *International Journal of Aromatherapy*, 11(4), 193-200. doi:10.1016/s0962-4562(01)80035-7.
12. Friedmann, T. S. (n.d.). ADHD Treatment for attention deficit hyperactivity disorder using pure essential oils. Retrieved from Dr. Friedmann Essential Oils: <http://files.meetup.com/1481956/ADHD%20Research%20by%20Dr.%20Terry%20Friedmann.pdf>
13. NAHA Journal 2012.3, Jenson-Hof, Haly, Effect of Scent on Emotionally Disturbed Children, p.7.

14. Schatz, D. B. (2006). ADHD with comorbid anxiety a review of the current literature. *Journal of Attention disorders*, 10(2), 141-149.

About Lisa Zochert:

In addition to being a Certified Integrative Aromatherapist from the Institute of Integrative Aromatherapy, Reiki Master/Teacher, and Mindfulness/Meditation Coach, Lisa is a parent, sibling, and educator of people with special needs. Drawing on her unique personal experience, she works with caregivers, service providers, and school districts to advocate and support special education students and their families. You can learn more about Lisa by visiting her websites at: www.aromacentered.com and www.effectivedisabilityadvocate.com.



Aroma Centered
Specializing in Products
Formulated to Support
Cancer Patients
&
Alternative Treatment Options
for
Autism and ADD/ADHD

Individualized Consultations
Customized Blending
Educational Classes & Workshops
Educator & Speaker

Lisa Zochert, BS, MS, IAC
Integrative Aromatherapy® Certified
Reiki Master/Teacher
Mindfulness/ Meditation Coach

AromaCentered.com



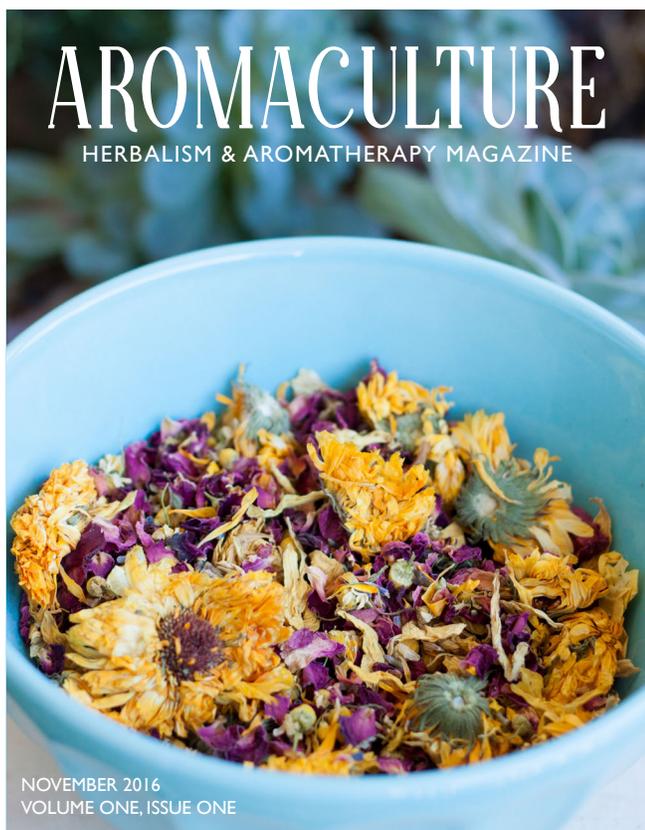
Owned by Amy Emmett,
Clinical Aromatherapist &
Certified Natural Health
Professional

*Educational Classes
& Workshops*

*Exquisite Blends &
Diffusing Jewelry*

*Personal &
Business
Consultations*

blossomsandblends.com



NEW HERBALISM & AROMATHERAPY MAGAZINE
www.aromaculture.com/the-magazine

Now accepting submissions for educational articles, recipes and case studies.

NAHA PRESENTS

Expand Your Knowledge

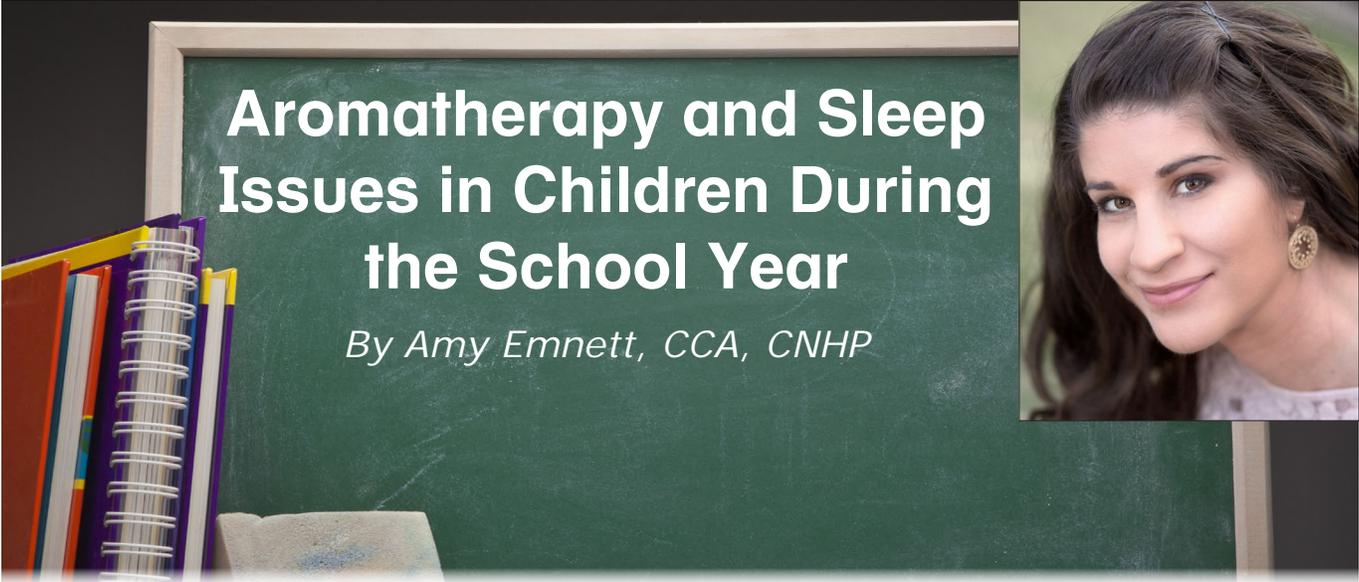


Aromatherapy Classes & Events:

Aromatherapy Education is an invaluable investment in your life, health, and career. Visit our [Calendar of Events](#) to see upcoming learning opportunities.

Looking for a NAHA-Approved aromatherapy school or educator?

Find a comprehensive list on our [Schools webpage](#).



Aromatherapy and Sleep Issues in Children During the School Year

By Amy Emmett, CCA, CNHP



Every year was the same yet it still seemed to come out of nowhere. I'd enter the doors of my local department store shortly after the fourth of July, just to be blindsided with school supplies and large signs with pencils on them. The words "Back to School" glared at me and my heart would start pounding. Part of me was sad to leave behind the summer fun, but part of me was giddy with excitement. A new school year meant new students, new supplies, and a fresh new start. The teacher in me was ready to embark on this new adventure.

But as with every new beginning comes some transitional difficulties. For children who slept in all summer, it can be a rude awakening to hear the alarm clock blaring at 6:00 a.m. Nervousness over a new school or teacher can cause their minds to become cluttered with worry, making it difficult to sleep throughout the night. Parents are now looking for natural options to assist their child to get a good night's sleep allowing them to conquer the day. In this article, we will look at sleep issues regarding the start of a new school year and how aromatherapy can assist in children aged 5-12 years old.

General Safety Considerations

I have chosen gentle yet effective essential oils to discuss in this article. Children really don't need chemically reactive essential oils to bring their body back to balance. A gentle push is all that is needed. Essential oils should be used cautiously and with intention when it comes to children. Involve them in the process of choosing an essential oil blend so that they gain respect for these potent botanical remedies. If you educate yourself on safe usage, essential oils can be a powerful tool to keep your family happy and healthy.

The Bedtime Battle

The recommended sleep time for this age group (5-12 years old) ranges from 10-12 hours a night. Adequate sleep is necessary to maintain optimal health. It directly impacts physical and emotional development. In order for students to successfully process and develop their academic skills, they need proper sleep. Essential oils should not be used as a crutch to lull children to sleep every night. However, if the child is having difficulty sleeping for short periods of time, essential oils boast sedative qualities which can relax and

help them settle down for a good night's sleep. Some kid-friendly suggested essential oils are:

Petitgrain bigarade (*Citrus aurantium* var. *amara* (fol)) essential oil is derived from the leaves of the bitter orange tree. It has a woody orange aroma with a hint of floral. It is high in linalool and linalyl acetate which research has shown to have a sedative effect on the central nervous system.¹ It can stop a racing mind and relieve feelings of anxiety and stress. It is great for the child who cannot turn off his/her brain at night.

Green mandarin (*Citrus reticulata*) essential oil has a sweet and fruity aroma and it is derived from a fruit rind. Green mandarin tends to be the most calming of the citrus essential oils. Children especially love the fact that the drops come out green! Like all of the citrus essential oils, it is uplifting and offers immune support due to its high percentage of d-limonene.² It is fantastic to help one to settle down, especially when combined with essential oils of a gentle, calming nature, such as lavender (*Lavandula angustifolia*) and Roman chamomile (*Chamaemelum nobile*).

Atlas cedarwood (*Cedrus atlantica*) essential oil has a mild, woody aroma. It is derived from the wood of the cedar tree and it offers a sense of grounding. It calms fears and builds confidence. I have found this essential oil to be helpful for the child who

has nightmares or who is afraid of the dark. It is very powerful for those who have difficulty falling asleep and staying asleep.

The Repeat Snoozer

Some children, especially as they get older, have more difficulty in getting out of bed in the morning. They tend to repeatedly hit the snooze button and moan and groan as you try to convince them to awake from their beloved slumber. Simply drop these essential oils in

their bedroom diffuser to get them up and moving.

Pink grapefruit (*Citrus x paradisi*) essential oil has a sweet yet tangy aroma derived from the fruit rind. It is almost impossible not to get up and move when diffusing this essential oil. It is cheerful and makes you feel more alert. It is like a burst of energy in a bottle. It is helpful to get a child out

of their slumber with a smile on their face and ready to tackle the day.

Peppermint (*Mentha x piperita*) is the quintessential energizing essential oil. Its strong mental aroma stimulates the senses³ and reduces feelings of fatigue. It promotes clarity while awakening a sluggish child who can't seem get a jumpstart on the morning's activities. It motivates and refreshes. It adds an element of vibrancy and positive dynamics to any situation.



Lime (*Citrus aurantifolia*) essential oil has a radiant, sweet and sparkling citrus aroma. I have found that a quality steam-distilled (not expressed) lime essential oil is reminiscent of a lime Popsicle. Children really resonate with its candy-like scent. It is almost like having a sugar rush without having to ingest sugar! It's a bottle of sunshine and it can lift a child out of a funk quickly and effectively.

Methods of Application

I recommend inhalation of an essential oil blend as the primary delivery method for the issues we are addressing in this article. Inhalation is safe, simple, and effective. One word of caution regarding inhalation: Let the child inhale the cap of an essential oil bottle first and gauge their reaction. If it instills a negative response, disregard using this essential oil with the child. This applies to both physical and emotional responses. If they don't enjoy the aroma, they definitely won't find it calming or a cheerful start to their day! The wonderful thing about essential oils is that they are all so multifaceted and there are many essential oils to choose from. The sky's the limit!

One way to utilize essential oils is by using an aromastick. Aromasticks are personal and portable. Children can keep them in their desk or book bag and bring them out when needed. Place around ten drops of an essential oil onto an organic cotton wick. (I recommend organic,

since cotton is a heavily pesticide-sprayed crop.) Then, place the cotton wick in a vented tube with the lid on to keep the aroma trapped in the tube. You simply untwist and inhale when needed. Easy and effective! Another

easy way that children can benefit from essential oils is by wearing diffusing jewelry. One advantage of wearing jewelry is that it on their body, allowing easy access. They can simply bring it to their nose to inhale when needed. Only one drop on the provided disc is needed for a necklace. The aroma usually lasts for days. For lava bead bracelets, apply the essential oil with a cotton swab directly to the lava bead and wait for it to be fully absorbed before placing the bracelet on your child.

The last method of use is room diffusion through an ultrasonic diffuser. Simply place a few drops of an essential oil into the water reservoir and turn it on. Refer to the manufacturer's instructions for use for specific quantities and how to use it. Diffuse for 15-20 minutes then turn it off for at least an hour.

Continuous diffusion is not recommended nor is it more effective than intermittent diffusion. If your child is battling an issue that requires an extra push, then choose diffusing intermittently more often during the day, rather than running the diffuser continuously. For example, if they are battling a cold, it is better to diffuse for fifteen minutes every couple hours than for two hours continuously.



Lime (*Citrus aurantifolia*)

Final Thoughts

Aromatherapy is such a beautiful modality to help ease into transitions. Not only can it support the physical body, but it can provide emotional support to the child who needs a

little extra TLC. Using botanical remedies with your children can create bonding experiences and foster lasting memories. Teach your children about the power of plants to enhance their lives and you have given them invaluable wisdom to pass down to future generations.

Sweet Dreams! Pillow Spray Recipe

Ingredients:

2 oz. grain alcohol

Essential Oils:

2 drops Roman chamomile

(*Chamaemelum nobile*)

5 drops cedarwood (*Cedrus atlantica*)

6 drops lavender (*Lavandula angustifolia*)

7 drops green mandarin

(*Citrus reticulata*)

Directions for Making and Use:

Combine the alcohol with the essential oils in a 2 oz. bottle with a spray fitting. Mix well. Shake the bottle and spray directly onto pillows and sheets before sleep.

Wake Me Up! Aromatherapy Diffuser Recipe

To motivate and to help awaken the sleepy child on a school morning.

Essential Oils:

3 drops lime (*Citrus aurantifolia*)

2 drops pink grapefruit (*Citrus x paradisi*)

1 drop peppermint (*Mentha x piperita*)

Directions for Use:

Add the essential oils to the aromatherapy diffuser, as per the manufacturer's instructions for use.

References:

1. Elisabetsky E, Coelho de Souza GP, Dos Santos MA et al (1995) Sedative properties of linalool. *Fitoterapia* 66:407-414
2. Del Toro-Arreola S, Flores-Torales E, Torres-Lozano (2005) Effect of d-limonene on immune response in BALB/c mice with lymphoma. *International Immunopharmacology* 5:829-838
3. Umezu T, Sakata A, Ito H (2001) Ambulation-promoting effect of peppermint oil and identification of its active constituents. *Pharmacology Biochemistry & Behavior* 69(3-4):383-390

About Amy Emmett:

Amy Emmett is a clinical aromatherapist and certified holistic health professional. She is the owner of Blossoms+Blends Aromatherapy, located in St. Louis, Missouri, where she resides with her husband and three small children. She brings together her knowledge of aromatherapy, nutrition, herbs, and flower essences to create a holistic picture for her clients. She is a passionate educator who empowers others through engaging classes and workshops.

Amy is NAHA's Missouri Regional Director. She is an avid learner who enjoys sharing the beauty of aromatherapy with others to help them achieve their wellness goals. To learn more about Amy, visit her website at:

www.blossomsandblends.com

The Use of Rosemary Essential Oil with Memory Issues

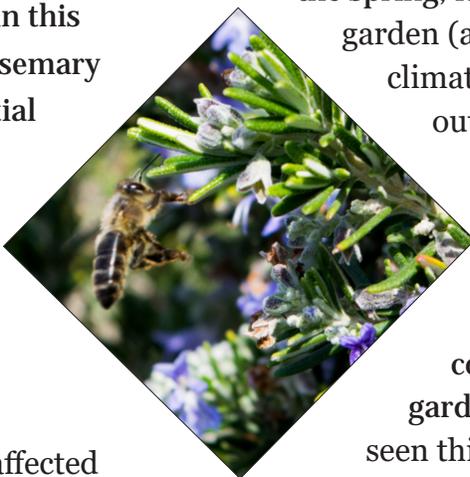
by Sharon Falsetto (BA) Hons,
NAHA Certified Professional Aromatherapist®



Introduction

In the words of the great English poet and playwright William Shakespeare (1564-1616), “There’s Rosemary, that’s for remembrance” (Hamlet, Act IV, Scene Five). This most unassuming herb of the plant world does, in fact, possess a great many characteristics but it is its association with memory that we will be looking at more closely in this article. We will discover that rosemary (*Rosmarinus officinalis*) essential oil metabolizes into several variations with regard to its essential oil constituents, and understanding each of these variations can help us to use it to its fullest potential.

Cognitive performance can be affected in any stage of life, sometimes reduced by stressful events, or simply by the effect of aging. But although memory loss is a distressing condition that affects a great many people, to varying degrees, it hits most cruelly when our bodies (and minds) age. Synthetic drugs have limited use in this area of study. However, clinical studies in the use of rosemary essential oil is producing some encouraging results in how this plant might be able to help.



Botanical Spotlight on Rosemary

Rosemary (*Rosmarinus officinalis*) is a member of the *Lamiaceae* plant family. A perennial woody herb, with highly aromatic leaves, rosemary is an evergreen shrub which produces lavender-blue or pink-lavender flowers. Although it traditionally flowers in the spring, it can be an early bloomer in the garden (as early as December in warmer climates) and may produce flowers outside of its traditional flowering season.

Rosemary is indigenous to the Mediterranean region but it grows in any comparable climate. In my garden in northern Arizona, I have seen this shrub flourish both under hot and wet conditions. Rosemary has spiky, green, needle-shaped leaves which are reminiscent of fir needles in shape. Both the leaves and flowering tops are harvested and distilled for use as an essential oil.

Essential Oil Chemotypes

Rosemary has traditionally produced three main chemotypes: ct. camphor, ct. cineole, and ct. verbenone.¹ However, other chemotypes that exist in today’s world include ct. borneol, ct. bornyl acetate, ct. myrcene, and ct. pinene.^{2,3}

A chemotype is the different *internal* chemical composition of a plant; its external appearance, and the genus and species, appear the same. Essentially a chemotype is a *subspecies* of a plant.⁴ This means that some plants, when extracted for essential oil, produce a malady of chemical compositions, producing a variance in therapeutic properties of an essential oil.

These changes may occur naturally in the wild or they may be the result of cross-pollination. Other factors which affect the variance in chemotypes in a plant include the elevation at which the plant was grown, the growing conditions of the plant, climate, and various environmental factors.⁵ It can even depend on the time of collection of the rosemary plant for distillation.⁶

A few plants, such as rosemary, seem to have a tendency towards this variance of chemical constituents.

