



**Introducing Essential Oils** to the Licensed Acupuncturist

a five hour ceu/pda course - copyright 2015 by Harvey Kaltsas, AP, Dipl. Ac. NCCAOM It is said that there are three types of intelligence at play in life: animal, vegetable, and mineral. Humans may represent the highest expression of intelligence among animal life (a debatable point), Crystals represent the clearest expression of mineral intelligence, and essential oils can be understood to express best the spirit and intelligence of plants - most directly through the fragrance and taste bearing volatile molecules derived from their flowers or from the sap that flows through them.

In traditional cultures, the most valued possessions were jewels, precious metals, and essential oils. Indeed, the Three Wise Men reportedly brought gold, frankincense, and myrrh to the crèche of baby Jesus - gold for obvious reasons, but frankincense and myrrh were also treasures in their own right, renowned for their medical, aesthetic, and soul stirring qualities as well. Most essential oils share these characteristics. They affect people on physical, emotional, and spiritual levels and have been used from time immemorial to heal, to induce creativity, and to attain spiritual insight and connection.

There has been a revival in the use of essential oils during the last hundred years, and Robert Tisserand is one of the pioneer teachers on how to use essential oils in modern aromatherapy. His short but thorough description of essential oils is excellent introductory reading and provides deep understanding of the topic. However, lacking permission to quote from his work, I will simply refer interested students to his web link:

http://roberttisserand.com/about/essential-oils/

# **Keys to successful treatment**

Informed by the wisdom of traditional medicines, health care providers worldwide have treated with essential oils for millenia, curing many ailments. This is historical fact. Note, however, that by law Florida acupuncturists are prohibited from using the word cure, regardless of what effects we produce with our patients. Thus I must preface remarks about the effectiveness of essential oils with this observation: although I do not say they cure anything when properly administered, essential oils can make ailments go away. Serious ailments. Far away.

Of course, successful treatment with essential oils depends upon several factors:

- correct diagnosis of the patient
- appropriate selection of oils
- therapeutic properties of select essential oils
- purity and safety of the oils used
- proper method of administration
- understanding of contraindications
- Knowledge of clinical pearls

It is beyond the scope of this course to cover all these areas in depth. Instead, this will be an introduction to the aforementioned topics and a guide to resources.

## **Correct Diagnosis of the Patient**

In his essential work on essential oils, **Clinical Aromatherapy**, master aromatherapist and Licensed Acupuncturist Peter Holmes considers essential oils to be the pure energy of the plant. As such, they affect the energy systems of the human body, mind, and spirit. Holmes writes at length about approaches to diagnosis to be used in aromatherapy, and he distinguishes between two traditions - the holistic and the scientific. The holistic - represented by traditional diagnostic parameters of the Chinese (TCM), the Hindu (Ayuverdic), and the Greek (Tibb Unani) - seeks to understand the condition of the patient and employs essential oils to treat and rebalance the patient. The scientific approach seeks to understand the properties of the essential oils and how they address specific diseases, irrespective of the patient. Thus, one approach treats the patient (holistic), the other treats the disease (scientific).

This course will predominantly explore the holistic approach and will make use of TCM diagnostic criteria; however, Holmes prefers using the Greek Tibb Unani four element system, which is very similar to the Chinese, with some differences. To gain a quick understanding of Tibb Unani, please visit this NIH web link:

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3252723/

There are several diagnostic criteria to assess using TCM models:

• Diagnosis by identification of patterns according to the **eight principles**. For example, is the patient too warm or too cold? Too warm, use cooling oils. Too cold, use warming oils.