Rosemary as an Essential Oil

Rosemary essential oil has a fresh, camphoraceous aroma (depending on the chemotype) with subtle undertones of mint. It typically contains the following chemical components; the names in bold represent the various chemotypes of rosemary essential oil:

- **borneol**, linalool, and terpineol
- **camphor**, thujone, and **verbenone**
- **1,8-cineole**
- camphene, **pinene**, limonene, and **myrcene**
- **bornyl acetate** and fenchyl acetate
- caryophyllene and humulene
- cuminic aldehyde.³

Table 1 shows the typical chemotype content for each chemotype.

Table 1: Rosemary Chemotypes and Typical Chemotype Content

Chemotype	Typical Chemotype Content	Source/s
Borneol	15 - 16%	Tisserand and Young, 2014
Bornyl acetate	20.27%	Elhassan and Osman, 2014*
	11.5 – 13.3%	Tisserand and Young, 2014*
Camphor	Up to 30%	Price and Price, 2012; Tisserand and Young, 2014
Cineole	40 - 60%	Price and Price, 2012; Tisserand and Young, 2014
Myrcene	19.5 – 52.1%	Tisserand and Young, 2014
Pinene	15 - 35%	Price and Price, 2012**
	19.1 – 35.8%	Tisserand and Young, 2014
Verbenone	15 - 40%	Price and Price, 2012*
	7.6 - 12.3%	Tisserand and Young, 2014*

* This appears to be a wide fluctuation in percentage content but remember that each batch of essential oil tested has various factors which may affect its content (as discussed above).

** Pinene is listed under ct. verbenone in this reference.

The Relevance of the Many Chemotypes Present in Rosemary Essential Oil

With so many chemotypes to choose from when purchasing rosemary essential oil, subject to availability, how do you know which one is most suitable for your needs? As we

discussed at the start of this article, we are predominately looking at the suitability of using rosemary essential oil with seniors and memory problems. However, before we look at this area more closely, take a look at Table 2 which is a summary of the various chemotypes and their expected therapeutic actions.

Table 2: Rosemary Chemotypes and Their Expected Therapeutic Action

Chemotype	Chemical Family	Expected Therapeutic Action
Borneol	Alcohols	Stimulating, antiviral, bactericidal, anti-infectious, tonic.
Bornyl acetate	Esters	Anti-inflammatory, calming, balancing, antifungal.
Camphor	Ketones	Sedative, calming, digestive, analgesic, stimulant, expectorant, anti-inflammatory, wound healing, mucolytic, muscle relaxant, cholagogic, diuretic, circulatory decongestant/stimulant (vein).
1,8-cineole	Oxides	Mucolytic, anticatarrhal, expectorant, fungicidal, bactericidal.
Myrcene	Terpenes	Analgesic, bactericidal, anti-inflammatory, anti-insomnia, antipsychotic, antispasmodic.
Pinene	Terpenes	Analgesic, bactericidal, anti-inflammatory, antioxidant.
Verbenone	Terpenes	Anti-spasmodic, calming (recommended for use at bed time), anticatarrhal, expectorant, mucolytic, cicatrisant.

Dementia and Alzheimer's Disease

Dementia is an umbrella name applied to a number of symptoms associated with memory loss. The most common type of memory loss is Alzheimer's disease.⁷

Symptoms of dementia include:

- increasing memory loss
- increased difficulty in communicating effectively
- inability to focus
- increasing unreasonableness
- increased agitation
- increased anxiety
- lack of judgment
- decreased visual perception.



Although most people who suffer with dementia do so after the age of sixty-five, five percent of the population incur “early onset” dementia.⁸

Symptoms worsen over time. It may start with forgetting where you placed an object, increasing to inability to remember to pay bills on time, to forgetting how to find your way back home from a previously familiar route. Increased agitation and change in mood (aggressiveness) may follow in the latter stages of the disease and it is a very difficult disease for caregivers to watch how a loved one deteriorates. I experienced this first hand when I was working in social care in the UK many years ago, and worked in assisting caregivers obtain financial assistance for much needed help for their loved ones.

Clinical Studies with Rosemary Essential Oil: Memory in General

The use of rosemary essential oil with memory loss and, in particular, Alzheimer’s disease, has produced positive results in various clinical studies. Unfortunately, many of these studies fail to mention which particular chemotype of rosemary essential oil was used.

One study suggested increased alertness and lower anxiety scores when rosemary essential oil was given to the study group.⁹ The study group also completed math computations more accurately and more quickly than the study group who were given lavender (*Lavandula angustifolia*) essential oil. Another study also showed similar results.¹⁰

Clinical Studies with Rosemary Essential Oil: 1,8-cineole

One particular study concluded that “compounds absorbed from rosemary



aroma affect cognition and subjective state independently through different neurochemical pathways.”¹¹ Improved cognitive performance was recorded at higher levels of exposure.

Clinical Studies with Rosemary Essential Oil: Alzheimer’s Disease

A positive and encouraging study concluded that there was “some potential” for aromatherapy in helping to improve cognitive function in Alzheimer’s disease patients.¹² In the study, rosemary and lemon (*Citrus x limon*) essential oils were used in the morning, followed by lavender and orange (species not specified) essential oils in the evening. Results showed a “significant improvement in personal orientation related to cognitive function.”

Conclusions and Recommendations

In summary, given the information obtained in these studies, and our understanding of rosemary essential oil and its various chemotypes, it can be seen that rosemary essential oil has potential to assist in a form of

a holistic care package for someone suffering with memory loss.

Rosemary essential oil, in general, is a stimulating essential oil and the various chemical components found within it, seem to indicate it is successful in stimulating memory and increasing cognitive function within certain environments. Indeed, one study indicated that ct. 1,8-cineole was successful in affecting cognitive awareness.

It would appear to me that all chemotypes of rosemary essential oil would produce a

stimulating effect, although some to a greater degree than other depending upon individual chemical components. The decision between each chemotype may depend upon if there are other issues to address with a patient as well; for example, respiratory issues. The time of day at which the rosemary essential oil is used may also affect the choice of chemotype used; for example, ct. verbenone may be more useful at bed time than in the morning.

I would also consider alternating rosemary essential oil with an “opposite” blend of essential oils, i.e. a calming blend. This method

Memory Booster Diffusion Blend

Essential Oils:

- 25 drops rosemary ct. camphor
(*Rosmarinus officinalis*)
 - 30 drops lemon (*Citrus x limon*)
 - 20 drops sage* (*Salvia officinalis*)
 - 20 drops basil (*Ocimum basilicum*)
-

Directions for Making and Use:

Add the following essential oils to a 5mL glass bottle. Add an orifice reducer to the bottle, cap, and shake well. Add approximately five drops of the blend to an aromatherapy diffuser, following the manufacturer’s guidelines for use. Diffuse for twenty minutes in the morning.

Cautions: This is an extremely potent blend. Avoid use around babies and young children under the age of five years, around pets, in pregnancy, or around those with specific health conditions such as high blood pressure and epilepsy. Do not diffuse longer than the specified time, and reduce if necessary. Consult a certified aromatherapist for further advice.

*Sage has also been shown to be effective to boost memory performance.¹³

Breathe Calmly Bed Time Spray

Ingredients:

- 2 oz. distilled water
- 1 tsp grain-free alcohol

Essential Oils:

- 8 drops lavender (*Lavandula angustifolia*)
 - 6 drops rosemary ct. verbenone
(*Rosmarinus officinalis*)
 - 5 drops Roman chamomile
(*Chamaemelum nobile*)
 - 5 drops valerian (*Valeriana faurieri*)
-

Directions for Making and Use:

Combine all of the ingredients and essential oils in a spray bottle. Cap and shake well. Spray the pillow lightly before going to bed to promote easy breathing and restful sleep.

Cautions: Avoid use around babies and young children under the age of five years, around pets, in pregnancy, or around those with specific health conditions such as high blood pressure and epilepsy. Discontinue use if agitation occurs and seek professional medical advice.

was used in the study *Effect of aromatherapy on patients with Alzheimer's disease*¹¹ and produced promising results.

It may be difficult to get a patient with memory loss to apply an aromatherapy blend on a regular basis, due to change in mood and memory, so a caregiver may wish to try diffusing the essential oil blend as an alternative.

Having watched my grandfather slip slowly away into the world of Alzheimer's disease when I was in my early 20's and taking my finals at college, I only wish I had known then what I know now about the use of aromatherapy. Although research is in its infancy with how aromatherapy can be used with debilitating diseases such as Alzheimer's disease, the potential for using rosemary essential oil in this capacity is promising.

References

1. Price S and Price L. (2012). *Aromatherapy for Health Professionals*, 4th ed. UK: Elsevier Ltd. P10-11.
2. Tisserand R and Young R. (2014). *Essential Oil Safety*, 2nd ed. UK: Elsevier Ltd. P407-409.
3. Elhassan I A and Osman N M. (2014). New Chemotype *Rosmarinus officinalis* L. (Rosemary) "*R. officinalis* ct. bornyl acetate." *American Journal of Research Communication*. 2 (4), p232-240. Available from: http://www.usa-journals.com/wp-content/uploads/2014/03/Elhassan_Vol24.pdf Last accessed August 11, 2017.
4. Clarke S. (2008). *Essential Chemistry for Aromatherapy*, 2nd ed. UK: Elsevier Ltd. p134, p145.
5. Falsetto S. (2016). What is an Essential Oil Chemotype? Sedona Aromatherapie blog. Available: <http://sedonaaromatherapie.com/blog/2016/07/11/what-is-an-essential-oil-chemotype/> Last accessed August 11, 2017.
6. Lakusi D, Risti M, Slavkovska V, Lakusi B. (2013). Composition of the Essential Oils of Rosemary (*Rosmarinus Officinalis*, Lamiaceae). Available: <https://www.ncbi.nlm.nih.gov/pubmed/23472478>. Last accessed August 11, 2017.
7. Alzheimer's Association. (2016), Dementia. Available: <http://www.alz.org/what-is-dementia.asp>. Last accessed August 11, 2017.
8. Mayo Clinic. (2016). Early-onset Alzheimer's. Available: <http://www.mayoclinic.org/diseases-conditions/alzheimers-disease/in-depth/alzheimers/art-20048356> Last accessed August 11, 2017.
9. Diego M A, Jones N A, Field T, Hernandez-Reif M, Schanberg S, Kuhn C, McAdam V, Galamaga R, Galamaga M., (2016). Aromatherapy positively affects mood, EEG patterns of alertness and math computations. Available: <https://www.ncbi.nlm.nih.gov/pubmed/10069621/> Last accessed August 11, 2017.
10. Moss M, Cook J, Wesnes K, Duckett P, Aromas of Rosemary and Lavender essential oils differentially affect cognition and mood in healthy adults. Available: <https://www.ncbi.nlm.nih.gov/pubmed/12690999> Last accessed August 11, 2017.
11. Moss M and Oliver L. (2012). Plasma 1,8-cineole correlates with cognitive performance following exposure to Rosemary essential oil aroma. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736918/> Last accessed August 11, 2017.
12. Jimbo D, Kimura Y, Taniguchi M, Inoue M, Urakami K. (2016). Effect of aromatherapy on patients with Alzheimer's disease. Available: <https://www.ncbi.nlm.nih.gov/pubmed/20377818> Last accessed August 11, 2017.
13. Falsetto, Sharon, 2012, *Sage Aromatherapy Short Course*, Sedona Aromatherapie LLC.

About Sharon Falsetto

Sharon Falsetto is a UK-certified aromatherapist. She has been living in the United States since 2006 and is the founder of *Sedona Aromatherapie LLC* and the forthcoming *Sedona Aromatics School and Garden*. Sharon offers a home study aromatherapy education program: *The Linguistics of Aromatics™ Program*, approved by NAHA. Sharon is both a published author and editor in aromatherapy. She is also an aromatherapy consultant, a custom blend formulator, and a herbal studies student. She works from her garden studio in Sedona, Arizona, where she is in the process of creating her own aromatic stillroom on her one acre homestead and aromatic gardens. Sharon is the author of *Authentic Aromatherapy*, the current chief editor of the *NAHA Aromatherapy Journal*, and the NAHA regional director for Arizona. You can visit Sharon's website at: www.sedonaaromatherapie.com.



NEW DIRECTIONS
A R O M A T I C S



Certified Organic Oils Wholesale

We offer the most competitive wholesale pricing for over 800 products:

- | | |
|---|--|
| 264 Essential Oils
(MSDS, COA & GC available) | 37 Candle Waxes and Accessories |
| 109 Fragrant Oils | 42 Salon & Spa Products |
| 42 Melt & Pour Soap Bases and Accessories | 21 Botanical Extracts |
| 85 Carrier Oils | 31 Cosmetic Bases |
| | 37 Butters |
| | 17 Absolutes |



SAVE UP TO 10% OFF ON YOUR NEXT PURCHASE!

5% OFF PRODUCT USING THE COUPON CODE + 3% ONLINE DISCOUNT + 2% OFF FOR ORDERS OVER \$500.

Limited time offer. This coupon code is not valid in conjunction with any other discount coupon.
The maximum discount on any one order may not exceed 10%.



Email: info@newdirectionsaromatics.com
Phone: 1-800-246-7817, 1-877-255-7692

A Drop of Bliss....
Mindfully handcrafted gemstone bracelets,
featuring a single lava bead to hold a drop
of your favorite essential oil.
A beautiful way to Follow your Bliss!



www.fybbbracelets.com



INTERNATIONAL JOURNAL OF clinical aromatherapy

Editor: Rhiannon Lewis
Associate Editor: Gabriel Mojay

A unique resource for enhancing clinical practice
Written by practitioners for practitioners



British Columbia Association of Practicing Aromatherapists

The BCAPA was incorporated in 1994 as a society designated to support all practicing aromatherapists not only in British Columbia, but across North America. With the primary mandate of continuing education, the BCAPA presents leading experts in the field of aromatherapy to facilitate workshops including: Robert Tisserand, Rhiannon Harris, Marianne Tavares, Ann Harman, Jeanne Rose, and Valerie Ann Worwood.

We invite aromatherapists across the globe to attend our seminars and workshops and to visit the beautiful west coast of British Columbia! All workshops are open to BCAPA members and non-members.

Visit our website for
more information:
bcapa.org



The *Myrtaceae* Plant Family

by Cheryl Murphy, Certified Aromatherapist



The *Myrtaceae* plant family is a group of plants composed of over 3,300 species, consisting mainly of trees and shrubs found in the tropics, subtropics and temperate Australia.¹ Many species have aromatic, leathery leaves, containing oil glands, and flowers of white, pink, red, purple or yellow. Species of the *Myrtaceae* plant family provide many valuable products including timber, ornamental plants, food products (including spices) and essential oils. Guava, cloves and allspice are commonly used for culinary purposes. Many plants from this family are used in landscaping, the most common being common myrtle (*Myrtus communis*) an evergreen shrub. Incidentally, the popular crepe myrtle tree (*Lagerstroemia indica*) is a member of the *Lythraceae* plant family. Historically, the *Myrtaceae* plant family was very important to the Aboriginal people. These indigenous people collected water and grubs from the roots of certain trees and the wood and bark of some species were used to make tools, utensils, bowls, canoes, shields and weapons.²

The *Myrtaceae* Plant Family in Aromatherapy

The most common essential oils from the *Myrtaceae* plant family are steam distilled from the leaves and branches of the plant and are stimulating and good for the respiratory system.³ This group of essential oils is excellent for various types of skin conditions

and is useful in the treatment of muscular aches/pains as well as coughs, colds, and flu. Due to the antibacterial and antifungal properties of many of these oils, they are often included in natural cleaning products for the home.

Essential oils extracted from the *Myrtaceae* plant family are quite affordable and versatile and can be used in a variety of aromatherapy applications. However, caution must be used due to the chemical composition of some oils.

Some Essential Oils from the *Myrtaceae* Plant Family

*Editor's Note: Avoid any of these essential oils if they are old or oxidized, particularly tea tree (*Melaleuca alternifolia*) essential oil.*

Cajeput

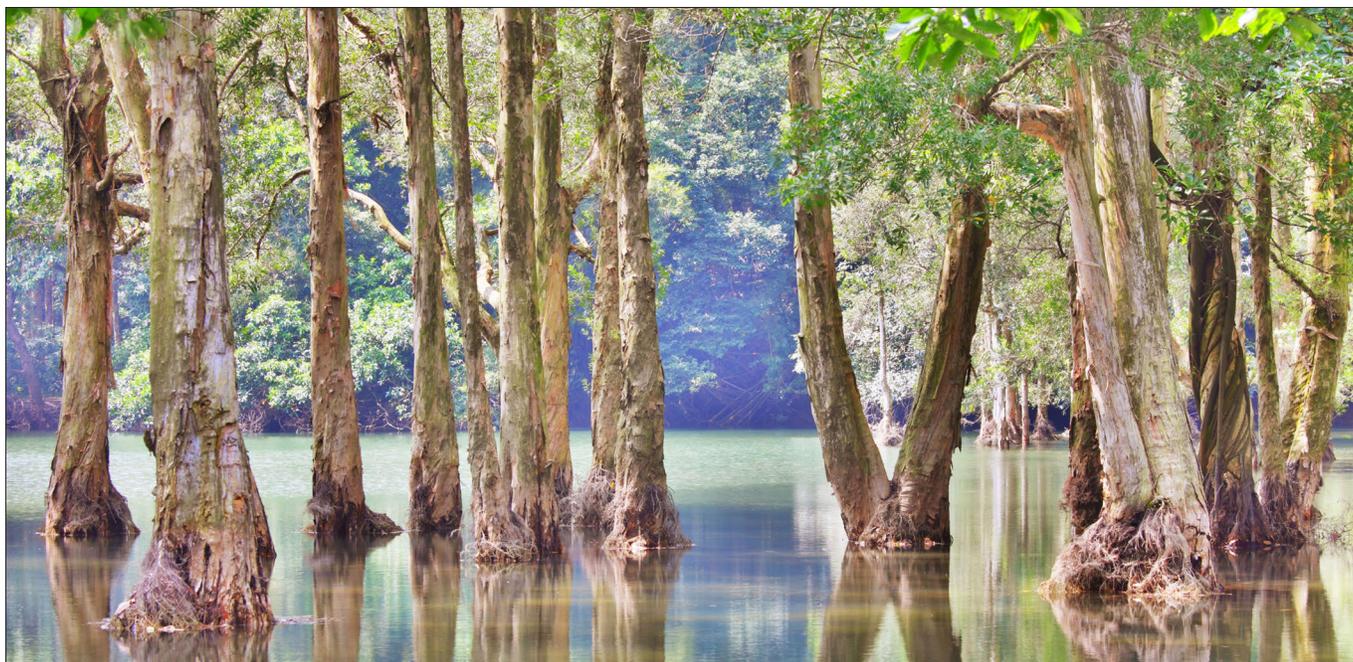
Botanical Name: *Melaleuca cajuputi*.

Plant Description: A tall evergreen tree with thick leaves and white flowers. The bark of the trunk is white and spongy and flakes off easily.

Method of Extraction: Steam distillation of the leaves and twigs.

Synonyms: *Melaleuca minor*, white tea tree, white wood, swamp tea tree, punk tree, paperbark tree.

Main Chemical Components: Monoterpenes and oxides.



Cajeput trees

Main Therapeutic Properties: Analgesic, antimicrobial, antifungal, antispasmodic, antiseptic, carminative, decongestant, expectorant, febrifuge, insecticide, mucolytic, tonic.

Uses in Aromatherapy: Insect bites, oily skin, muscle aches/pains, rheumatism, bronchitis, colds/flu, cystitis, urinary infections.

Contraindications: Due to the high levels of 1,8 cineole, avoid use with babies or children under age five. Do not use with asthmatics.⁴

Eucalyptus

There are over seven hundred different species of eucalyptus, of which nearly five hundred produce a type of essential oil.⁵ There are differences in the chemical components of the various eucalyptus essential oils which could influence the use and application in aromatherapy practice.⁶ This article will profile three of the most common eucalyptus essential oils used in aromatherapy.

1. Botanical Name: *Eucalyptus globulus*.

Plant Description: A tall evergreen tree with a smooth, gray bark. Young trees have bluish-gray leaves that are oval in shape. As the tree matures, the leaves become long, narrow and yellowish in color.

Method of Extraction: Steam distillation of the leaves.

Synonyms: Gum tree, southern blue gum, fever tree, stringy bark, Tasmanian blue gum.

Main Chemical Components: Oxides.

Main Therapeutic Properties: Analgesic, anti-rheumatic, antiseptic, antiviral, decongestant, expectorant, febrifuge, mucolytic, stimulant.

Uses in Aromatherapy: Insect bites, insect repellent, muscular aches, rheumatoid arthritis, asthma, bronchitis, catarrh, coughs, colds/flu.

Contraindications: Due to its 1,8 cineole content, *Eucalyptus globulus* essential oil may cause central nervous system (CNS) and breathing problems in young children. Do not use on or near the face of children under ten years of age.⁴

2. Botanical Name: *Eucalyptus radiata*.

Plant Description: A tall evergreen tree with a weeping habit and a dense, spreading, crown, leaves are glossy and tapered, gray-brown bark.

Method of Extraction: Steam distillation of the leaves.

Synonyms: Narrow leaf peppermint gum, *Eucalyptus australiana*.

Main Chemical Components:
Monoterpenes, oxides.

Main Therapeutic Properties: Analgesic, antibacterial, anti-inflammatory, anti-microbial, anti-rheumatic, antiseptic, anti-viral, decongestant, expectorant, mucolytic.

Uses in Aromatherapy: Insect bites, insect repellent, muscular aches, rheumatoid arthritis, asthma, bronchitis, catarrh, coughs, colds/flu.

Contraindications: Due to its 1,8 cineole content, *Eucalyptus radiata* essential oil may cause central nervous system (CNS) and breathing problems in young children. Do not use on or near the face of children under ten years of age.⁴

3. Botanical Name: *Eucalyptus citriodora*.

Plant Description: A tall, slender, broadleaf evergreen tree with smooth, gray bark and narrow yellowish-green, lemon scented leaves and small white flowers.

Method of Extraction: Steam distillation of the leaves.

Synonyms: Lemon-scented gum, citron scented gum, scented gum tree, spotted gum, boabo.

Main Chemical Components: Aldehydes.

Main Therapeutic Properties: Antiseptic, antiviral, bactericidal, deodorant, expectorant, fungicidal, insecticide.

Uses in Aromatherapy: Fungal infections, insect repellent, colds, fever, sore throat.

Contraindications: Possible sensitization in some individuals.⁴

Fragonia™

Botanical Name: *Agonis fragrans*.

Plant Description: A small shrub with narrow leaves and clusters of white flowers.

Method of Extraction: Steam distillation of the leaves, twigs and branches.

Synonyms: Course tea tree, *Taxandria fragrans*.

Main Chemical Components:
Monoterpenes, monoterpenols, oxides.

Main Therapeutic Properties: Mild analgesic, antibacterial, anti-inflammatory, antifungal, antimicrobial, antiseptic, expectorant, nervine.

Uses in Aromatherapy: General skin care, cuts, stings, muscle aches, arthritis, bronchitis, coughs/colds, anxiety, depression, emotional blockages, grief, insomnia, mood swings, stress.

Contraindications: None.

Kunzea

Botanical Name: *Kunzea ambigua*.

Plant Description: A low growing shrub with masses of fluffy, white, scented flowers.

Method of Extraction: Steam distillation of the flowering plant.

Synonyms: Tick bush, white tick bush, white Kunzea, poverty bush.

Main Chemical Components: Monoterpenes, oxides, sesquiterpenols.

Main Therapeutic Properties: Analgesic, anti-anxiety, antibacterial, anti-inflammatory, antimicrobial, insect repellent.

Uses in Aromatherapy: Congestion, sinus headaches, inflammation, muscle soreness, insect repellent, stress and anxiety.

Contraindications: None.



Manuka (*Leptospermum scoparium*)

Manuka

Botanical Name:

Leptospermum scoparium.

Plant Description: A small to medium sized bushy, evergreen shrub with pink or white flowers and prickly leaves.

Method of Extraction: Steam distillation of the leaves, twigs and branches.

Synonyms: New Zealand tea tree, kahikatoa, red Manuka, manex.

Main Chemical Components: Ketones, sesquiterpenes.

Main Therapeutic Properties: Analgesic, antibacterial, antifungal, antihistamine, anti-inflammatory, antimicrobial, antiseptic, astringent, deodorant, expectorant, insecticide.

Uses in Aromatherapy: Acne, sensitive skin, ringworm, fungal infections, athlete's foot, itching, bedsores, dandruff, eczema, sunburn, oily skin, cracked skin, insect bite/stings, muscular aches/pain, stiff joints, colds, coughs, flu.

Contraindications: None.

Tea Tree

Botanical Name: *Melaleuca alternifolia*.

Plant Description: Small tree or shrub with needle-like leaves and heads of yellow or purple flowers.

Method of Extraction: Steam distillation of the leaves.

Synonyms: Narrow-leaved paperbark tea tree, ti-tree, ti-trol, melasol.

Main Chemical Components:

Monoterpenes, monoterpenols.

Main Therapeutic Properties: Antifungal, anti-infectious, anti-inflammatory, antiseptic, antiviral, expectorant.

Uses in Aromatherapy: Acne, athlete's foot, blisters, burns, cold sores, dandruff, herpes,

insect bites, oily skin, rashes, warts, infected wounds.

Contraindications: None.

References:

1. Encyclopedia Britannica Online, *Myrtaceae*, accessed July 2017. <https://www.britannica.com/plant/Myrtaceae>
2. Australian National Botanical Gardens website, *Family Myrtaceae*, accessed July 2017. <https://www.anbg.gov.au/PLANTFAM/AUST1C.HTM>
3. Caddy, Rosemary, *Essential Oils in Colour*, UK: Amberwood Publishing, 1997.
4. Tisserand, Robert and Rodney Young, *Essential Oil Safety*, Edinburgh: Churchill Livingstone, 2014, 2nd edition.
5. Lawless, Julia, *The Encyclopedia of Essential Oils*, San Francisco: Conari Press, 2013.
6. *Aromatic Notes* website, *Three Different Types of Eucalyptus Oils*, accessed July 2017. <http://sedonaaromatherapie.com/blog/2014/02/24/three-different-types-of-eucalyptus-essential-oil/>

Yoga Mat Refresher

Ingredients:

2 oz. tea tree (*Melaleuca alternifolia*)

hydrosol OR distilled water.

1 tsp pure grain alcohol

Essential Oils:

12 drops tea tree (*Melaleuca alternifolia*)

12 drops patchouli (*Pogostemon cablin*)

Directions for Making and Use:

Combine all of the ingredients in a 2 oz. (60ml) spray bottle and shake gently to combine. Spray onto yoga mat and wipe down with a damp cloth. Air dry before rolling mat or using again.

Colds/Congestion Stock Blend for Steam Inhalation – for Adults

Essential Oils:

10 drops tea tree (*Melaleuca alternifolia*)

20 drops blue gum eucalyptus

(*Eucalyptus globulus*)

15 drops cajeput (*Melaleuca cajeputi*)

Directions for Making and Use:

Combine essential oils in a 1/6 oz. bottle; place one drop of the blend in a bowl of steaming (not boiling) water. Drape a towel over head to create a tent, close eyes and inhale for up to five minutes.

Cautions: Avoid use with children.

About Cheryl Murphy:

Cheryl Murphy holds a BS degree in Elementary Education and a Master of Arts degree in Teaching. She has over 30 years of classroom experience and she is a professor at Virginia Western College. Cheryl graduated from *Sedona Aromatherapie LLC* as a certified aromatherapist in the Level 2 (250 hour) *Certificate in Professional Aromatherapy Course*, has completed additional aromatherapy training with *Stillpoint Studies*, and she is the NAHA Regional Director for Virginia (Southwest).

In addition to her role as an educator, Cheryl designs aromatherapy jewelry (*FYB Bracelets*) and is co-owner of *Essential Bliss*, offering bath/body products, consultations, and essential oil education. Cheryl resides in rural Virginia where she enjoys life on her mini-homestead growing her own herbs, flowers and vegetables and raising a flock of chickens.

To learn more about Cheryl, please visit her website at: www.fybbracelets.com



THE SCHOOL FOR AROMATIC STUDIES



Certificate Programs: Online or Live Classes

- Botanical Body Care Products
- Foundations of Aromatherapy
- Aromatic Scholars:
Clinical Aromatherapy Certification
- Aromatic Medicine
- Aromatic Applications for the Skin
- Aromas and the Mind
- Botanical Perfumery w/ Roxana Villa
- Butters, Balms and Salves
- Hydrosols: An Exploration w/ Cathy Skipper

Expanding the aromatherapists and herbalists
toolbox with aromatic medicine.

With Cathy Skipper and Jade Shutes

www.aromaticstudies.com



Images this page Ginger (*Zingiber officinale*)

Falling in love with ginger! Over the past couple of weeks I have found myself quite drawn to ginger (*Zingiber officinale*) and I have used it as a tea, a body scrub, a body oil, an additive into our humidifier, a divine bathing experience, and simply to inhale via direct palm inhalation. Beautiful, intoxicating, warming, and soothing.

On the days when I can feel the autumn chill in my body, I am sure to make a cup or two of fresh ginger tea with lemon and honey. I have also been using a ginger salt scrub every other day along with organic vanilla-infused jojoba (*Simmondsia chinensis*), made with vanilla beans and then adding a 2.5% dilution of cardamom (*Elettaria cardamomum*) and ginger essential oils.

About Ginger

Ginger (*Zingiber officinale*) is a herbaceous perennial of about one meter in height, with large long grass-like leaves developing from a branched rhizome. The flowers occur in a dense, scaly spike on an elongated stalk. Each flower has three yellowish orange petals with an additional purplish, lip-like structure.¹

Ginger is considered to be the most ancient spice known to humankind and has been used as food, medicine, and a spice. It enjoys a long history of use in China, India, Japan, and throughout Asia. The ancient Greeks and Romans held ginger in high regard for its medicinal and culinary uses.

Ginger is a member of the *Zingiberaceae* family which includes over forty-eight genera and 1200 species including cardamom and turmeric (*Curcuma longa*). This is a highly aromatic family of plants, with most being prized for their exotic spicy aromas and tastes.

Ginger is thought to have occurred wild throughout the East Asian crescent spanning South China, Vietnam, Malaysia and Indonesia. The perennial plant was found cultivated in earliest times in Inner Mongolia and South India. A botanical clue to the antiquity of ginger is that ginger is



propagated only by splitting the root, never from seed—a sign that it has grown for so long under human control that it has lost one of the essential characteristics of the wild plant from which it derives.²

Current world producers of ginger include: China, India, Indonesia, Nigeria, Africa, Thailand, Philippines, and Nepal. The aroma, appearance and taste of ginger can vary depending on country of origin.

There is so much great writing on ginger that I have kept the above description simple and short. If you are interested in further readings, please see the resources at the end of this article.

An Aromatic Experience

If you have a fresh piece of ginger in your fridge, go and get it. In addition, find a bottle of ginger essential oil you have on hand.

First, take a few inhalations of the essential oil of ginger. Close your eyes and hold a bottle of ginger essential oil close enough to your nose to be able to smell, waft the bottle to the left and right; inhale, observe, feel.

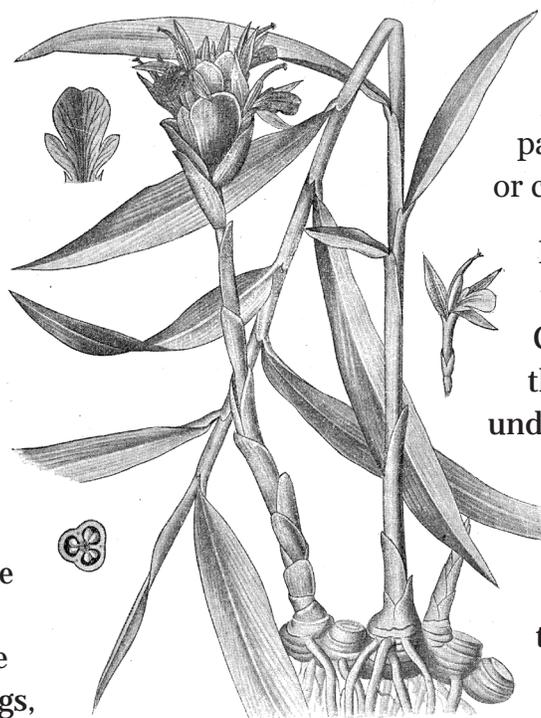
Notice its aroma, its effects on your mind/body/emotions. Then clear your nasal palate by taking a few inhalations of fresh ground coffee or coffee beans.

Next, take a few moments to cut into the fresh ginger rhizome, close your eyes, and hold the

cut piece of ginger under your nose, wafting it from left to right; take a few inhalations. Take a moment to observe its aroma and aromatic impact on your mind/body/emotions.

Take another moment to smell the fresh piece of ginger. Then clear the nasal palate by inhaling ground coffee or coffee beans again.

Now: Repeat this process with the essential oil again. Close your eyes and hold the bottle of ginger essential underneath your nose. Waft the bottle to the left and to the right; inhale, observe, feel. What differences do you note? How did smelling the fresh ginger enhance your perceptions of the ginger essential oil?



Ginger Chemistry

Ginger rhizome contains 4-10% oleoresin composed of nonvolatile, pungent principles, specifically: Gingerol, gingerdiones, and shogaols.

The essential oil is typically obtained via distillation of dried ginger root. Dried ginger root has a 1.0 to 3.3% essential oil content comprised mostly of sesquiterpenes supported by monoterpenes. Main sesquiterpene components include: Zingiberene, b-sesquiphellandrene, and beta-bisabolene. Other minor components include: b-phellandrene and camphene.

The essential oil of ginger does not contain the bitter principal components; however the CO₂ extract does. The CO₂ extract of ginger

contains 18-23% pungent components, making the Co2 extract more heating and diaphoretic than the essential oil.

Western Therapeutic Applications:

Ginger has traditionally been used for its antispasmodic, carminative, and diaphoretic properties. As both a herb preparation (tincture, infusion, powdered extract) and essential oil it is used to relieve motion sickness and nausea. Ginger is used to stimulate digestion, expectorate mucus/phlegm from the lungs, and it is indicated for use with: Flatulence, dyspepsia, colds, loss of appetite, menstrual cramps, amenorrhoea, dysmenorrhoea, nausea, and as an adjunct for arthritis and pain relief.

It is used as an anti-inflammatory and antispasmodic for dysmenorrhea, uterine fibroids, and chronic pelvic pain. It is also beneficial as an antianorectic due to appetite loss associated with cancer and HIV chemotherapeutic treatments.³

Pharmacological data and experimental data indicate two potential uses of ginger: Antiemetic and anxiolytic/antidepressant.⁴

Core therapeutic actions include:

Carminative, peripheral circulatory stimulant, antispasmodic, anti-inflammatory, diaphoretic, digestive stimulant.

Ginger and Ayurveda Medicine

In Ayurvedic medicine ginger *is the universal medicine and can be of benefit to all*. It is specifically indicated for *vāta* disorders. Ginger destroys toxins, is a digestive, prevents nausea, enkindles the digestive fire, reduces feelings of cold, is rejuvenating, alleviates cough and breathing difficulties, and alleviates

Soothe Away Anxiety Inhaler

Essential Oils:

6 drops ginger (*Zingiber officinale*)
 3 drops neroli
 (*Citrus aurantium* var. *amara* (*flos*))
 2 drops sweet marjoram
 (*Origanum marjorana*)
 4 drops mandarin (*Citrus reticulata*)

Directions for Making and Use:

Mix the synergy of essential oils together in a small bowl, then soak an inhaler pad in the essential oils. Place pad in the inhaler tube and close inhaler. Use as needed.

Cautions: Avoid use in pregnancy. Slight risk of skin sensitization.

Arthritis/Pain Relieving Gel

Ingredients:

2 oz. organic aloe vera
 (*Aloe barbadensis*) gel
 1 tbsp. arnica (*Arnica montana*)
 herbal oil
 1-2 tbsp. lavender
 (*Lavandula angustifolia*) hydrosol
 1 tbsp. German chamomile
 (*Matricaria recutita*) hydrosol*

*If not available, use more lavender hydrosol.

Essential Oils:

15 drops lemongrass
 (*Cymbopogon citratus*)
 24 drops ginger (*Zingiber officinale*)

Directions for Making and Use: Blend all of the ingredients together. Add more hydrosol if the gel has a "tacky" feel to it. Rub the gel on localized area as needed.

Cautions: Slight risk of skin sensitization.

pain. Like Traditional Chinese Medicine (TCM), Ayurveda distinguishes between dried and fresh ginger. Dried ginger is called *Sunthi* and fresh ginger is called *Ardraka*.

Uses of Fresh and Dry Ginger in Ayurveda Medicine

- Dry ginger clears *āma* from plasma and blood (for information on *āma* check the resources list at the end of this article).
- Dry ginger clears phlegm in *kapha-vāta* coughs and colds.
- Fresh ginger increases peripheral circulation and causes vasodilation and sweating.
- Dry ginger increases *agni* and the secretion of digestive enzymes.
- Useful for nausea including morning sickness,* post-operative nausea, and travel sickness.
- Fresh ginger hot tea can be used to relieve menstrual cramps.
- Dry ginger, which is more heating than fresh ginger, can aggravate pitta.