# Oils according to warming/cooling qualities

<b>Essential oils</b>	Warming	Slightly cool neutral	Neutral
	Black Pepper	Clary Sage	Amyris
	Benzoin	Hyssop	Cedarwood
	Cardamom (somewhat	Laurel	Eucalyptus
	Cinnamon (somewhat)	Marjoram	Myrrh
	Clove	Rosemary	Niaouli
	Ginger	Sage	Patchouli
	Helichrysum(somewhat)	Spearmint	Ravinstra
	Jasmine (somewhat)		Rosemary ct cineole
	Nutmeg		Sandalwood
	Pettigrain		Siam wood
			Tea Tree
	Cooling	Slightly warm neutral	
	Citronella	Bergamot	
	Lemon	Mandarin	
	Lemongrass	Sweet Orange	
	May chang		
	Melissa		

Diagnosis by identification of patterns according to the acupuncture channels involved.
 Specific essential oils have an affinity for specific channels; for example and not surprisingly, rose enters the heart channel and cinnamon enters the kidney channel. See chart below.

# Oils according to Acupuncture Channels Entered

Acupuncture Channel Entered Essential oils

Heart	Lavender	Marjoram	May chang
	Neroli	Palmarosa	Rose
Spleen	Geranium	Lemon	Juniper berry
	Rosemary	Thyme	Vetiver
Lung	Cypress	Eucalyptus	Fennel
	Hyssop	Rosemary	Siberian Fir
Kidney	Tropical Basil	Black Spruce	Cinnamon
	Clove	Ginger	Pine
Liver	Bergamot	Blue Tansy	Clary Sage
	German Chamomile	Jasmine	Mandarin
	Peppermint	Roman Chamomile	Rose

One way to treat is to soak a Q-tip in the appropriate essential oil and apply it directly onto the acupoints indicated for the condition. Make further refinements in oil selection for acupoints informed by the diagnostic parameters and chart below.

- Diagnosis by identification of patterns according to which of the five elements are imbalanced. Some oils address Liver Qi stagnation, others Liver blood deficiency, still others Lung Qi deficiency. Oils can be and are classified as belonging to different of the five elements for both physical and psychological effects.
- Diagnosis by identification of patterns according to the internal organs (Zang Fu). For example, some oils treat Spleen qi deficiency, others treat wind heat invasion of the lungs.

Again, see chart below.

## Oils according to Five Elements and Organs

Five Elements/Organs	Essential Oils -	(+) for excess conditions	(-) for deficiency conditions
Fire/Heart-S.IP.CT.W.		Lavender (+) Lime (+) Marjoram (+), May chang (+)	Neroli (-) Palmarosa (-)
Earth/Spleen-Stomach		Juniper Berry (+) Patchouli (+) Sage (+) Thyme (+)	Rosemary (-) Palmarosa (-) Vetiver (-)
Metal/Lungs-L.I.		Cypress (+) Grand Fir (+) Siberian Fir (+)	Black Spruce (-) Hyssop (-) Rosemary (-) Silver Fir (-) Tea Tree (-)
Water/Kidney-U.B.			Black Spruce (-) Cinnamon Bark (-) Clove (-) Ginger (-)
Wood /Liver. G.B.		Bergamot (+) Blue Tansy (+) German Chamomile (+) Mandarin (+) Roman Chamomile (+)	Clary Sage (-) Geranium (-) Jasmine (-) Rose (-)

## **Appropriate Selection of Oils**

Peter Homes considers essential oils to have 3 fragrance parameters (tone, intensity, and tenacity). When we think of parameters pertaining to our sense of smell, think of our sense of hearing which discerns pitch in terms of high, middle, and base tones. Fragrances also have tones of high, middle, and base. Tones describe certain qualities of the smell of the oils. Are they high or low, light or heavy, clear or diffuse, cold or warm, light or dark, sharp or smooth, clear or diffuse? Contrast the smell of a sharp cheddar cheese vs. the smooth, round scent of a rose. Each has a different tone. Generally, but not always High or top tones tend to energize/yangize/tonify/stimulate the patient, Middle tones are more neutral, and base tones relax/yin-ize/sedate/calm the patient.

Tones are the most important factor in ascertaining whether the essential oils will energize/yangize/tonify/stimulate or relax/yin-ize/sedate/calm the patient. High tone oils tend to raise the body's energy to the head. Middle tone oils are neutral or centering; and base tone oils tend to root the body's energy downward.

Intensity indicates how strong the odor is. Ever get on an elevator and almost gag at the perfume someone is wearing? Chances are she was sporting a loud, high intensity, low quality, chemically distilled or enhanced oil. Intensity of oils runs the gamut from low to medium to high intensity with qualities ranging from gentle, quiet, small and soft to aggressive, expansive, forceful, and loud. On the chart below I've classified intensity of oils on a scale from 1 to 5, where low intensity oils are a 1, medium intensity oils are a 3, and high intensity oils are a 5.

Tenacity refers to how long an essential oil odor holds (tenacious) or persists after being applied or exposed to the air. I've classified tenacity of oils on a scale from 1 to 5, where poor tenacity oils are a 1, medium tenacity oils are a 3 and high intensity oils are a five.

Essential Oil	High Tone	Middle Tone	Base Tone	Intensity	Tenacity
Basil	X			4	
Bergamot	X	X		2	
Black Pepper		X		3	
Black Spruce		X		1	1
Blue Tansy		X		5	1
Cassia		X		5	
Cedarwood			X	3	
Cinnamon			X	5	
Clary Sage		X			
Clove		X	X	5	
Cypress		X		3	
Eucalyptus	X	X		3	
Frankincense		X		3	4
Geranium			X	3 to 4	3
Ginger		X		4	3
Helichrysum		X		3	5
Jasmine		X		5	4
Juniper		X		2	
Lavender	X			3	3
Lemon	X			3	
Mandarin		X		3	1
Marjoram		X		3	
May Chang	X				
Neroli	X				1
Niaouli	X			3	1

Essential Oil	High Tone	Middle Tone	Base Tone	Intensity	Tenacity
Oregano		X		5	
Palmarosa		X		4	3
Patchouli			X	4	4
Peppermint		X		5	
Roman		X		4	
Chamomile					
Rose		X	X	5	3
Rosemary	X			5	2
Sandalwood			X	3	5
Thyme		X		4	
Vetiver			X	5	5
White Fir		X		3	
Ylang Ylang		X		5+	3

Besides categories for tone, intensity, and tenacity of essential oils, there are other distinctions to make, particularly the fragrances of which six main categories:

- Lemony (found in high tone oils)
- Pungent (found in high tone oils)
- Green (found in middle tone oils)
- Sweet (found in middle tone oils)
- Rooty (found in base tone oils)
- Woody (found in base tone oils)

There are also subsets of these categories:

- Fresh/Pungent (found in high tone oils) to treat cold, damp, weak conditions
- Spicy/Pungent (found in high tone oils) to treat cold and weak conditions
- Fresh/Lemony (found in high tone oils) to treat damp, stuck, toxic conditions
- Green/Lemony (found in high tone oils) to treat damp, hot, stuck, tight conditions
- Lemony/Sweet (found in middle tone oils) - to treat tense, weak, choppy, erratic conditions
- Rosy/Sweet (found in middle tone oils) to treat damp, erratic, stuck, weak conditions

- Sweet/Green (found in middle tone oils)
   to treat erratic, hot, tense conditions
- Herbaceous/Green (found in middle tone oils) - to treat erratic, hot tense conditions
- Pungent/Green (found in middle tone oils) - to treat damp, stuck, weak conditions
- Pungent/Woody (found in base tone oils)
   to treat damp, stuck, weak conditions
- Sweet/Green (found in base tone oils) to treat damp, tense, weak conditions
- Rooty (found in base tone oils) to treat hot and tense conditions

This chart categorizes High tone oils by fragrance.

Essential Oil	High Tone	Fresh/Pungent	Spicy/Pungent	Fresh/Lemony	Green/Lemony
Basil	X				
Bergamot	X				
Eucalyptus		X			
Lavender					
Lemon					
May Chang					
Neroli					
Niaouli		X			
Rosemary		X			

This chart categorizes Middle tone oils by fragrance.