*See contraindications listed below.

Ginger and Traditional Chinese Medicine (TCM)

Both fresh and dried ginger are officinal drugs of the modern Chinese pharmacopeia. It is one of the most widely used medicinal herbs and it is believed to be used in half of all herbal prescriptions in modern China. Traditional Chinese Medicine distinguishes clearly between dried and fresh ginger. Dried ginger (*Gan-jiang*) is used to treat yang deficiencies:

“It is more effective in expelling *Interior Cold*, which is related more to the constitution of the patient while fresh ginger (*Sheng-jiang*) promotes seating and disperses *Exterior Cold* which is brought on by external factors.”⁵

Fresh ginger root is used to dispel pathogens via its ability to induce sweating. It expels cold, relieves nausea and clears toxic matter from the body. It is used for common colds due to pathogenic Wind Cold.



Ginger tea
(*Zingiber officinale*)

Dried ginger root is used to treat depleted Yang and alleviates *Cold* conditions characterized by pallor, poor appetite and digestion, vomiting, cold limbs, pale tongue, or thin, watery or white sputum.⁵ Use for Yang exhaustion syndromes with severe chilliness, slow pulse, and aching.

The essential oil of ginger warms the interior and dispels cold.⁶ It warms the Lung and transforms phlegm, warms and opens the meridians and blood vessels (indicated for scanty menstrual flow, amenorrhea, spasmodic dysmenorrhea) and Warms the Kidney and fortifies Yang (indicated when there is frigidity, impotence, cold extremities, fatigue, or diarrhea).

Dosages of the herb:⁷

Tea: 1 tbsp. grated fresh root per one cup of boiling water, 3 to 4 cups daily.

Powder: 1 to 2 grams daily.

Tincture: 1.5 to 5ml three times per day.



The Aroma of Ginger: Psychological and Spiritual Effects

Ginger's aroma is warm, spicy, and woody with a hint of lemongrass and varying degrees of sweetness.

Ginger's warm spicy sweet aroma offers the individual strength during times of depletion or loss of motivation. Ginger promotes clarity by "detoxing" negative or toxic thoughts and energy. As a root essential oil, ginger is also grounding and provides strength to move forward.

Ginger provides deep warmth and stimulation on the physiological level while its aroma (fragrance) works deeply into the psyche, bringing energy and strength to some of the deepest sources of our power. Ginger can be an ally in the process of self-empowerment, giving us the strength to meet life's challenges with an adequate vital response.⁶

The warming nature of ginger sustains and then rebuilds where there has been a loss of energy on the physical and emotional levels.⁸

Ginger essential oil can restore determination and help to boost confidence and morale. It is indicated for those who may have clear plans and good intentions, but who lack the personal drive and optimism to manifest initiative and take real or immediate action. Ginger can be a catalyst of the Will (Zhi), invoking and enhancing ones vital fire.⁹

Warming Body Oil

Ingredients:

1 oz. organic jojoba
(*Simmondsia chinensis*) or sesame seed
(*Sesamum indicum*) oil

Essential Oils:

7-8 drops ginger (*Zingiber officinale*)
6-7 drops black pepper (*Piper nigrum*)
7 drops cardamom
(*Elettaria cardamomum*)
10 drops sweet orange (*Citrus sinensis*)

Directions for Making and Use:

Combine jojoba (or sesame seed oil) with the essential oils in a 1 oz. bottle. Cap and shake well. Apply to body as appropriate.

Cautions: Slight risk of skin sensitization. Avoid use in conjunction with homeopathic remedies.

Aphrodisiac Massage Oil

Ingredients:

1 oz. organic jojoba
(*Simmondsia chinensis*)

Essential Oils:

5 drops ginger (*Zingiber officinale*)
6 drops ylang ylang (*Cananga odorata*)
3 drops cinnamon leaf
(*Cinnamomum zeylanicum*)
6 drops mandarin (*Citrus reticulata*)
4 drops cardamom
(*Elettaria cardamomum*)

Directions for Making and Use:

Combine jojoba with the essential oils in a 1 oz. bottle. Cap and shake well. Apply to body as appropriate.

Cautions: Avoid use in pregnancy. Slight risk of skin sensitization.

Digestive and Warming Tea

Ingredients:

3 to 5 pieces of fresh ginger root
(*Zingiber officinale*)

Directions for Making and Use:

Thinly slice 3 to 5 pieces of fresh ginger root, place into cup and pour boiling water over the ginger. Cover the cup with a plate and let it sit for 15-30 minutes. Remove plate and add a teaspoon or less of honey and a drop of freshly squeezed organic lemon.

Winter's Ginger Bath

Ingredients:

1/8 to 1/4 cup of grated ginger root
(*Zingiber officinale*)

Directions for Making and Use:

Place 1/8 to 1/4 cup of grated ginger root in a muslin bag, tie the bag to the faucet and let the hot water run through it as you fill up the bathtub. Alternatively, add 4-7 drops of ginger essential oil into two to three cups of sea salt and pour in water just before getting into the tub. Mmmmm!

Cautions: Slight risk of skin sensitization.



Ginger (*Zingiber officinale*)

Massage Oil for Cramps/Painful Menstruation

Ingredients:

1 oz. organic jojoba
(*Simmondsia chinensis*) or sesame seed
(*Sesamum indicum*) oil

Essential Oils:

8 drops ginger (*Zingiber officinale*)
6 drops clary sage (*Salvia sclarea*)
4 drops sweet marjoram
(*Origanum marjorana*)
5 drops mandarin (*Citrus reticulata*)

Directions for Making and Use:

Combine jojoba (or sesame seed oil) with the essential oils in a 1 oz. bottle. Cap and shake well. Apply to abdomen, in a circular motion, as needed to ease cramps.

Cautions: Slight risk of skin sensitization.

Contraindications:

- The use of ginger is contraindicated in patients with gallstones due to cholagogue effect.
- Daily doses of ginger in excess of four grams should be avoided in patients already taking blood-thinning drugs such as warfarin or aspirin or with individuals susceptible to hemorrhage.
- Avoid use of ginger for Yin deficiency with heat signs; reckless movement of hot blood; specifically to be used with caution during pregnancy.
- Use low dosages during pregnancy.

References:

1. Van Wyk, B., and Wink, M. (2004). *Medicinal Plants of the World*. Oregon: Timber Press.
2. Dalby, A. *Dangerous Tastes: The Story of Spices*. Berkeley, CA: University of California Press, 2000.
3. Romm, A. (2010). *Botanical Medicine for Women's Health*. St. Louis, MO: Churchill Livingstone Elsevier.
4. Spinella, M. (2001). *The Psychopharmacology of Herbal Medicine*. Cambridge, MA: The MIT Press.
5. Mills, S., and Bone, K. (2000). *Principles and Practice of Phytotherapy*. London: Churchill Livingstone.
6. Holmes, P. (2001). *Clinical Aromatherapy: Using Essential Oils for Healing Body and Soul*. Cotati, CA: Tigerlily Press, Inc.
7. Blumenthal, M. Editor (2003). *The ABC Clinical Guide to Herbs*. New York, NY: Thieme.
8. Zeck, R. (2008). *The Blossoming Heart*. Australia: Aroma Tours.
9. Mojay, Gabriel (1997). *Aromatherapy for Healing the Spirit*. Healing Arts Press; Rochester, VT.

Resources:

- Foster, S., *Ginger Zingiber officinale - Your food is your medicine*. Retrieved from: <http://www.stevenfoster.com/education/monograph/ginger.html>
- Pole, S. (2006). *Ayurvedic Medicine*. Philadelphia, PA: Churchill Livingstone Elsevier.
- *Ayurveda for You* website, *What is Ama?* Retrieved from: http://ayurveda-foryou.com/ayurveda_principles/ama.html

About Jade Shutes:

An aromatherapy educator for over twenty four years, Jade holds a Diploma in Holistic Aromatherapy, Holistic Massage, Anatomy and Physiology, and Reflexology from the Raworth College of Natural Medicine (UK), and a Diploma in Aromatherapy from the International Therapist Examining board (ITEC). She has studied with Jan Kusmirek, and has completed Part 1 of the Purdue University Advanced Studies of Essential Oils, holds a certificate program for Herbal Medicine, and a certificate for Spa Bodywork. She is a prolific writer and researcher and believes education is the key to empowerment when it comes to self-care. She is the owner and Director of Education for The School for Aromatic Studies. Jade is the author of the book *Aromatherapy for Bodyworkers*. To learn more about Jade, please visit her website at: www.aromaticstudies.com

Seeking Aromatherapy Education?

Visit the NAHA website for:

NAHA Approved Schools & Educators

Updated NAHA Education Standards

Educational Classes and Events

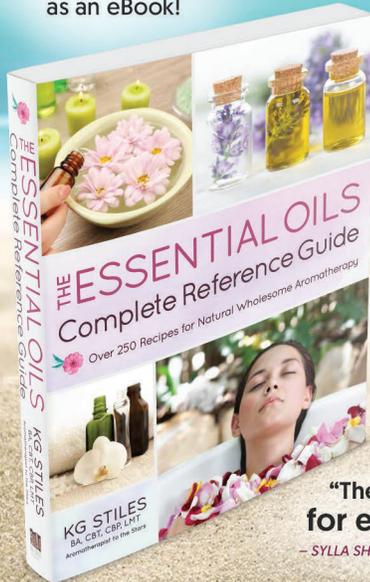
(Click on each link above to learn more)

The Essential Oils Complete Reference Guide

Over 250 Recipes for Natural Wholesome Aromatherapy

By **KG STILES** BA, CBT, CBP, LMT - Aromatherapist to the Stars

Also Available
as an eBook!



KG Stiles

**“Beautifully designed
and put together,
you will refer to this
book again and again.”**

— DR. STEVEN FARMER, best-selling author
of *Earth Magic, Animal Spirit Guides, and
Healing Ancestral Karma*

**“There’s something
for everyone in this book!”**

— SYLLA SHEPPARD-HANGER, LMT, founder and director
Atlantic Institute of Aromatherapy



Pure & Natural Living with Essential Oils

Special Offer for NAHA Readers:

15% OFF!*
Your Entire Order!

at PurePlantEssentials.com

Use Discount Code

NAHA2017

at checkout.



*Limited Time Offer - may end at any time.
Must use discount code to redeem offer.
Valid only at PurePlantEssentials.com

BEYOND AROMATICS

NAHA WOA VIII • OCTOBER 20-23, 2016 • UNIVERSITY OF UTAH CONFERENCE CENTER & BOTANICAL GARDEN

2016 CONFERENCE RECORDINGS NOW AVAILABLE!

DVD Recordings:
Full Color, Audio-Visual of each
speaker’s presentation at the
conference.

Click here to purchase.



Essential Oils for the Thanksgiving Celebration

by *KG Stiles*



Thanksgiving is celebrated in many cultures around the world. It is a day for counting your blessings, sharing your bountiful harvest and for celebrating your abundance.

One of the most well-known “Thanksgiving Day” celebrations is in the United States with its tradition of a festive dinner table set with candles and laden with turkey, pumpkin pie and all of the delightful trimmings associated with a bountiful harvest.

Prayers of gratitude and giving thanks are common practices among all people in all of the world’s cultures. Most frequently held after the end of the harvest season, thanksgiving ceremonies have ritually been celebrated at various times throughout human history.

Thanksgiving is a practice that has evolved over time, many of its roots pre-date written history. Throughout its known heritage, a day of giving thanks always has aspects of harvest, as well as of celebration. It is also a time of remembrance for what has been and what is to come. Honoring the cycle of life and its renewal through time is a key theme in every Thanksgiving celebration.

Practice of Abundance

Most especially, Thanksgiving is a practice of abundance. It is a day of sharing one’s bounty with others and, through sharing one’s bounty, your harvest is multiplied.

An example of this continuance of life though the practice of abundance in time can be found in the tradition of “Thanksgiving Day” practiced by Americans, which itself is rooted in English traditions dating back to the early 1500s.¹

First Thanksgiving Stories

There are numerous stories about how the “First Thanksgiving” started in many of the world’s present day harvest celebrations.

The most famous story in the United States is from a group of Pilgrims, who were out game hunting. The story goes that the neighboring Wampanoag natives, hearing gunshots, thought that the English might be preparing for war. The leader of the tribe, Massasoit, visited the Englishmen’s settlement and discovered that the English men were simply out game hunting for their harvest celebration. To help them out, Massasoit offered to send men from his own tribe to hunt and provide meat and deer for their feast. Of course, the Wampanoag tribe members were invited as guests to the harvest celebration. There were ninety Wampanoag tribe members and fifty three Pilgrims at the “First Thanksgiving” day harvest celebration.²

Canada has two popular “First Thanksgiving” stories. The first recounts how, in 1578, the explorer Martin Frobisher held the first

Thanksgiving Day celebration in Canada for surviving his long journey from England. He had undergone much hardship on his journey through the wilderness in his attempt to find a passageway to the Pacific ocean.² The second story cites the origin of the Canadian “First Thanksgiving” to early French settlers who in the beginning of the 17th century arrived with the famous explorer Samuel de Champain in New France. The French settlers were reported to celebrate all successful harvests, typically at the end of the growing season. The celebrations usually continued throughout the entire winter season. The French settlers were known for sharing their bountiful harvest with the local indigenous peoples of the region.

This tradition of celebrating harvest and sharing your abundance with others continued and it was adopted by all of the new immigrants arriving in Canada. Each of these new arrivals, be they German, Irish, Scottish, or of any other nationality, added their own traditions to the Thanksgiving Day feast, including the American turkey which arrived with the Loyalists who fled the United States during the American Revolution.⁴ Until recently, Thanksgiving has always been observed on various months and days throughout history even in the United States. Up to the time of United States President Abraham Lincoln (1809 – 1865), the date for observing Thanksgiving always differed from state to state. So, historically anytime of harvest was seen as a good time for a Thanksgiving celebration and practicing abundance.⁴

Thanksgiving Celebration Oils

You might say that Thanksgiving is a celebration of the senses. Full enjoyment of



the senses and sharing that enjoyment with others is at the heart of every Thanksgiving celebration. What better way to celebrate the senses than with aromatic oils. Scent reaches deeply into the human psyche stirring your memories in mysterious and wondrous ways.

Thanksgiving blends contain many of the essential oils often used in traditional wealth attraction formulas. The use of plant aromatics to attract prosperity has been practiced for thousands of years by some of the world’s most wealthy cultures.

The essential oils in the Thanksgiving Celebration Blends recipes are mood enhancers and aphrodisiacs which promote you experiencing good feelings and an aura of attraction about you. As in today’s celebrations, social gatherings, festivals and celebrations of antiquity were often opportunities for courtship and meeting one’s prospective marriage partner.

Eight Thanksgiving Celebration Oils

Cinnamon Leaf

(*Cinnamomum zeylanicum*).

Scent: Sweet, warm, spicy.

Action: Aphrodisiac, stimulating, warming.

Cautions: Drug interaction, may inhibit blood clotting, skin sensitization (moderate risk), mucous membrane irritant (low risk). May contain safrole. Maximum dermal use level 1.0% based on safrole content. Maximum dermal use level 0.6% based on 87% eugenol content.⁸ Avoid use with children under the age of six years of age.

1

Patchouli (*Pogostemon cabin*).

Scent: Earthy, sweet, exotic, sensual, warm, radiant.

Action: Aphrodisiac, promotes sexual attractiveness.

Cautions: Drug interactions, may inhibit blood clotting. Low risk allergen does not require dermal use restriction.⁴

5

Ginger Fresh Root (*Zingiber officinale*).

Scent: Warm, spicy, sweet.

Action: Aphrodisiac, warming, stimulates digestion, energy tonic.

Cautions: Although Tisserand does not list any cautions I recommend exercising care and respect when using ginger essential oil as it is a known skin irritant. For skin applications use in a weak dilution of less than 1%.⁶

2

Black Spruce (*Picea mariana*).

Scent: Fresh, balsamic, woody.

Action: Inspires passion for life.

Cautions: Skin sensitization if oxidized, recommend refrigeration.⁵

6

Tangerine (*Citrus reticulata*).

Scent: Sweet, fresh, fruity.

Action: Uplifting, promotes fresh, peaceful state of mind.

Cautions: Skin sensitization if oxidized, recommend refrigeration. May cause photo-sensitivity. Avoid exposure to direct sunlight or sunlamp after skin application for 12 hours after use.²

7

Myrrh (*Commiphora myrrh*).

Scent: Warm, radiant, spicy.

Action: Restorative, promotes spiritual and emotional well-being.

Cautions: May be fetotoxic, due to B-elemene and furanodiene content. Avoid myrrh essential oil (all routes) during pregnancy and lactation.⁷

3

Ylang Ylang III (*Cananga odorata*).

Scent: Sweet (less intense than other fractions), floral, balsamic, exotic, sensual, earthy.

Action: Stimulates feelings of enjoyment and self-confidence.

Cautions: Skin sensitization (moderate risk). Avoid use with disease or damaged skin, and children under two years of age. Maximum dermal use level 0.8%.³

8

Sweet Orange (*Citrus sinensis*).

Scent: Fresh, sweet, citrus-y.

Action: Promotes happiness, eases tension.

Cautions: Skin sensitization if oxidized, recommend refrigeration. May cause photo-sensitivity. Avoid exposure to direct sunlight or sunlamp after skin application for 12 hours.¹

4



Thanksgiving Celebration Blends

Directions for Making and Use:

To a 5 mL euro-dropper bottle, add the essential oils listed for each blend below. Blend the essential oils together. Cap bottle tightly and shake vigorously to dispense oils thoroughly. Allow to synergize three hours or longer before using. Dispense 1-3 drops of the blend onto a cotton ball or smell strip, and inhale. You can also add several drops of your blend to a cold air nebulizer diffuser or ultrasonic micro diffuser and diffuse into the air to scent an entire room. Consult the aromatherapy diffuser manufacturer's guidelines for use.

Thanksgiving Celebration Blend #1

Essential Oils:

- 40 drops sweet orange (*Citrus sinensis*)
- 20 drops tangerine (*Citrus reticulata*)
- 10 drops ylang ylang III
(*Cananga odorata*)
- 10 drops patchouli (*Pogostemon cablin*)
- 10 drops cinnamon leaf
(*Cinnamomum zeylanicum*)
- 10 drops ginger (*Zingiber officinale*)

Thanksgiving Celebration Blend #2

Essential Oils:

- 40 drops sweet orange (*Citrus sinensis*)
- 40 drops tangerine (*Citrus reticulata*)
- 5 drops cinnamon leaf
(*Cinnamomum zeylanicum*)
- 5 drops ginger (*Zingiber officinale*)
- 5 drops myrrh (*Commiphora myrrha*)
- 5 drops black spruce (*Picea mariana*)

References:

1. *Thanksgiving or Thanksgiving Day (United States)*, Wikipedia, accessed from: [https://en.wikipedia.org/wiki/Thanksgiving_\(United_States\)](https://en.wikipedia.org/wiki/Thanksgiving_(United_States))
2. *Thanksgiving (Canada)*, Wikipedia, accessed from: [https://en.wikipedia.org/wiki/Thanksgiving_\(Canada\)](https://en.wikipedia.org/wiki/Thanksgiving_(Canada))
3. *Sweet Orange*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.
4. *Tangerine*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.
5. *Ylang Ylang*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.
6. *Patchouli*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.
7. *Black Spruce*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*. *Ginger*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*. *Myrrh*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.
8. *Cinnamon Leaf*, Tisserand, R. & Young, R. (2014) *Essential Oil Safety: A Guide for Health Care Professionals*.

About KG Stiles:

KG Stiles, BA, CBT, CBP, LMT, is a metaphysician, holistic health coach, certified clinical aromatherapist and consultant providing expert essential oil services since 1980. She has worked with many celebrities over the past three decades and has published hundreds of articles, many of which have appeared in *Massage Therapy Journal*, *Breast Cancer Wellness magazine*, *Aromatherapy Today (Australia)* and *NAHA Aromatherapy Journal*. Her newest book, *The Essential Oils Complete Reference Guide*, is available for purchase in the [NAHA bookstore](#). KG is the NAHA Regional Director for Oregon (South). To learn more about KG, please visit her website at: www.kgstiles.com

Threatened Essential Oil Species

by Kathy Sadowski, LMT, RYT



Introduction

The growing popularity of herbal medicine and essential oils has increased the demand of multiple healing plants to the point of serious over-harvesting. Essential oils, stored in the tiny secretory structures of plants, require a large amount of plant material, up to 100 times or more, to make one tiny bottle of oil. For those plants whose population is dwindling to the point of scarcity, it is unethical to harvest and produce oils in a way that jeopardizes their earthly existence. This article will focus on identifying and describing specific plant species used for making essential oils that are in serious risk of over harvesting.

Below is a list of plants which have species or subspecies in danger. Visit the websites listed at the end of this article for more detailed and up-to-date

information before purchasing essential oils extracted from these botanicals. It is the duty of a responsible consumer to reduce the demand on vulnerable species.

Frankincense (*Boswellia sacra*, *B. frereana* and Other *Boswellia* Species)

Additionally called olibanum, *Boswellia sacra*, is classified as “Near Threatened” on the 2017.1 IUCN Red List.¹

This sacred tree is found in Northern Somalia, Oman, and Yemen.² In some areas, like Oman, it is “Critically Endangered.”³ Several *Boswellia* species located in Yemen have a dangerously declining habitat and were listed as “Vulnerable” on the IUCN Red List of Threatened Species in 2017, such as *B. ameero*, *B. bullata*,



Main Essential Oil Species of Concern

Frankincense

(*Boswellia carteri*, *B. sacra*, *B. frereana* and multiple other *Boswellia* species)

Rosewood

(*Aniba rosaeodora*, multiple *Ocotea* species, and multiple *Dalbergia* species)

Sandalwood

(*Santalum album*, *S. spicatum*, *S. austrocaledonicum*, and multiple other *Santalum* species along with *Osyris lanceolata* and *Pterocarpus santalinus*)

Spikenard (*Aralia racemosa*, *A. californica* and other *Aralia* species along with *Nardostachys grandiflora* and *N. jatamansi*)

Agarwood

(*Aquilaria crassna* and all *Aquilaria* species along with all *Gyrinops* species)

Cedarwood Atlas (*Cedrus atlantica*, other *Cedrus* species, many *Juniperus* species, and *Widdringtonia whytei* Rendle).

B. dioscoridis, *B. elongate*, *B. nana*, *B. popoviana*, and *B. socotrana*.⁴ *B. ovalifoliolata* from India and *B. ogadensis* from Ethiopia are also vulnerable.^{5,6} This tree resin has been a highly valuable plant extract since ancient times, with the Horn of Africa trading it as a lucrative commodity for 2,000 years.⁷ Today, it is used in Western medicine for inflammation, and as an anti-carcinogenic.⁸ Further studies indicate that it may be effective in treating bladder cancer.⁹

It is harvested by precisely cutting into the bark and allowing the resin to slowly ooze out and then solidify, with the cuttings repeated two or three times in the five month harvest season.⁷ *Boswellia papyrifera* genetic variety is dwindling in Western Ethiopia and conservation strategies need to be implemented.¹⁰

Somiland, which is not technically a country, is an area where frankincense is especially overharvested and under protected. Here, the resin is purchased from the harvester by a middleman for an extremely low price, then sold in the Middle East for a much higher price to an international market. Thus, the Somali farmer is exploited with no government control of frankincense sales. Rising food prices and scarce opportunity for other jobs in the area has a negative effect on the trees with illegal harvesting beyond the season, and excessive cutting of the bark. The price to pay for this valuable resin overharvesting is the life of the trees.⁷ Further, drought conditions and no government to protect the trees is an issue, but designating the forest area as “Protected” would help the trees.⁷



Frankincense (*Boswellia sacra*)

An additional issue associated with frankincense is the exploitation of poor people for labor. It is The Horn of Africa’s biggest export after livestock, with an estimated 10,000 families financially dependent on the crop.¹⁰ The women process the resin after it is harvested by the men, typically sitting on a concrete floor for twelve hours a day, and making fifty cents to two dollars a day.⁷ Working with Fair Trade organizations to have frankincense certified may help set a fair price for harvesters and sustain the trees.⁷ Creating a harvesters’ cooperative will further promote fair trade, reduce underbidding, and set sustainability standards.⁷

Rosewood (*Aniba rosaeodora*, Genus *Dalbergia* ssp., and Genus *Ocotea* ssp.)

Rosewood has a rich burgundy color and it is used in making high-end furniture, musical instruments, and oil extracts. It is a South American plant whose precious oil is known to have been used in famous perfumes like Chanel No. 5, Presenced’uue Femme, Trussardi Skin, and Lagerfield Jako.¹¹ *Aniba rosaeodora* is listed on the 2017 IUCN Redlist as endangered and is also listed along

with nineteen *Dalbergia* *ssp.* on CITES.^{1, 12} Many *Ocotea* species are “Near Threatened,” “Vulnerable,” “Endangered,” or “Critically Endangered” on the 2017.1 IUCN Red List.¹ Critically endangered are: *Ocotea harrisii*, *O. lancilimba*, *O. monteverdensis*, and *O. pachypoda*; endangered are: *O. basicordatifolia*, *O. jorge-escobarri*, and *O. staninoides*; and ten *Ocotea* species are listed as vulnerable.¹ Unfortunately, trees of all sizes are harvested and destroyed for rosewood oil extraction and other uses.¹³

In the Atlantic rainforest of Brazil, heavy harvesting based on a high value of timber and essential oil has rendered many species “Vulnerable” to “Extinct.” Fragmented and reduced populations of these species are causing the loss of rare alleles; like inbreeding, this will result in a reduction of genetic diversity.¹⁴ Further, it is important that even small populations on fragmented pieces of unprotected land play a role in species survival and improved genetic diversity.¹⁴ Illegal logging is also a problem, with issues like cross-border logging in the Cambodian–Lao region.¹⁵

As for *Ocotea porosa*, selective logging in the Southern Brazilian state of Paraná over the past century may have contributed to a lower quantity of the larger trees, which could impact the rate of reproduction and cause



Siamese Rosewood
(*Dalbergia cochinchinensis* Pierre)

local extinction.¹⁶ The canopy openness and gap openings in a cohort composed of more juvenile plants dangerously creates less height variety for the species.¹⁶ Other species in danger include *O. obtusata*, considered “Critically Endangered,” and *O. mascarena*, which is “Endangered” by the country of Mauritius.³

With the CITES listing of Brazilian rosewood, logging then shifted to Madagascar.¹⁷ In Madagascar, Malagasy rosewood, including *Dalbergia baronii*, *D. louvelli*, and *D. madagascariensis*, is one of the most sought after hardwood crops in the world.¹⁸ Illegal logging is happening at an alarming rate and severely threatening Madagascar rainforests. Local residents

are cutting for a very low profit and selling to criminal exporters who have corrupted officials.¹⁹ This happens even though the Marojejy National Park has been established as a UNESCO World Heritage Site.¹⁸ Madagascar is one of the world’s key threatened bio diverse areas with an immediate risk for rosewood species extinction and has been recently protected under CITES. Even though the Malagasy government has prohibited rosewood logging and export as of 2010, weak penalties and poor enforcement prolong the problem.¹⁷ The rosewood logging involves cutting down hundreds of unused trees to get to the bigger trees, ratifying

landscapes, decreasing soil fertility, and increasing potential fires; thus affecting the local ecosystem of many other plant and animal species.¹⁷

Multiple other species of rosewood are at risk. Siamese rosewood (*Dalbergia cochinchinensis* Pierre) of Thailand and Laos is in very high demand and has been illegally logged for the past few decades, affecting genetic diversity.⁶³ *Aniba rosaeodora* is “Endangered” on the 2017.1 IUCN Red List¹ and found in South America, with trees of all sizes indiscriminately harvested illegally.¹³ Multiple *dalbergia* species are “Endangered,” “Vulnerable,” and “Near Threatened” due to overharvesting by the perfume industry; *D. oliveti* and *D. cochinchinensis* are listed as “Priority Tree Species for Gene Conservation” in Cambodia, and in Nepal, *D. latifolia* is a “Vulnerable” species,^{11,3} *D. sissoo* is considered a “Threatened” tree by the country of Pakistan, *D. retusa* is considered “Vulnerable” by the country of Nicaragua, and *D. retusa* is considered “Endangered” by Panama.³



Sandalwood (*Santalum album*, *S. spicatum*, and *S. austrocaledonicum*)

Santalum album is listed as “Vulnerable” on the 2017 IUCN Red List.¹ Exploitation has drastically affected this parasitic tree, with the rate of extraction far exceeding the rate of growth for many years.¹¹ Spike disease, grazing animals, and fire have further been a problem for *S. album*, especially in the Timor Islands.⁶⁴

Australian sandalwood (*Santalum spicatum*) has been used as a replacement for *Santalum album* but it has also recently been over-exploited and it has been historically used by major perfume companies.¹¹ Heavy international demand with poor regulation contributes to the problem.²⁰ Further, due to a low supply and high demand, prices have skyrocketed, increasing illegal harvesting.²¹ Synthetic fragrances have been manufactured to help reduce the demand on this scarce resource. In addition, to try to save this plant, a key issue that needs to be addressed is the low genetic variability, with inbreeding that causes important missing alleles and poor sexual reproduction.²²

Before the 1900s, sandalwood was used mainly as incense and for attars and oils. Then, in 1918, India’s first sandalwood oil factory was established, using the heartwood from the tree to manufacture shampoos, soaps, perfumes, and cosmetics at an industrial scale.²³ From 1950-1970 about 480,000 *Santalum album* trees were harvested per year in India’s southern state of Karnataka. Then in 1974, only a fraction of the trees were left in Karnataka and the species was near to extinction, with the government putting a halt to harvesting.²³ Smugglers then made big money on the tree; one man in particular,

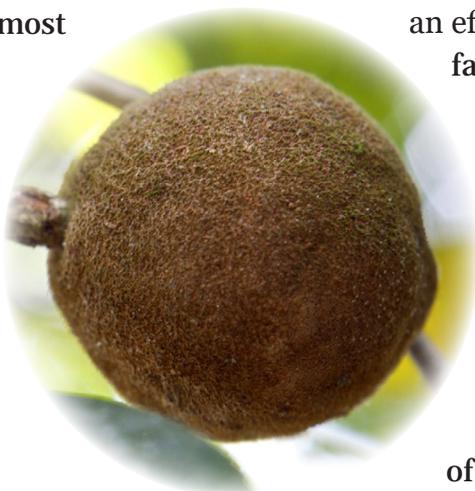
Veerappan, became very rich from the illegal trade, thus becoming an embarrassment to Indian police.²³ Before 9/11, the hunt for Veerappan was the largest and most costly in Asia. He was finally killed by police in 2004, but other smugglers have since taken his place.²³

Santalum album Linn, in the East Nusa Tenggara province of Indonesia, is an important natural commodity representing about 40% of the province's income from 1986-1992.²⁴ In the past two decades, the alarming decrease in tree population has forced a governmental ban on harvesting from 1997 – 2003.²⁴ Local farmer participation in cultivating sandalwood has been low because of strict government policies, with the Regional Regulation Act No. 16/1886 making all sandalwood property of the government regardless of if it was grown on private or state lands.²⁴ Some districts have since issued new regulations giving more rights to the people, including the cutting and selling of trees, thus encouraging planting.²⁴

Unsustainable harvesting in the Timor islands with farmers using uncontrolled fire as a method to clear land is a key threat to that local subspecies.¹⁹ Unfavorable legislation in the Timor Islands that is trying to protect the trees, discourages farmers to plant because if they illegally cut or mistreat the sandalwood, they could face criminal charges. This provides a disincentive for local people to help grow more trees.¹⁹

In Sri Lanka, boundary demarcation, declared conservation forests, and increased park staff

were implemented to protect and conserve sandalwood, but fire and grazing continue to be a main cause of destruction. In 2010, an effort was made to educate local farmers of the damage caused by fire and grazing and the importance of sandalwood to future generations.²⁵



Fruit of Sandalwood
(*Santalum album*)

Santalum austrocaledonicum from the islands of Vanuatu and New Caledonia is of serious concern, with little remaining of its natural habitat. During the 1840's, sandalwood traders discovered these trees and began overharvesting them.²⁶ In 1987,

the government restricted the quantities logged, but the land was never properly reforested due to disputes of ownership.²⁶

Below is a list of more sandalwood species in danger:

- All *Santalum* species of Hawaii are on the "At Risk" list of United Plant Savers.²⁷
- *Santalum fernandezianum* of the Juan Fernandez Islands has a status of "Extinct" by the WCMC.¹¹
- *Santalum freycinetianum* of Polynesia is "Endangered" with a need for a moratorium on tree cutting and land conservation²⁸ and *Santalum insulare* is "Vulnerable," and the only other sandalwood species of Polynesia.²⁹
- *Santalum lanceolatum* is "Endangered" in parts of Australia.²²
- *Santalum macgregorii* is "Endangered" on the 2017.1 IUCN Red List.¹ Located in Papua New Guinea, there are very few mature trees left due to overexploitation.³⁰

- *Santalum yasi* has been overharvested in Fiji and Tonga, causing a low density and small size of adult trees.³¹
- *Osyris lanceolata* is “Endangered” in Kenya and declining in Tanzania; and it has been listed on CITES since 2013.¹²
- *Pterocarpus santalinus*, red sandalwood, of India is “Endangered” on the IUCN 2017.1 Red List and trade is monitored through CITES with new plantations being established.^{1, 32, 12}

Spikenard (Various *Aralia* and *Nardostachys* Species)

Rhizomes of the spikenard plant are extracted and used as an essential oil for insomnia, stress, and tension; the drug industry uses it for various degenerative diseases.³³ CAMP reported a population decline of spikenard in India of 75-80%, classifying the plant as “Endangered,” with biodiversity under serious threat.³⁴ Export of the plant has been banned, resulting in an absence of commercial cultivation that has led to untrained extraction, habitat destruction, and premature harvesting. This, along with an increased market price, has resulted in heavy adulteration that creates an essential oil without the same medicinal constituents.³⁵

Actinidia chinensis, *A. debilis*, *A. javanica*, *A. malabarica*, and *A. tibetana*, are all listed on the 2017.1 IUCN Red List as “Vulnerable.”¹ *A. racemosa* and *A. californica* are on the “To Watch” List of United Plant Savers.²⁷ *Nardostachys grandiflora* (Jones) DC of the Himalayas was banned for export from Nepal in 1993, and has been listed in CITES since 2007.¹²



Wood chips of the Agarwood tree

Nardostachys jatamansi is listed as “Critically Endangered” on the 2017.1 IUCN Red List,¹ and *N. jatamansi* DC is on the verge of extinction from over harvesting and degradation of its environment in India, Pakistan, Nepal, Tibet, China, and Yunan.³³ Unregulated root collection and loss of habitat needs to be addressed.³⁶ Further, The Red Data Book of Indian Plants lists seventeen species, including *N. jatamansi* DC. RAPD is a method used in measuring biodiversity of a species: polymorphism, and characterizes variability. *N. jatamansi* DC was collected and analyzed from India and Nepal to determine better propagation strategy to maintain diversity and conserve the plant in high demand for its medicinal properties.³⁷

Agarwood (*Aquilaria crassna* and *Gyrinops* Species)

Agarwood is also called oud, agalocha, gaharu, aloeswood, eaglewood, and kiara. *Aquilaria crassna* is “Critically Endangered” on the 2017.1 IUCN Red List,¹ and multiple species are listed on CITES.¹² In high demand and

Cedarwood Atlas (*Cedrus atlantica*)

reputed to be the most expensive wood in the world, it can be found in North Eastern India, Bhutan, South East Asia, and Thailand. The aroma from agarwood is created when a fungus infects the tree. *Aquilaria crassna* is also protected by the Vietnam government, with overharvesting causing a population reduction of over 80%.³⁸ It is a very expensive essential oil and overharvesting has resulted in seven other *Aquilaria* species being designated as “Vulnerable” on the 2017.1 IUCN Red List.¹ All species of *Aquilaria* and *Gyrinops* were placed on the CITES Appendix II list of International Trade in Endangered Species.³⁹ The Indian Forest Act bans extraction and export, to reduce genetic erosion via CIMAP 1997.¹¹

Cedarwood Atlas (*Cedrus atlantica* and many *Juniperus* Species)

Cedarwood essential oils are obtained from three main species. In America, *Juniperus ashei* Buch is found in Texas and *Juniperus virginiana* L. is found in Virginia. In Morocco and India, there is the *Cedrus* species, and in China, you will find the *Cupressus* species. It is the *Cedrus* species whose populations are of the most concern. The essential oil has been marketed for being antiseptic, anticatarrhal, as an expectorant, and as a circulatory stimulant.⁴⁰ The tree is also used for furniture, carpentry, construction, tar making, and as an insect repellent.