Essential Oil	Middle Tone	Lemony/Sweet	Rosy/Sweet	Sweet/Green	Green/Pungent
Basil	X				
Bergamot	X				
Eucalyptus		X			
Lavender					
Lemon					
May Chang					
Neroli					
Niaouli		X			
Rosemary		X			

This chart categorizes Base tone oils by fragrance.

Essential Oil	Base Tone	Pungent/Woody	Sweet/Woody	Rooty
Basil	X			
Bergamot	X			
Eucalyptus		X		
Lavender				
Lemon				
May Chang				
Neroli				
Niaouli		X		
Rosemary		X		

# **Purity and Safety of Oils**

Regarding purity of oils, recently some large multi-level marketing (M-L-M) companies have entered the field and popularized the unsupervised use of essential oils as a home remedy by the general public. The products of these companies generally sell for 200-300% of the retail cost of the highest quality oils available from traditional suppliers, reason enough to avoid the M-L-M's. There are other reasons as well. Some claim to be using certified oils when the

certification process to which they refer is wholly one of their own fabrication, recognized by no one else. At best that certification represents a crass marketing ploy.

### An example of bad advice:

Of even greater concern is the advice given by some M-L-M's on how to use essential oils. When first introduced to them by an M-L-M representative, I was told and read that oregano oil is effective for treating infections and should be applied undiluted and directly onto wounds. One day while pruning tree branches, I cut myself with a rusty saw. Remembering the advice about oregano oil, I applied some right onto my wound. That procedure sanitized the cut all right. Moreover, it created a severe chemical burn that left me in severe local pain for a day, deeply eroded the skin for a half inch around the cut, and took two weeks to heal (with the aid of the classic Chinese herbal salve Ching Wan Hung applied topically). For the record, oregano should never be applied undiluted directly to the skin; and when it is mixed with water or carrier oil such as fractionated coconut for internal use (another M- L-M suggestion), it kills both healthy and unhealthy bacteria in the intestinal tract.

### Another example of questionable advice:

Recently a European patient presented wanting to know if she had breast cancer and how I would treat it. I did a thermographic analysis using the methods described in my course *Medical Imaging via Thermography* and found a huge temperature differential - the left breast was much warmer than the right in two quadrants. Moreover, her left nipple had turned black, in stark contrast to the pink nipple on the right. Also there was a huge lump spreading over two quadrants of the left breast, easily observable without palpation. I told her she most likely did have breast cancer and discussed conventional options for care easily available to her in Germany, care that I myself could not render:

- Hyperthermia
- Electro-cancer therapy (Described in depth in my course *Treatment of Cancer with Electro-Acupuncture*
- Surgery
- Chemotherapy (doses would be only 30% of what she would receive in the USA if her treatment were given with hyperthermia)

I was concerned about the blackened nipple and large tumor, and she explained to me that the nipple had blackened and tumor had enlarged only after she began applying the essential oil frankincense directly to the tumor at the advice of an aromatherapist. Why was this so? Frankincense or *Ru Xiang* does have good properties to promote the healing of wounds, but by

what mechanism? Here's how. It invigorates the circulation of blood, yet this is something which may spread cancer cells and create metastases.

Blood moving herbs have been shown to make cancer cells more vulnerable to radiation therapy and to help strip away the fibrinogen coating which masks cancer cells from identification and attack by immune cells. However, with breast cancer one does want the cancer cells to stay put, and moving blood right around a breast tumor poses risks.

I debated this point with another acupuncturist who reported that a friend had cured breast cancer by pouring frankincense directly into an open cancerous breast lesion. "Really?" I said. "Isn't that quite a risk for both the patient and practitioner to take, given the blood moving quality of frankincense?"

Her flippant response and arrogant attitude that it wasn't a problem really gave me pause. I hope you approach cancer patients with more caution.

### More prevalent problems using essential oils:

Please read **APPENDIX A** attached at the end of this course which chronicles the adverse side effects experienced by 34 patients using essential oils from M-L-M companies. Forewarned is forearmed. The table is reprinted from the Atlantic Institute of Aromatherapy's website.

**APPENDIX B** which follows thereafter is a report from the National Institutes of Health and the National Cancer Institute on the uses of essential oils in treating the side effects of cancer and possible adverse reactions to the use of essential oils.

## Further thoughts on sources and purity of essential oils:

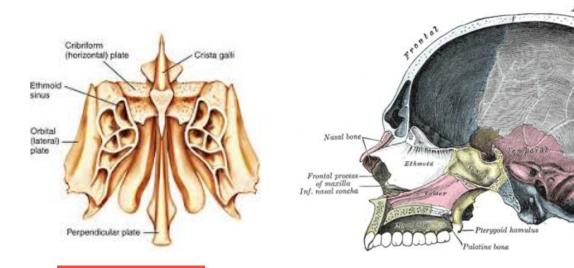
Most essential oils are used in the food and fragrance industries, easily over 95%. These industries contract for mass production of essential oils from plants with modern agricultural techniques and often process them using harsh chemicals, thereby creating essential oils whose quality is lacking for therapeutic purposes.



A field of commercially grown lavender in France

Even if the plants are certified organic, improper processing and/or storage can seriously impair the quality of their oils. The quality of an essential oil is a function of where and how its plant was grown, how and when it was harvested, processed, and stored. Master aromatherapists have cultivated sources for their oils over years and decades, often with individual, rural families far flung across the globe who each specialize in the creation of a few essential oils following traditions and techniques passed down as valuable secrets over generations.

Unlike the M-L-M companies that market essential oils, master aromatherapists seek oils that impart a gentle fragrance that creeps up on you, pervades, perfuses, and lingers rather than those chemically induced oils that pack a strong punch of odor at first but fade in effectiveness. Essential oils work best that can access the patient's mental, emotional, and spiritual levels. Fragrances distilled with delicacy can penetrate through the nose, across the ethmoid bone of the sinus cavity, into the hypothalamic epithelium, directly into the hypothalamus which then transmits biochemical messages to the pituitary, and thence into the soul.



I personally now get essential oils from four sources (with which I have no financial relationship):

- Snow Lotus Aromatherapy Inc at snowlotus.org Peter Holmes company. His books are treasures on the subject.
- Patricia Star, a nationally rgistered aromatherapist at <a href="http://essentialeve.com">http://essentialeve.com</a>
- Tisserand Aromatherapy at <a href="http://www.tisserand.com/">http://www.tisserand.com/</a> developed by aromatherapy pioneer Robert Tisserand who shares a wealth of knowledge at <a href="http://roberttisserand.com/">http://roberttisserand.com/</a>
- BioExcel at <a href="http://bioexcel.com/">http://bioexcel.com/</a> Ann Vermilye's company

#### **Modes of administration**

For thousands of years people have employed essential oils in a variety of ways, but they all boil down to three methods of entry into the body - by ingesting orally, by smelling, or by applying topically. Oral intake presumes the practitioner has a great deal of knowledge about the properties and contraindications of essential oils as well as the underlying health conditions of the patient. With that in mind, we'll not be discussing oral administration of essential oils in this course, except to give some caveats.

There are several other, safer ways to use essential oils:

- added to boiling water for steam inhalation. People can put a few drops of oil into a pot of steaming water, put a towel over their head like a tent over the pot, and breath in.
- diluted in bath water
- diluted at 2-4% with a vegetable carrier oil such as almond, apricot, or coconut and massaged directly into the skin (elbow creases and the arches of the feet are the most permeable)
- dropped onto hot surfaces such as a light bulb (wasteful)
- put a few drops into a diffuser mixed with water. There are several types. Some have a heat source. Some areultrasonic. Others are ionizers.
- put into a nebulizer
- scents of essential oils can be inhaled directly
- turned into a liniment at a 4-8% dilution with a vegetable carrier oil and massaged locally where attention is needed.
- used as perfume

# **APPENDIX A**

**Injury Report 2014** - reprinted from the Atlantic Institute of Aromatherapy's website.

In an effort to continue to offer aromatherapy education centered around safety, <u>we've been collecting data on cases of adverse effects of essential oils</u> for about the past year now. We are now ready to release our first report. This is only representative of 34 cases, but serves as a learning tool help us all create safer practices.