In Morocco, especially, *Cedrus atlantica* is on the 2017.1 IUCN Red List¹ as “Endangered” with up to a 75% decline in population between 1940 and 1982 and continuing to dwindle.⁴¹ The Atlas Mountains of Morocco are a Mediterranean Red Alert area with 10,000 km² of the forest disappearing from 1940 to 1982 and a 40% loss over the past three decades.⁴⁰ The World Wildlife Fund (WWF) classifies the conifer forests of North Africa, Morocco, North Tunisia, and North West Algeria as “Critically Endangered.”⁴⁰ Pest outbreaks and a more arid climate have worsened the situation along with overgrazing and fires.⁴¹ Himalayan cedarwood (*Cedrus deodara*) and *Cedrus libani* of Lebanon are additional *Cedrus* species listed on the 2017.1 IUCN Red List.¹ Further, the 1991 – 1996 drought has rendered the area ecologically fragile and susceptible to desertification, erosion, demineralization, and dehydration.⁴⁰

Kenyan cedarwood (*Juniperus procera*) was listed as “Endangered” by the FAO Forestry Dept. in 1986, listed as “Endangered” in Saudi Arabia and Malawi, and listed on the IUCN 2010 Red List of Threatened Species.⁴⁰ *Juniperus cedrus* of the Canary Islands is “Endangered” with a population of only 600 sexually mature trees and decreasing.⁴² Problems for this species have included exploitation of the wood for aromatic timber, a severe fire in 2007 in the El Teide National

Park, and overgrazing.⁴² Poor genetic diversity needs to be addressed as part of the conservation plan, and the reintroduction of more raven and wintering ring ouzel birds could aid in the long range seed dispersal.⁴³ In 2000, all goats were removed to improve growth.⁴² *Juniperus communis* subsp. *Hemisphaerica* was identified by the nation of Morocco as “Critically Endangered” and *Juniperus thurifera* was listed as “Vulnerable.”³ *Widdringtonia whytei* Rendle, Mulanje Cedarwood of Tropical Africa, is “Critically Endangered” on the 2017.1 IUCN Red List,¹ being heavily exploited for over 200 years. Illegal logging, fires, lack of regeneration, invasive species, and pests could cause a decline of over 809% by the year 2030, with wood being used to build houses and illegal cutting also being a major problem.⁴⁴

Alternative Essential Oil Suggestions for Endangered Plants

Consumers have a moral responsibility to avoid purchasing at risk plant species. In many cases, Fair Trade goes along with this issue, where both the plants and the poor people of an area are equally exploited by big businesses who profit highly from the sales of rare essential oils in danger of extinction. The quickest way to look up a species status is at the website www.iucnredlist.org. However a species may be overharvested before it ever makes it onto the IUCN’s list. You can also enter a query in Google Scholar of “plant species name” and “threatened” or “endangered” to find additional scholarly status updates, often written by local experts. In doing research, the author has noticed multiple essential oil suppliers selling listed endangered species. In this instance, it is



suggested to call the company and discuss the latest status of the species and how, and where from, they obtain their supply before purchasing.

The use of alternative essential oils with similar healing properties can be considered as a way to avoid endangered and threatened species. Myrrh comes from the same plant family as frankincense, *Burseraceae*, and both species are small trees growing in dry climates. The resin extracted from both frankincense and myrrh consists mainly of terpene hydrocarbons along with sesquiterpenes.⁴⁵ Both oils can be used for skin healing, immunity strength, and as a decongestant, and have been used as a spiritual incense since Biblical times. Coriander seed (cilantro) extracted from *Coriandrum sativum* may be a good replacement for rosewood. Both are very high in linalool content and both essential oils have a sweet, spicy, woody scent.

As it relates to sandalwood, it seems easiest to recommend avoiding any varieties coming from India, Hawaii, Vanuatu, and New Caledonia unless the educated consumer investigates their source. Alternative species from Australia include *Eucaria spicata*, *Fusanus spicatus* R. Brown, and *Santalum cygnorum*. Muhuhu (*Brachyleana hitchensii*) may be a viable source out of Kenya. West Indian sandalwood (*Amyris balsamifera*) another possible alternative, comes from Haiti.

Some essential oil companies suggest ho wood (*Cinnamomum camphora*) essential oil as an alternative to Indian sandalwood essential oil, but this tree is also in danger.⁴⁶

Agarwood is an endangered tree whose resin is also highly prized. Its smell is often described as sandalwood-like, and the species listed above may be viable replacements for agarwood. For cedarwood, there are various species across the world and the Moroccan variety seems to be in the most jeopardy, while in Texas, *Juniperus ashei* is available in abundance.

Honeysuckle (*Lonicera* spp.) is in the same plant family, *Caprifoliaceae*, as spikenard, so it may be a likely alternative, but it is very costly to extract essential oil from honeysuckle flowers, if at all viable. One idea would be to make a honeysuckle infused oil; however the recipe on this page involves the flowers and not the roots, as in the case of spikenard.

Valerian root (*Valeriana officinalis*) may be another alternative to spikenard, however, as indicated in the appendix of this paper, it has multiple species on the IUCN Red List.¹

Conclusion

Frankincense, rosewood, sandalwood, spikenard, agarwood, and cedarwood Atlas all produce amazing essential oils, but it is not worth purchasing them at the cost of species survival. Research has shown stories of overharvesting, human exploitation, and lost habitat that has cost these plants dearly.

Frankincense resin of the Horn of Africa is fraught with corruption and exploitation.

Rosewood has been stripped in Brazil and has spread to Madagascar.

Sandalwood, with a valuable history in the economy of India, may be overprotected by the government to the point that it discourages farmer cultivation. Multiple species from Australia to Hawaii have been made extinct or are in serious danger.

Spikenard export has been banned, resulting in a heavily adulterated essential oil.

Agarwood has a threatened genetic diversity, with a lack of variation affecting the species.

Cedarwood Atlas has seen its conifer forest habitat shrink drastically.

The solution to saving these plants must start with the consumer. By refusing to purchase the essential oil sends a message to the supplier that no essential oil is worth the cost of losing species.

Honeysuckle Infused Oil

Directions for Making and Use:

1. Pick the honeysuckle flowers and allow them to dry for a few hours, but not too much longer as these very delicate flowers may wilt and lose their smell.
2. Put the same quantity of flowers to base oil, such as sunflower (*Helianthus annuus*), in a glass jar and set the jar out in the sun each day for two weeks, bringing it inside in the evening.
3. After two weeks, strain the flowers from the oil using several layers of muslin cloth. It may be necessary to then re-infuse the strained oil with a fresh picking of more lightly dried honeysuckle in the same method for two more weeks to strengthen the scent. The infused oil can be preserved by adding benzoin (*Styrax benzoin*) essential oil at 1.5%.

Appendix: Additional Essential Oil Species of Concern

Argan Oil <i>Argania spinosa</i> Morocco	In Morocco, <i>Argania spinosa</i> is “Endangered” and its genetic diversity is severely threatened. ⁴⁷ In addition, <i>Aquilaria malaccensis</i> is “Endangered” and protected worldwide by CITES since 1995. ¹²
Buchu Oil from <i>Agathosma betulina</i> South Africa	Lucrative for its camphor components, buchu oil has many medicinal uses. It is primarily harvested from the wild, but cultivation is providing more supply to go along with the increasing international demand and to help the poor local population earn income. However, sustainable harvesting is an issue due to the local practices of poverty-stricken people and poor legislation. ⁴⁸
Calamus Oil from <i>Acorus calamus</i> India, Pakistan	This ginger-like plant has become “Endangered” in Pakistan, rare in India, and listed as a VU Threatened Medicinal Plant in S India. ¹¹ Highly sought for the medicinal value of its root, it was banned from export during 1997 to save the crop from extinction in the wild. ⁴⁹ Multiple <i>Calamus</i> species are on the 2017 IUCN Red list (1).
Chaulmoogra from <i>Hydnocarpus pentandrus</i> & <i>H. kurzii</i> India	Chaulmoogra is “Vulnerable” on the First Red Data List for S. India and CIMAP, 1997. ¹¹ In India, the seed oil is used to treat many ailments, with loss of habitat and unsustainable collection. ⁵⁰
<i>Coleus forskohlii</i> India	<i>Coleus</i> is “Endangered” in India, and is a member of the mint family whose roots are collected for Asian healing methods. ⁵¹
Gugguli from multiple <i>Commiphora</i> species India, Pakistan	Multiple <i>Commiphora</i> species are on the 2017.1 IUCN Red List, 2010. ¹ Unsustainable harvesting of the gum, called Guggulu, which is used for medicinal purposes, causes death of the plant. Located in India and Pakistan, the Indian government has banned export of the species. ⁵⁰
Costus Oil from <i>Saussurea costus</i> India	This “Critically Endangered” plant is on the 2017.1 IUCN Red List ¹ and harvested for the medicinal value of its roots. ⁵ It is also listed in the Wildlife Protection Act of India 1995. ¹¹ Habitat loss, illegal harvesting, and uncontrolled yak grazing has threatened the species. ⁶²
Elemi from <i>Canarium luzonicum</i> Philippines	This plant had a status of “Vulnerable” on the 2017 IUCN Red List. ¹ It is highly regarded in Europe for use to reduce skin wrinkles and to soothe muscles.
Fir: Nordman <i>Abies nordmanniana</i> Turkey	This fir species was on the 2017 IUCN 2010 Red List. ¹ Northwestern Turkey has experienced a loss of mature trees due to illegal logging, acidic rain caused by sulphur dioxide from a nearby power plant, habitat degradation, and fire, with a decreasing population trend. Excessive visitors to the National Park, especially during the annual Sarikiz Festival and around Mt. Olympus have caused further issues for the trees. ⁵²
Galbanum or Giant Fennel, multiple <i>Ferula</i> species Europe	Multiple <i>Ferula</i> species are on the 2017 IUCN Red List: <i>F. caucasica</i> and <i>F. latpinna</i> are listed as “Vulnerable,” <i>F. sadleriana</i> as “Endangered,” and <i>F. mervynii</i> as “Critically Endangered.” ¹
Gentiana <i>G. kurroo</i> Royle Himalaya	Gentiana has many of its 300 subspecies identified as “Rare” or “Threatened.” <i>G. kurroo</i> Royle of Northwestern Himalaya is “Critically Endangered” and the roots are used as a bitter tonic for many medicinal purposes. ⁵³
Gurjun from multiple <i>Dipterocarpus</i> species India	This balsam tree of India has many species listed as “Endangered,” “Critically Endangered,” and “Extinct” on the 2017 IUCN Red List. ¹
Hinoki Wood <i>Chamaecyparis</i> species Japan	Hinoki wood is highly prized for holy buildings but suffers from excessive logging with slow growth. ⁵⁴ As an essential oil, it has a spicy lemon scent. <i>C. formosensis</i> is on the IUCN Red List as “Endangered,” while <i>C. iawsoniana</i> and <i>C. obtuse</i> are “Near Threatened.” ¹
Ho Wood Oil from <i>Cinnamomum camphora</i> China	Ho wood oil, coming from a blend of <i>Cinnamomum camphora</i> subspecies trees, has been blocked from cutting in China as of 2007, and is listed as “Vulnerable.” ¹¹ The camphor tree of South China is a valuable timber for furniture, artwork, and architecture and as an oil used in medicine and perfume. ⁴⁶ In the past decades, this tree was overharvested, but recent reforestation activities have improved quantities. However, most of the seedlings planted were from low quality trees and higher quality breeds of camphor trees need to be planted to improve quality. ⁴⁶ Many <i>Cinnamomum</i> species are listed as “Endangered” on the IUCN Red List. ¹

Appendix: Additional Essential Oil Species of Concern (*continued*)

Holy Wood from Multiple <i>Guaiacum</i> species FL & Central America	Holy Wood (<i>Guaiacum sanctum</i>) is listed as “Endangered” on the IUCN Red List. ¹ <i>G. coulteri</i> and <i>G. officinale</i> are also listed on the 2015 IUCN Red list. ¹ Found in Florida, North and Central America, <i>G. sanctum</i> is also listed by CITES. ¹² <i>Bursera glabrifolia</i> , a variation of the plant in Mexico, was almost locally extinct in 2003. ¹¹ <i>Bulnesia sarmientoi</i> is an additional species listed by CITES ¹² and <i>Bulnesia carrapo</i> is listed on the IUCN Red List ¹ as “Endangered.”
Pushkarmoola <i>Inula racemosa</i> North West Himalaya	<i>Inula racemosa</i> is a “Critically Endangered” alpine herb of the Himalayas, which is used for multiple medicinal purposes. North West Himalaya has seen a huge increase in illegal extraction of its medicinal plants, causing an over-exploitation that has drastically decreased populations of some species. ⁵⁵
Galangal <i>Kaempferia galangal</i> , <i>K. rotunda</i> , and <i>H. spicatum</i> Smith Tropical Asia	Galangal or galgant spice lily is an aromatic ginger medicinal plant of tropical Asia facing extinction. ⁵⁶ <i>Hedychium spicatum</i> Smith is a very highly valued medicinal plant with a status of “Vulnerable.” It is of the Indian Himalayan Region and is also called Kapoor or ginger lily. ⁵⁷
Auracacia Oil from <i>Neocallitropsis pancheri</i> New Caledonia	<i>Neocallitropsis pancheri</i> , known for its Auracacia oil, has been heavily overharvested for its resin used in perfumery. The total population of this plant is under 10,000 and decreasing, and is listed as “Endangered” on the IUCN 2017.1 Red List. Fires and mining activity have also been a key threat to its existence. ^{1,58}
<i>Origanum</i> – Multiple Species Middle East	<i>Origanum</i> is a small spicy shrub with some species endemic to the Middle East classified as “Vulnerable” or “Near Threatened” on the IUCN Red List ¹ including <i>O. cordifolium</i> , <i>O. dictamnus</i> and <i>O. ehrenbergii</i> . Commercial plantations of palm oil have threatened multiple species. ¹¹
Ginseng <i>Panax ginseng</i> C. A. Meyer Korea & America	<i>Panax ginseng</i> C. A. Meyer is wild forest ginseng of Korea, and used in pharmacological products. It is believed to be endangered in Korea, and the American ginseng plant was listed on CITES to protect it from extinction. ⁵⁹
Norway Spruce <i>Picea abies</i> Norway	Norway spruce is on the 2011 Norwegian Biodiversity Information Center’s Red List. ⁶⁰ Additional varieties of spruce are listed on the IUCN Red List. ¹
Pine Multiple <i>Pinus</i> species	Pine has over 100 subspecies marked as “Threatened,” including <i>Pinus halepensis</i> Miller, <i>P. cembra</i> L., <i>P. roxburghii</i> Sarg., <i>P. merkusii</i> Jungh & De Vriese, <i>P. radiata</i> D. Don, <i>Pseudotsuga menziessi</i> (Mirbel) Franco, <i>P. pumila</i> (Pall.) Regel, <i>P. silvestris</i> L., <i>P. sibirica</i> Du Tour, <i>P. elliotii</i> Englm, <i>P. strobus</i> L., <i>Pinus kesiya</i> , and <i>Pinus merkusii</i> . ¹¹
Ravensara Oil <i>Ravensara aromatica</i> Madagascar	Ravensara oil of Madagascar is excessively overharvested for its stem bark by one particular essential oil company to the point of threatening the species. ¹¹
Siam Wood <i>Fokienia hodginsii</i> Southeast China and Vietnam	Siam wood or Fujian cypress is on the IUCN 2017.1 Red List as “Vulnerable.” ⁶¹ Its timber is heavily prized in Vietnam for its aroma and weight and its roots are distilled to make oil for cosmetics and medicine.
Valerian Root Multiple <i>Valeriana</i> Species Nepal & Pakistan	<i>Valeriana jatamansi</i> of the Himalayas is “Endangered” in Pakistan and “Vulnerable” in Nepal. ¹¹ Several <i>Valeriana</i> species are harvested for the medicinal properties of their roots and are threatened by forest degradation. <i>V. asterothrix</i> , <i>V. buxifolia</i> , <i>V. cernua</i> , <i>V. coleophylla</i> , <i>V. leschenaultia</i> , and <i>V. secunda</i> are on the 2015.2 IUCN Red List. ⁵⁰
White Sage <i>Salvia apiana</i> California	White sage of California is on the “To Watch” list by United Plant Savers. ²⁷
Wintergreen Oil <i>Gaultheria franrantissima</i> Wall India, Java, Nepal, and China	Wintergreen oil (<i>Gaultheria franrantissima</i> Wall) of India, Java, Nepal, and China is considerably depleted according to S. India CIMAP. ¹¹



Research Websites Used in the Writing of this Article:

- IUCN Red List: www.iucnredlist.org: This is the number one authority for information on species in danger. Note that the following terms in which this organization classifies threatened species that were mentioned in this article include: “Near Threatened,” “Vulnerable,” “Endangered,” “Critically Endangered,” “Extinct in the Wild,” and “Extinct.”
- Cropwatch: www.cropwatch.org: Burfield provided a wealth of information (2005 – 2010) on aromatic plant species at risk. However, this website is no longer available.
- United Plant Saver: www.unitedplantsavers.org: This group focuses on threatened American plant species.
- CITES: www.cites.org: The Convention on International Trade in Endangered Species of Wild Fauna and Flora creates international agreements between governments to protect species.
- Additional websites that provide information about at risk plant species include:
 - www.saveplants.org
 - www.traffic.org
 - www.asnapp.org
 - www.saveourspecies.org
 - www.phytotrader.com
 - www.peopleandplants.org

References

1. IUCN Redlist (2017). Retrieved from www.iucnredlist.org. Retrieved in 2017.
2. Thulin, M. (1998). *Boswellia sacra*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7/10/15. Retrieved from www.iucnredlist.org
3. Garzuglia, M. (2006). Threatened, endangered and vulnerable tree species: a comparison between FRA 2005 and IUCN red list. FAO. Forestry Department, working paper, 108.
4. Miller, A. (2004). *Boswellia ameero*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-10-15. Retrieved from www.iucnredlist.org
5. Saha, D., Ved, D., Ravikumar, K. & Haridasan, K. 2015. *Boswellia ovalifoliolata*. The IUCN Red List of Threatened Species 2015: e.T50126567A50131280. <http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T50126567A50131280.en>. Downloaded on 27 June 2017.
6. World Conservation Monitoring Centre. 1998. *Boswellia ogadensis*. The IUCN Red List of Threatened Species 1998: e.T34385A9857791. <http://dx.doi.org/10.2305/IUCN.UK.1998.RLTS.T34385A9857791.en>. Downloaded on 27 June 2017.
7. DeCarlo, A., & Ali, S. H. (2014). Sustainable Sourcing of Phytochemicals as a Development Tool: The Case of Somaliland’s Frankincense Industry. University of Vermont.
8. Efferth, T., & Greten, H. J. (2011). Anti-inflammatory and anti-cancer activity of boswellic acids from frankincense (*Boswellia serrata* Roxb. et Colebr, *B. carterii* Birdw.). In Forum on Immunopathological Diseases and Therapeutics (Vol. 2, No. 4). Begel House Inc.
9. Frank, M. B., Yang, Q., Osban, J., Azzarello, J. T., Saban, M. R., Saban, R., & Lin, H. K. (2009). Frankincense oil derived from *Boswellia carteri* induces tumor cell specific cytotoxicity. BMC Complementary and Alternative Medicine, 9 (1), 6.
10. Farah, A. Y. (1994). The milk of the *Boswellia* forests: frankincense production among the pastoral Somali. EPOS, Environmental Policy and Society.
11. Burfield, T. (2010). Cropwatch’s Rosewood Biblio (*Aniba rosaedora* Ducke) together with other related & unrelated *Aniba* spp. Retrieved on 7/6/15. Retrieved from www.cropwatch.org/Rosewood%20Biblio%201.07.pdf (no longer available).
12. CITES (2017). Retrieved from www.cites.org. Retrieved in 2017.
13. Varty, N. (1998). *Aniba rosodora*. - The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-10-15. Retrieved from www.iucnredlist.org
14. Martins, E. M., Lamont, R. W., Martinelli, G., Lira-Medeiros, C. F., Quinet, A., & Shapcott, A. (2015). Genetic diversity and population genetic structure in three threatened *Ocotea* species (Lauraceae) from Brazil’s Atlantic Rainforest and implications for their conservation. Conservation Genetics, 16(1), 1-14.
15. Singh, S. (2013). The Socio-economic context of illegal logging and trade of rosewood along the Cambodian-Lao border.
16. Munhoz, C. A., Silva, J. V. D., & Marques, M. (2014). Demography of the endangered tree species *Ocotea porosa* (Lauraceae) along a gradient of forest disturbance in southern Brazil. Acta Botanica Brasiliica, 28(4), 617-623.
17. Barrett, M. A., Brown, J. L., Morikawa, M. K., Labat, J. N., & Yoder, A. D. (2010). CITES designation for endangered rosewood in Madagascar. Science, 328 (5982), 1109-1110.