The Report Summary is below on this page. You can also download a PDF of the Data Collection. Download Data Collection

The actual data can be read in a PDF and contains the full report including testimonies. The PDF thumbnail has to be downloaded to a file, and then opened in order to enlarge the print. There are a total of three pages that will need to be put in a larger view for reading. Continue reading horizontally across each page locating the ID numbers on each page for all the information in each report.

We will continue to collect cases and issue a more comprehensive report when we have more data. You can learn more or file a report here.

## **April 2014**

**The intent of this report:** To inform the public of some of the adverse effects that people have reported, so that we can have a greater understanding of the safe use of essential oils.

What this Report Is: This report is a summary of the experiences from individuals who were directly impacted, or had direct observation of the adverse effects upon an individual who used the essential oil/blend. Reports were completed by those individuals. The Summary Report (below) was designed to give the reader a combined view of the submitted reports. After reviewing this table, please click on the link to go to the table of reports themselves as there is additional information provided, such as number of applications and personal testimonies.

What this Report is NOT: This is not a survey of the universe of all people who have used essential oils/blends. It is limited to 34 reports, period.

**How information was gathered:** Information was entered into an anonymous report format, by the individual who experienced the event, or had direct observation of someone who used the oil/blend. All of the individuals were identified as valid persons, by e-mail address, full

14

name/initials. All information was cut and pasted directly from the reports without any editing, into the raw data report, of which this is a summary.

**Reports that were NOT included:** 3 reports were not included: one that had used an essential oil, but reported no adverse effect, one that used several products that had a particular essential oil in it, one that was hearsay and had not witnessed the event.

**Summary Statement:** Because it is a very limited sample of reports, no conclusion, but one can be reliably stated as a result of this effort. Zero injuries, or adverse effects as a result of consultation by a Certified Aromatherapy Professional (200 hours), or Clinically Trained Aromatherapy Professional (400 hours +).

Note: Putting this summary together was very detailed and tedious work, and should you find any errors in it, we welcome your input.

Number of Reports - 3	34	Sex of Reporters - 100% Female
Category of Age	Number per categ	gory Age
Children	1	(age 5)
Adults	25	(age 25-57), Average 42 years old
		(rounded from 41.68)
Elderly (60+)	4	(61-70) Average 64 years old
	Essential Oils Use	d by category
Product Blends by Name		
Slim and Sassy	4 report usage	e (ID#4, 5, 8, 27)
Citrus Bliss Blend	1 report usage	e (ID# 20)
Digest Zen	1 report usage	e (ID# 6)
Balance Blend	2 report usage	e (ID# 7, 8)
On Guard Blend	3 report usage	e (ID# 7, 8, 13)
Aromatouch Blend	3 report usage	e (ID# 7, 8, 9)
Deep Blue Blend	3 report usage	e (ID# 7, 8, 13)
Omega Complex	1 report usage	e (ID# 29)
Clary Calm	1 report usage	e (ID#13)
Past Tense	1 report usage	e (ID#13)
Breath	2 report usage	(ID# 13, 17)
Joy	1 report usage	e (ID# 32)
Purification Blend	1 report usage	e (ID# 10)
Chill Pill Blend	1 report usage	e (ID# 10)
Unidentified Blend	1 report usage	e (ID# 12)
Germ Fighter	1 report usage	e (ID# 23)

	Single Essential Oils				
EO's of Lemon, Peppermint, Lemongrass, Tea Tree, Oregano Roman Chamomile, Clove, Sweet Orange, Red Thyme	21 report usage	(ID# 2, 3, 11, 14, 15, 18, 19, 20, 22, 24, 25, 26, 28, 31, 33, 34, 35, 40)			
	Combination of more than one oil				
(Birch, Frankincense, Lemon Balm) (Peppermint, Tarragon, Fennel, Caraway, Coriander, Anise) (Oregano, Melaleuca, Lavender)	3 report usage	(ID# 16, 21, 31)			

	Brand name of oil reported				
doTerra	19 reported usages	(ID# 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15,			
		17, 20, 21, 22, 25, 27, 29, 31)			
Young Living	5 reported usages	(ID# 2, 10, 19, 23, 32)			
No Comment/Unknown	2 reported usages	(ID# 16, 35)			
Auroma	1 reported usage	(ID# 14)			
NYR	1 reported usage	(ID# 24)			
Mountain Rose	1 reported usage	(ID# 26)			
Won with Nature	1 reported usage	(ID# 28)			
Aura Cacia	1 reported usage	(ID#30)			
Now	1 reported usage	(ID# 33)			
Joy of the Mountains	1 reported usage	(ID# 18)			
Plant Therapy	1 reported usage	(ID# 23)			

Diluted or Undiluted				
Undiluted	19 reported usages	(ID# 2, 3, 4, 6, 10, 12, 13, 17, 19, 20,		
		21, 22, 23, 24, 28, 32, 34, 35)		
Diluted in Water	11 reported usages	(ID# 5, 8, 11, 12, 14, 15, 18, 19, 25,		
		26, 27)		
Diluted (ratio not specified)	3 reported usages	(ID# 30, 31, 33)		
Diluted on Skin	4 reported usages	(ID# 7, 9, 13, 16)		
No Comment	1 reported usage	(ID# 29)		

Route of Administration		
Oral Ingestion	17 reported usages	(ID# 2, 3, 4, 5, 6, 8, 11, 12, 13, 17, 18,
		19, 20, 25, 26, 27, 29)
Topically	15 reported usages	(ID# 7, 9, 10, 12, 13, 15, 16, 20, 21,
		24, 28, 31, 33, 35)
Inhaled	2 reported usages	(ID# 22, 31)
In Ear	1 reported usage	(ID# 34)

Topography of Application		
Mouth	17 reported usages	(ID# 2, 3, 4, 5, 6, 8, 11, 12, 13, 17, 18,
		19, 20, 25, 26, 27, 29)
Lip	I reported usage	(ID# 24)
Back	2 reported usages	(ID# 11, 13)
Shoulder	1 reported usage	(ID# 16)
Chest	1 reported usage	(ID# 32)
Cheek	1 reported usage	(ID# 33)
Whole body in bath	2 reported usages	(ID# 13, 30)
Abdomen	1 reported usage	(ID# 21)
Feet	2 reported	(ID# 14, 28)
Temples	1 reported usage	(ID# 15)
Back of Neck	1 reported usage	(ID# 15)

Oil over 6 months old		
This question was answered but it would be difficult to know unless there was a distillation		
date on the product. Presume most people answered based on how long they had the		
essential oil/blend in their possession.		
Yes	1 report, but comment	(ID# 28)
	suggest unknown	
No	25 reported	(ID# 2, 3, 4, 5, 6, 10, 12, 13, 14, 15,
		16, 17, 18, 19, 20, 21, 22, 23, 24, 25,
		26, 27, 30, 31, 32)
Unknown	7 reported	(ID# 7-11, 29, 33-35)

Description of Adverse Effect/Injury		
These were the combined descriptions of During and Immediately Afterwards		
Migraine/Headache	4 reported	(ID# 2, 13, 31, 35)
Tired/Dizzy	2 reported	(ID# 3, 28)
Thirst	2 reported	(ID# 4, 5)
Irritation of Mouth, Throat,	4 reported	(ID# 4, 5, 8, 23)
Lips, Gums, Tongue		