18. Schuurman, D., & Lowry II, P. P. (2009). The Madagascar rosewood massacre. *Madagascar Conservation & Development*, 4 (2).
19. Patel, E. R. (2007). Logging of rare rosewood and palisandre (*Dalbergia* spp.) within Marojejy National Park, Madagascar. *Madagascar Conservation & Development*, 2 (1).
20. Soundararajan, V., Ravi Kumar, G., & Murugesan, K. (2015). Trade Scenario of Sandalwood and its valued oil. *International Journal of Novel Research in Marketing Management and Economics*, 2 (3), 52-59.
21. Rao, M. S., Ravikumar, G., Triveni, P. R., Rajan, V. S., & Nautiyal, S. (2016). Analysis of policies in sustaining sandalwood resources in India. In *Climate Change Challenge (3C) and Social-Economic-Ecological Interface-Building* (pp. 327-346). Springer International Publishing.
22. Indrioko, S., & Ratnaningrum, Y. W. (2015). Habitat loss caused clonality, genetic diversity reduction and reproductive failure in *Santalum album* (Santalaceae), an endangered endemic species of Indonesia. *Procedia Environmental Sciences*, 28, 657-664.
23. Rashkow, E. D. (2014). Perfumed the axe that laid it low: The endangerment of sandalwood in southern India. *Indian Economic & Social History Review*, 51 (1), 41-70.
24. Rohadi, D., Setyawati, T., Maryani, R., Riwukaho, M., Gilmour, D., Boroh, P., & Lukas, E. (2012). Strategies for Sustaining Sandalwood Resources in East Nusa Tenggara, Indonesia. *IUFRO World Series Vol. 30*, 69.
25. Jinfeng, Z., & Sinha, A. (2012). Workshop Programme. *IUFRO World Series Vol 30*, 123.
26. Logan, L., & Cole, G. (2001). New Caledonia. *Lonely Planet*.
27. United Plant Savers. (2015). Retrieved in 2015. Retrieved from www.unitedplantsavers.org
28. Pejhanmehr, M. & Adams, J. 2016. *Santalum freycinetianum*. The IUCN Red List of Threatened Species 2016: e.T62929A95817407. <http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T62929A95817407.en>. Downloaded on 27 June 2017.
29. Butaud, J. F., Rives, F., Verhaegen, D., & Bouvet, J. M. (2005). Phylogeography of Eastern Polynesian sandalwood (*Santalum insulare*), an endangered tree species from the Pacific: a study based on chloroplast microsatellites. *Journal of Biogeography*, 32 (10), 1763-74.
30. Eddowes, P. (1998). *Santalum macgregorii*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-10-2015. Retrieved from www.iucnredlist.org
31. Huish, R. D., Faka'osi, T., Likiafu, H., Mateboto, J., & Huish, K. H. (2015). Distribution, population structure, and management of a rare sandalwood (*Santalum yasi*, Santalaceae) in Fiji and Tonga. *Pacific Conservation Biology*, 21 (1), 27-37. 32. CAMP Workshops on Medicinal Plants, India. (1998). *Pterocarpus santalinus*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-24-15. Retrieved from www.iucnredlist.org
33. Gupta, R. K., Disket, J., & Mann, S. (2012). A Review on Spikenard (*Nardostachys jatamansi* DC.) -An 'Endangered' Essential Herb of India. *International Journal of Pharmaceutical Chemistry*, 2 (2), 52-60.
34. Singh, U. M., Gupta, V., Rao, V. P., Sengar, R. S., & Yadav, M. K. (2013). A review on biological activities and conservation of endangered medicinal herb *Nardostachys jatamansi*. *Int. J. Med. Arom. Plants*, 3(1), 113-124.
35. Keshari, D. S., Bishnupriya, M., Panda, P. K., & Arun, J. B. (2015). A study of various market samples of spikenard. *Global Journal of Research on Medicinal Plants & Indigenous Medicine*, 4 (3), 46.
36. Ved, D., Saha, D., Ravikumar, K. & Haridasan, K. (2015). *Hydnocarpus pentandrus*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7/22/15. Retrieved from www.iucnredlist.org
37. Singh, U. M., Yadav, D., Tripathi, M. K., Kumar, A., & Yadav, M. K. (2013). Genetic diversity analysis of *Nardostachys jatamansi* DC, an endangered medicinal plant of Central Himalaya, using random amplified polymorphic DNA (RAPD) markers. *African Journal of Biotechnology*, 12 (20), 2816-2821.
38. Nghia, N.H. 1998. *Aquilaria crassna*. The IUCN Red List of Threatened Species 1998: e.T32814A9731504. <http://dx.doi.org/10.2305/IUCN.UK.1998.RLTS.T32814A9731504.en>. Downloaded on 27 June 2017.
39. Buapech, S, Changtragoon, S. and Eiadthong, W. (2012). Genetic diversity of *Aquilaria crassna* (Thymelaeaceae) in Thailand using microsatellite markers. *IUAFO World Series 2012*.
40. atlas: *Cedrus atlantica* (Endl.) Carr. Retrieved on 7/6/15. Retrieved from www.cropwatch.org/cedarwood.htm (no longer available)
41. Thomas, P. (2013). *Cedrus atlantica*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-10-15. Retrieved from www.iucnredlist.org
42. Rumeu Ruiz, B, de Sequeira, M, Elliot, M & Gardner, M. 2011. *Juniperus cedrus*. The IUCN Red List of Threatened Species 2011: e.T30327A101032366. <http://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T30327A101032366.en>. Downloaded on 27 June 2017.
43. Rumeu, B., Vargas, P., Jaén-Molina, R., Nogales, M., & Caujapé-Castells, J. (2014). Phylogeography and genetic structure of the threatened Canarian *Juniperus cedrus* (Cupressaceae). *Botanical journal of the Linnean Society*, 175 (3), 376-394.
44. Farjon, A. (2013). *Widdringtonia whytei*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-10-15. Retrieved from www.iucnredlist.org.
45. Schnaubelt, K. (1995). *Advanced Aromatherapy: The science of essential oil therapy*. Healing Arts Press. Rochester, VT.
46. Linghai, Z., Huiming, L., Qian, Z., Yanling, C., & Boxiang, H. (2012). *Camphor Tree Resources and Utilization*. *IUFRO World Series Vol. 30*, 59.
47. El Bahloul, Y., Dauchot, N., Machtoun, I., Gaboun, F., & Van Cutsem, P. (2014). Development and characterization of microsatellite loci for the Moroccan endemic endangered species *Argania spinosa* (Sapotaceae). *Applications in plant sciences*, 2 (4).
48. Williams, S. (2005). Socio-economic aspects of the sustainable harvesting of buchu (*Agathosma betulina*) with particular emphasis on the Elandsloof community (Doctoral dissertation, University of the Western Cape). 49. Lokesh, G. B., & Chandrakanth, M. G. *Conservation of Endangered Medicinal Plant: Management of sewage water in urban fringes and water logged marshy lands in India*.
50. Ved, D., Saha, D., Ravikumar, K., & Haridasan, K. (2015). *Valeriana leschenaultia*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7/24/15. Retrieved from www.iucnredlist.org
51. Singh, R., Gangwar, S. P., Singh, D., Singh, R., Pandey, R., & Kalra, A. (2011). Medicinal plant *coleus forskohlii* briq: Disease and management. *Med Plants*, 3 (1), 1-7.
52. Knees, S. & Gardner, M. (2011). *Abies nordmanniana* ssp. *Equitrojani*. The IUCN Red List of Threatened Species. Version 2015.2.
53. Behera, M. & Raina, R. (2012). *Gentiana kurroo* Royl – A critically endangered bitter herb. *International Journal of Medicinal and Aromatic Plants*, 2 (1), 22-9.

54. Zhang, D., & Christian, T. (2013). *Chamaecyparis formosensis*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-22-15. Retrieved from www.iucnredlist.org
55. Shabir, P. A., Nawchoo, I. A., & Wani, A. A. (2010). Development of vegetative and sexual multiplication protocol for commercialization of *Inula racemosa* Hook. f.—A critically endangered medicinal plant of NW Himalaya. *Nat. Sci*, 8 (10).
56. Preetha, T. S., HemanthaKumar, A. S., & Krishnan, P. N. (2013). Shoot tip cryopreservation by vitrification in *Kaempferia galanga* L. an endangered, overexploited medicinal plant in Tropical Asia. *IOSR Journal of Pharmacy and Biological Sciences*, 8, 19-23.
57. Giri, D., & Tamta, S. (2012). Effect of pre-sowing treatments on seed germination in *Hedychium spicatum*: An important vulnerable medicinal plant of Indian Himalayan region. *Scientific Research and Essays*, 7 (19), 1835-1839.
58. Thomas, P. (2010). *Neocallitropsis pancheri*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7/24/15. Retrieved from www.iucnredlist.org
59. Yong Eui, C., ChulWoo, K., & JaeSeon, Y. (2012). Conservation and Restoration Strategy for Wild Forest Ginseng (*Panax ginseng* CA Meyer). *IUFRO World Series Vol. 30*, 79.
60. Bazlichuk, N. (2012). Norway's first red list for ecosystems. *Science Nordic*. 11/29/2012.
61. Thomas, P. & Yang, Y. (2013). *Fokienia hodginsii*. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7.24.15. Retrieved from www.iucnredlist.org
62. Saha, D., Ved, D., Ravikumar, K., & Haridasan, K. (2015).

Saussurea costus. The IUCN Red List of Threatened Species. Version 2015.2. Retrieved on 7-22-15. Retrieved from www.iucnredlist.org

63. Yooyuen, R., Duangjai, S., & Changtragoon, S. (2012). Chloroplast DNA Variation of *Dalbergia cochinchinensis* Pierre in Thailand and Laos. *IUFRO World Series Vol. 30*, 84.

64. Rimbawanto, A. (2012). Conservation of Genetic Resources of Sandalwood (*Santalum album* L. var. *album*) in Timor Islands. *IUFRO World Series Vol. 30*, 36.

About Kathy Sadowski:

Kathy Sadowski is in the process of completing her Master of Science degree in Aromatherapy with the American College of Healthcare Sciences in Portland, Oregon, with a focus on studying the scientific research of essential oils. Kathy is also a licensed massage therapist, yoga instructor, and an enthusiast for environmental protection and a healthy and natural lifestyle. You can learn more about Kathy by visiting her website at: www.earthtokathy.com

EarthToKathy.com is a subscription based website with 4,000 plus scientific research articles on plants catalogued by:

- species
- constituent
- therapeutic action



Plus: general use information, recipes, and more!

www.EarthToKathy.com

Become a student of



With original written material and videos, Aromahead Institute's user-friendly and interactive online classrooms will keep you engaged in the learning process. Our courses were created for the working adult student so you can study at your own pace. Your classes, academic resources, and support services are all easily accessible - forever.

Get started now and begin your exploration of our exceptional learning environment!

[Aromatherapy for Natural Living](#)

Discover the art of blending essential oils to create natural remedies for your family! You can have a healthy body, home, and heart—naturally!

[Aromatherapy Certification Program](#)

Become professionally qualified in the therapeutic uses of essential oils and build a strong foundation for a career in aromatherapy with our 235-hour program!

[Body Butters and Lip Balms](#)

Learn how to create your own body butters, lip balms, deodorant sticks and massage cocoa butter sticks with Aromahead's most popular course!

[Aromatherapy for Massage Therapists](#)

Explore a comprehensive and exciting foundation of aromatherapy and gain proficiency in a core set of 20 essential oils to add to your bodywork practice!



.....
Sign Up In Minutes • Start Immediately • Keep It Forever

www.aromahead.com



Autumn Recipes

Contributed by NAHA Directors

NAHA Directors are both diverse and knowledgeable in their various areas of aromatherapy expertise! Here is a roundup of some of their favorite Autumn recipes!

Autumn Delight Synergy

By Annette Davis
(Idaho, NAHA President)

This is a master synergy blend; it makes about 1 oz.

Essential Oils:

- 220 drops spruce (*Picea alba*)
 - 220 drops cedarwood Atlas (*Cedrus atlantica*)
 - 220 drops sweet orange (*Citrus sinensis*)
 - 50 drops clove bud (*Eugenia caryophyllata*)
 - 50 drops cinnamon bark
(*Cinnamomum zeylanicum*)
-

Directions for Making and Use:

Mix together the essential oils in a suitable bottle. Diffuse drops of the blend (according to manufacturer's guidelines) with a nebulizer, ultrasonic machine, potpourri or wax warmer, light bulb ring, etc.

Cautions: The blend may harm wood finishes and plastics. This blend is not intended for topical use unless highly diluted in a carrier (maximum 1% blend in 99% carrier base). May irritate sensitive skin. Not for use by children under 12 years of age. Avoid use in pregnancy. Avoid eye area and mucous membranes. Keep out of reach of children and pets.

Annette's Tips: This blend will fill your home or office with the delightful aroma of spicy autumn walks in the woods while purifying the air.

Immune Support Blend

By Angela Sidlo (Oregon)

Ingredients:

1 oz. jojoba (*Simmondsia chinensis*)

Essential Oils:

- 1 drop juniper berry (*Juniperus communis*)
 - 3 drops lemon (*Citrus x limon*)
 - 2 drops marjoram, sweet (*Origanum marjorana*)
 - 1 drop cistus (*Cistus ladaniferus*)
 - 3 drops ravintsara
(*Cinnamomum camphora* ct. cineole)
-

Directions for Making and Use:

Blend essential oils in 1 oz. of jojoba oil in PET bottle with treatment pump top. Gently rock the bottle back and forth to mix essential oils with carrier oil and place the top on the bottle. Rub a small amount of the blend on skin in the throat area, chest and feet 1-2 times a day.

Cautions: Avoid use in pregnancy. Avoid use with kidney disease. Avoid use with infants or children under the age of two. In addition, keep out of reach of children and pets. Avoid eye area. Discontinue use if skin irritation occurs.

Angela's Tips: This blend can be useful in the fall to get a jump start on the cold and flu season. I love the warm cozy feeling it gives me.

Garden-fresh Mineral Tooth Powder

By [Valerie Cooksley, RN, OCN, FAAIM, CERT](#)
(Texas)

Supplies and Ingredients:

4 tsp. baking soda
1 tsp. sea salt (fine ground)
1 tsp. dry 'rubbed' sage (*Salvia officinalis*) herb
Lemon juice and water to moisten toothbrush

Essential Oils:

1 drop peppermint (*Mentha x piperita*)
1 drop clove (*Eugenia caryophyllata* or
Syzygium aromaticum)

Directions for Making and Use:

Combine baking soda and sea salt in a small bowl. Add the drops of essential oil to the sage and grind in a separate dish or mortar and pestle. Carefully check that the sage is finely ground or "rubbed," discarding any rough parts, or stem pieces. Add to the sea salt mix, label and bottle. Store in a wide-mouth jar or a small soft squeezable silicone bottle works well. This dry tooth powder lasts indefinitely.

To use, moisten toothbrush with lemon juice or water and dip into tooth powder (or sprinkle it from a bottle). Brush gently. Rinse thoroughly.

Cautions: Avoid use in pregnancy. Avoid use with babies and young children.

Valerie's Tips: Lemon juice when added to baking soda causes a fizzing action and it is known to whiten tooth enamel, although you will want to rinse well with water since it is acidic in pH. This makes an excellent tooth polisher and it is completely natural!

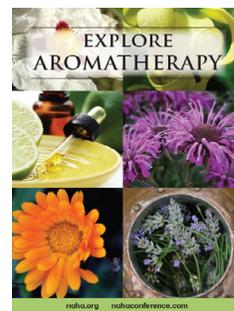
Adapted from *Aromatherapy - A Holistic Guide to Natural Healing with Essential Oils*, Cooksley, V., Floramed Publishing, USA, 2015 available in the [NAHA bookstore](#).

Click here to find a NAHA Director in your area.

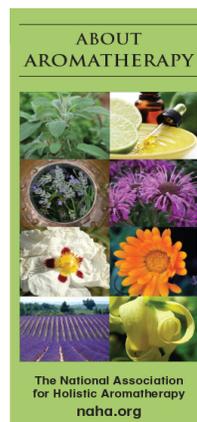


Explore Aromatherapy

NAHA's Explore Aromatherapy booklet is a beautiful 12-page resource for information on aromatherapy. It is an educational tool to help you educate others in the benefits of aromatherapy (essential oils, base oils, hydrosols, applications and more). Members download a free copy via your Membership page. Order additional print copies [here](#).



About Aromatherapy



NAHA's About Aromatherapy tri-fold brochure provides an introductory resource for information on Aromatherapy and Safety. There is space on the back cover to place your contact information. Members download a free copy via your membership page. Order additional print copies [here](#).



INSTITUTE OF HOLISTIC
PHYTO-AROMATHERAPY

Become A Certified Aromatherapist

BEGIN YOUR JOURNEY

The Institute is the 1st to offer live-streaming aromatherapy course instruction!

240 hour Aromatherapy Certification Program (ACP).

This program is directed towards students that are Essential Oil enthusiasts OR have the goal of becoming an Aromatherapy Professional. Upon completion of this course you will have a solid foundation and ability to launch a new career or business.

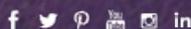
Enrolled students will have direct access to the Institutes all inclusive program:

- * Live streaming interactive course instruction.
- * A beautifully pre-printed tactile core curriculum.
- * Exclusive video learning library.
- * Instructor supervised private student community forum.
- * Detailed guidance and direction on how to create your own personal brand/label, including product formulation guidelines, and regulations, upon successful completion of the program.



Learn The Art & Science of Therapeutic Plant Based Treatments To Support Your Health

Visit our website for more information: AuthenticAromatherapyEducation.com



Call to reserve your seat in class today! 1-800-909-6985



AROMATHERAPY PUBLICATIONS

NAHA Aromatherapy Journal www.naha.org

Aromatherapy Thymes
www.aromatherapythymes.com

Aromatherapy Today Journal
www.aromatherapytoday.com

**International Journal of
Clinical Aromatherapy** www.ijca.net

**International Journal of Professional
Holistic Aromatherapy** www.ijpha.com

International Federation of Professional Aromatherapists
www.ifparoma.org



NAHA Marketplace

AROMATHERAPY COMPANIES

Amrita Aromatherapy Inc

Amrita is the only certified-organic aromatherapy company in the U.S. Amrita is run by therapists for therapists. NEW certified-organic oils: Himalayan Cedar, Lemongrass, Citronella, East Indian Sandalwood, Vetiver and much more. Certified-organic perfumes. All oils GC verified. Can supply any oil in a certified-organic version upon request. Now in its 23rd year, Amrita was founded by master aromatherapist Dr. Christoph Streicher. Full line of nebulizing diffusers. 100% natural, chemical-free skin care.

amrita.net

Arlys Naturals

ARLYS specializes in 100% pure essential oils, absolutes, synergies, hydrosols, carrier oils and more for the novice to the professional. An "aromatic oasis" for the senses as you shop for professional grade natural skin and body care products, diffusers, herbal teas, books, soaps, music, perfumery, and supplies. All distinctive aromatherapy products to enhance your health and well-being. Sign up for our free online monthly newsletter. Online Catalog Only, Retail/Wholesale

ArlysNaturals.com

AromaWeb

AromaWeb provides over 450 pages of essential and carrier oil profiles, a vast aromatherapy article library, recipes, book reviews and directories of aromatherapy retailers, wholesalers, educators and distillers. Over 3.5 million page views annually. AromaWeb can play a powerful

role in promoting your business. Reach thousands of consumers, aromatherapy enthusiasts and professionals. Advertising opportunities available. NAHA Members: Save 10% on your new business listing or banner advertising purchase by mentioning NAHA. Email for details.

aromaweb.com

Artisan Aromatics

Artisan Aromatics provides therapeutic quality essential oils procured from smaller suppliers and artisan distillers worldwide. We've been in the essential oil business since 1993 when we first began importing therapeutic quality essential oils for healthcare practitioners, clinics and hospitals. Our aromatherapy quality essential oils are selected with the help of our aromatherapy consultant, Dr. Joie Power, internationally known aromatherapy expert. We offer 150+ therapeutic quality essential oils, blends, rare organic enfleurage oils and more. NAHA members who register as Practitioners receive up to a 30% discount. Bulk, wholesale and private labeling is also available.

www.artisanessentialoils.com

Birch Hill Happenings Aromatherapy, LLC

We have 100% Pure Essential oils for use in Therapeutic Aromatherapy. Also a large selection of aromatherapy supplies including carrier oils and unscented personal care base products, many styles of diffusers, charts and decoders, bottles and more. Your One Stop Aromatherapy shop! Questions answered and Consultations by e-mail. Easy ordering and shipping. Fast friendly service. Sign up to get our monthly newsletter and tips.

birchhillhappenings.com

NAHA Marketplace

Floracopeia

Floracopeia was established to provide the highest quality aromatic treasures, support ecological agriculture, and promote traditional plant-based knowledge. We believe in grass roots health care, and that everyone should know how to use pure essential oils and herbs safely to support their own health. We offer only the finest aromatic products, carefully sourced from small distillers all over the globe: 100% pure wildcrafted and organic essential oils and hydrosols, flower Essences, skin care products, natural perfumes and attars, natural incenses and resins, educational courses and books.

www.floracopeia.com

JennScents Aromatherapy

Provides 100% pure, therapeutic products (pre-made and custom blends), 100% pure essential oils, carriers and aromatherapy accessories at wholesale and retail. Offers Aromatherapy Certification Courses live and via DVD, Massage Therapy CEU, Aromatherapy Support Material such as Aromatherapy Business Guide and JennScents Recipe Guides for humans and pets.

jennscents.com

Natural Options Aromatherapy, Inc.

Owned by George & Vickie Cox, Natural Options offers NAHA Approved aromatherapy certification courses (Level I & Level II programs). NCBTMB Massage CE's are available. We offer high quality essential oils and aromatherapy blends, bulk creams, oils, and carriers. Great pricing on inhalers and diffusers. Our customers include hospitals, nursing facilities, hospices, spas, massage clinics, and the general public. IonInfra Ionic Detox machines are also available. Wholesale and Private Label packaging available. 40% discount off retail on most products for NAHA members.

naturaloptions.us

New Directions Aromatics

Certified organic processor offering pure essential oils for therapeutic use. Discover hard to find oils and natural products including wild crafted and conventional types. You will be amazed at our extensive line of carrier oils, extracts, absolutes, ayurvedics, cosmetic and soap bases, specialty packaging and much more. Purchasing directly from distilleries and producers worldwide enables us to offer premium quality products at wholesale pricing. ISO certified with a knowledgeable and friendly customer service and a 100% customer satisfaction guarantee.

newdirectionsaromatics.com

Plant Therapy

Plant Therapy is the premier destination for essential oils, KidSafe blends, carrier oils, hydrosols, USDA Certified Organic products, and more! At Plant Therapy we have always believed in exceptional quality, the purest ingredients, and the desire to positively impact as many people as humanly possible. Ultimately, we feel this is possible by providing our customers with an exceptional experience that keeps them coming back. Plant Therapy's quality control procedures are some of the strictest in the industry. Each oil offered by Plant Therapy has gone through multiple rounds of testing and has been approved by Robert Tisserand and our team of Certified Aromatherapists. Every bottle of oil that you purchase from Plant Therapy will have a specific batch code that is linked to batch specific GC-MS reports which can be found on the product page. With free shipping and free returns, you can't go wrong with Plant Therapy!

www.planttherapy.com

NAHA Marketplace

Time Laboratories

Founded by Annemarie Buhler in 1973, Time Laboratories stands as a pioneer in the natural products industry. We incorporate only the highest quality research-based essential oils, plant extracts, and other raw materials into innovative formulations offered to our customers at competitive prices. We offer a full line of: pure and genuine distiller direct essential oils, authentic aromatherapy products, natural skin care products, bath & spa products, herbal supplements, capsules and tablets, mother tinctures, gemmotherapy glycerin macerats. Choose from our extensive stock line, or allow us to custom formulate for you. We look forward to hearing from you! 877-846-3522

timelabs.com

US Organic

US Organic manufactures only USDA certified organic aromatherapy, skin care products and DIY ingredients such as Essential oils, Carrier oils, baby oil, body oils and more. All of US Organic products are also cruelty-free, and not animal tested. Most of ingredients are imported directly from the certified organic farms over the world and manufactured at our own FDA-registered, USDA-certified and GMP-certified facility. We are inspected by number of municipal and government agencies periodically and it meets or exceed all municipal and government standards. Our principles are honesty and responsibility rather than chasing profits. We are dedicated to providing our customers with the very best products with the highest best quality ingredients.

www.us-organic.com

Your Body Needs...

Your Body Needs...provides 100% pure essential oils, carrier oils and aromatherapy accessories. The company also has its own line of aromatherapy based body products such as body oils and muscle therapy cream. We provide aromatherapy classes on a regular schedule and personal consultations specializing in custom face oils for skin care, and personal blends for stresses of daily living due to physical or mental stress. In business since 2008, Your Body Needs...has developed relationships with distillers and educators in the field all around the world. We are dedicated to quality of product and our customers.

YourBodyNeeds.com

AROMATHERAPY SCHOOLS & CORRESPONDENCE COURSES

American College of Healthcare Sciences

Experience the nation's only DEAC-accredited, NAHA-Approved Level 1 and 2 essential oil therapy courses and programs, including the Master of Science in Aromatherapy degree program. ACHS's professional programs provide the administrative, scientific, clinical, and ethical training required to become a successful aromatherapy or wellness professional. Undergraduate and graduate programs including holistic nutrition, herbal medicine, and wellness coaching. On-demand CEs in aromatherapy and wellness topics also available for many professionals including Registered Aromatherapists (RA). ACHS specializes in certified organic and sustainably sourced essential oils and botanicals. Practitioner wholesale pricing available.

www.achs.edu

NAHA Marketplace

Aromahead Institute School of Essential Oil Studies

Instructor: Andrea Butje. Learn online or in person. 200 hour NAHA approved Certification Program (level 1 and 2 covered in a single course). Improve your skills and advance the Aromatherapy Profession by completing Aromahead's Scholar's Program, a 400 hour certification consisting of advanced aromatherapy chemistry, therapeutic blending, business skills, teacher training, and incorporating a wider range of essential oils. Classes approved for Massage Therapy CEU's in Florida, New York and by the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB). aromahead.com

Aroma Apothecary Healing Arts Academy

Aroma Apothecary Healing Arts Academy is an aromatherapy and holistic healing school. We invite you to learn nature's pharmacy and natural healing methods. We offer professional aromatherapy certification courses and quality products for health professionals, holistic retailers and those who have an interest in aromatherapy and natural healing. Aroma Apothecary Healing Arts Academy has been an Approved School and Continuing Education Provider by the National Association for Holistic Aromatherapy (NAHA) and the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB), since 2002. www.learnaroma.com

Aroma Hut Institute

Aroma Hut Institute offers professional quality clinical aromatherapy courses online and in-person. Training includes Aromatherapy Certification programs for Level 1 Foundation (50 hours) and Level 2 Advanced Clinical (200 hours). Continuing Education approved by NCBTMB, and

available for Florida LMT's. Teacher Training courses are available to graduates who are interested in starting their own Aroma Hut School. Rebecca Park Totilo, in-house apothecary formulator and instructor, is a best-selling author of over 40 books including, Organic Beauty With Essential Oil, Therapeutic Blending With Essential Oil and Heal With Oil. Rebecca has over twenty-five years of experience as an international educator, specializing in the ancient biblical healing arts. www.aromahut.com

Ashi Aromatics – Animal Aromatherapy Education

Do you love animals? Looking for an exciting career working with animals? If so, check out our: Animal Aromatherapy Practitioner Certification Course(sm). Our course offers a 300+ hour educational module program, individual mentor-based training with course content specific to animal aromatherapy/flower essences. Approved by NAHA, H.A.A. & NCBTMB. Instructor: Kelly Holland Azzaro, RA, CCAP, CBFP, LMT offers over 25 years professional animal aromatherapy experience. PETA Approved Cruelty-free Vegan products for people and their animal friends.

animalaromatherapy.com

Institute of Integrative Aromatherapy

Institute of Integrative Aromatherapy: The Certificate Program in Integrative Aromatherapy offers a very comprehensive, clinical and holistic focused, correspondence course for health professionals and non-professionals. You will be personally mentored by author and Holistic Nurse Aromatherapist, Valerie Cooksley. The certification is fully endorsed by the AHNA, NCBTMB and NAHA (Level I and II). Contact hours available for Nurses and Massage therapists. Contact: Valerie Cooksley, RN OCN, FAAIM. floramedica.com



NAHA Marketplace

Institute of Integrative Aromatherapy - Boulder, CO

The Integrative Aromatherapy® Certificate Program, established in 1998, provides a nationally recognized professional and clinical distance learning program that includes one- to-one mentoring with the expert nurse aromatherapist, Laraine Kyle Pounds, RN, BSN, MSN, CMT. This extensive program includes the basics as well as specialized essential oil applications for holistic and integrative healthcare. This program has been nationally endorsed by NAHA for Levels I and II, and approved for educational contact hours for nurses and massage therapists through AHNA and NCBTMB. aroma-rn.com

The School for Aromatic Studies

Instructor: Jade Shutes. The SFAS is a WA state approved post-secondary educational facility offering Foundations, Advanced Graduate certificate programs in Holistic and Clinical Aromatherapy. Classes are offered throughout the United States, including Seattle, WA, New York, NY, St. Louis, MO and Chapel Hill, NC. The school features a NEW Online Organic Body Care Products Certification program and a comprehensive Online program on the Aromatic Chemistry: By and For the Aromatherapist. Other specialized certification programs include: Aromatic Applications for the Skin and the Dynamics of Blending. Jade also offers a range of Reference manuals. Approved for Massage Therapy CE hours in Florida and Nationally through NCBTMB.

aromaticstudies.com

Sedona Aromatherapie LLC

With a decade of professional experience in the United States, and a decade spent in the UK healthcare services, UK-certified aromatherapist Sharon Falsetto tutors the comprehensive home study aromatherapy program, *The Linguistics of Aromatics*™

(NAHA approved levels 1 and 2). She also works as a consultant, custom blend formulator, and a professional writer and editor. Sharon works exclusively from her aromatic studio, distillation room, and aromatic gardens on a one acre homestead in Sedona, Arizona. Short in-person classes coming in 2018!

sedonaaromatherapie.com

NATURAL HEALTH CLINICS

Endobiogenic Integrative Medical Center (EIMC)

CHALLENGING HEALTH ISSUES? JUST DON'T FEEL WELL? WE CAN HELP! We use innovative techniques to treat a wide range of conditions. Our clinic was founded in 2005 in cooperation with Dr. Jean Bokelmann and the Idaho State University Integrative Health Clinic. The Endobiogenic Concept® was developed by French medical doctors Christian Duraffourd and Jean Claude Lapraz. Our Endobiogeny team uses this personalized approach to wellness to focus on the cause of disease rather than just symptoms. Based on modern physiology and endocrinology, Endobiogeny is an innovative natural approach to wellness that identifies the imbalances, unique to the human body, that are causing suffering. Endobiogeny focuses on the root causes of disease, not just symptoms. Individualized Phyto-Aromatherapy treatments include essential oils, herbs, supplements, diet & lifestyle changes. Location: Pocatello, Idaho - Face-to-face and remote appointments available.

www.endobiogenic.com

**Advertise in the NAHA Journal & Marketplace.
Click here to download the Media Guide.**

NAHA Marketplace

NATURAL HEALTH RESOURCES & PUBLICATIONS

Alternatives for Healing

Alternatives for Healing is a leading alternative and complementary medicine directory for finding holistic practitioners, products, books, CDs, DVDs, stores, magazines, schools, workshops, retreats, newsletters, talk radio, videos and more. NAHA arranged a discount for our member Practitioners who want to be listed in their directory. This discounted rate is a \$15.00 savings. To take advantage of this opportunity, use coupon code ADFAFH14 when joining through the website or contact Sonja Torres at 303-476-1714.

AlternativesForHealing.com

The Dunes East Hampton

At The Dunes, we have a program that will be tailored to fit your needs or the needs of a loved one struggling with addiction. We get to the root of the cause for the addiction and address any conditions contributing to

or resulting from the addiction. We provide state-of-the-art medical care, administered by our world-renowned team of psychological and clinical professionals. Our expert treatment and care along with our private location and luxurious accommodations have proven to be the winning combination needed to find long term success with addiction rehab.

theduneseasthampton.com

Sedona Journal Of Emergence

For nearly 30 years, the Sedona Journal of Emergence has been a respected magazine on conscious awakening. We offer channeled and inspired guidance to help readers live benevolent lives as they expand in consciousness and awaken their abilities on their personal journeys of transformation and spiritual well-being. The Journal is a comprehensive resource for spiritual living and features articles on angel guidance, dream analysis, astrology, conscious living and more.

www.sedonajournal.com

NAHA

**Advertise and Promote
Your Business in the
Aromatherapy Journal**

Click [here](#) for more information



Disclaimer: NAHA and the NAHA Editorial Board cannot accept responsibility or liability for the information contained in the NAHA Aromatherapy Journal, E-Booklets or on the NAHA Website. The information is shared for educational purposes only and is not intended to diagnose or take the place of professional healthcare. The opinions expressed by the authors in this journal or NAHA's e-booklets do not necessarily reflect the opinions of NAHA.

Please consult your health care practitioner if you are pregnant or have been diagnosed with any serious healthcare problems before using essential oils. Keep all aromatherapy products out of reach of children and pets. Before using essential oils and aromatherapy products please consult with a professional aromatherapist.

NAHA asks that all authors and contributors include information on safe use of essential oils and clearly define each essential oil's common name and Latin binomial(s). NAHA has the right to accept or reject any articles, advertisements or content submitted. NAHA website is a resource-full area for information on Aromatherapy Safety, Applications and Uses. www.naha.org

BEYOND AROMATICS

NAHA WOA IX • OCTOBER 24-27, 2018 • UNIVERSITY OF UTAH CONFERENCE CENTER & BOTANICAL GARDEN

CONFERENCE SPEAKERS & SPONSOR OPPORTUNITIES

Be a part of the NAHA World of Aromatherapy IX

Call for 2018 Speakers:
[Click here](#) to download the
conference presenter
application

[Click here](#) for
Conference Sponsorship
Opportunities



Photographs this page used with permission from Gabriel Mojay, Annette Davis and Wendy Robbins.

NAHA 

nahaconference.com



National Association for Holistic Aromatherapy
Building Strength through Community and Education



Join us and Receive the Benefits of Membership:

- ✿ Subscription to NAHA's Aromatherapy E-Journal
- ✿ Monthly E-Newsletters, Updates, and Blog postings
- ✿ Monthly Webinars
- ✿ Discount Registration to WOA Conferences
- ✿ Discount Advertising Opportunities
- ✿ Aromatherapy Books Special Offers
- ✿ About Aromatherapy Brochure
- ✿ Explore Aromatherapy Booklet
- ✿ Special Topic E-booklets
- ✿ Networking Opportunities
- ✿ Certificate of Membership
- ✿ Membership Directory
- ✿ Professional Liability Insurance Options
- ✿ Free Calendar of Events Postings
- ✿ Access to Members Only area of website
- ✿ Find An Aromatherapist Listing
- ✿ NAHA Member Logo Use

Membership Benefits Vary Based on NAHA Membership Categories.

[Click here to join NAHA today!](#)

Email: info@naha.org or Call: 919.894.0298