GI upset (includes nausea,	4 reported	(ID# 6, 29, 35, 21)
vomiting, diarrhea)	Freported	(1511 0, 25, 55, 21)
Sneezing Runny Nose	1 reported	(ID# 13)
Cognitive dysfunction	1 reported	(ID#13)
(delusions)		
Boils and Blisters	3 reported	(ID#12, 13, 32)
Itching	4 reported	(ID# 26, 30, 31, 32)
Hives	1 reported	(ID# 26)
Tingling and Redness	1 reported	(ID # 24)
Rash	4 reported	(ID # 16,18,20,31)
Burning sensation on skin	5 reported	(ID #15,30,31,32,33)
Rapid Heartbeat/Elevated	3 reported	(ID# 13, 27, 28)
Blood Pressure		
Coughing	1 reported	(ID# 17)
Redness and Cracking of Lip	1 reported	(ID# 24)
Tissue	·	
Flatulence	1 reported	(ID# 21)

Effects Sometime Later		
> 3 weeks to 3 months	2 reported	(ID# 17, 18)
> One year, Frequent urination/leakage	1 reported	(ID# 19)
Permanent Scar Tissue	2 reported	(ID# 31, 34)

Sought Medical Attention		
Listed are the types of medical intervention, or medication. It is worthy to note that one		
individual may have sought medical treatment/opinions from more than one provider.		
Naturopath (N.D.)	3 reports	(ID# 4, 13, 19)
Pediatrician	1 reports	(ID# 10)
Took Medication	2 reports	(ID#8, 26)
Urgent Care Center/ER	2 reports	(ID# 13, 34)
General Practitioner	6 reports	(ID#13, 17, 18, 23, 28, 34)
Chinese Doctor	1 report	(ID# 13)
Japanese Fungus Expert	1 report	(ID# 13)
Psychiatrist	1 report	(ID#13)

Upon Who's Advice/aka What Type of Essential Oil Session Did You Receive		
Most reports did not identify an individual, however this is what could be identified from the		
information provided in the report.		
Sales Representative	5 reports	(ID# 2, 3, 12, 14, 32)
Aromatouch (2 of these	3 reports	(ID# 7, 8, 9)
were Nurses)		

In ear canal administered by	1 report	(ID# 34)
Nurse		
You Tube	1 person	(ID# 28)

ATLANTIC INSTITUTE OF AROMATHERAPY, 16018 SADDLESTRING DRIVE, TAMPA, FLORIDA 33618, US813-265-2222INFO@ATLANTICINSTITUTE.COM

# APPENDIX B

http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0032518/

National Cancer Institute - PDQ Cancer Information Summaries.

## Aromatherapy and Essential Oils (PDQ®) Patient Version

Last Update: October 16, 2012.

#### Go to:

### **Overview**

- <u>Aromatherapy</u> is the use of <u>essential oils</u> from plants (flowers, <u>herbs</u>, or trees) as <u>therapy</u> to improve physical, emotional, and spiritual well-being (see Question 1).
- Patients with <u>cancer</u> use aromatherapy mainly to improve their <u>quality of life</u>, such as reducing <u>stress</u> and <u>anxiety</u> (see <u>Question 1</u>).
- Essential oils like <u>Roman chamomile</u>, <u>geranium</u>, <u>lavender</u>, or <u>cedarwood</u> are the basic materials of aromatherapy (see <u>Question 1</u>).
- Interest in aromatherapy grew in the late 20th century as a form of <u>complementary</u> <u>medicine</u> (see <u>Question 2</u>).
- Aromatherapy may work by sending chemical messages to the part of the brain that affects moods and emotions (see <u>Question 3</u>).
- Essential oils are most often used by <u>inhaling</u> them or by applying them in <u>diluted</u> form to the <u>skin</u> (see <u>Question 4</u>).
- <u>Laboratory studies</u> and <u>animal studies</u> have shown that certain essential oils have <u>antibacterial</u>, <u>antiviral</u>, <u>antifungal</u>, calming, or energizing effects (see <u>Question 5</u>).
- Aromatherapy research with cancer patients has mainly studied its effect on other health
   <u>conditions</u> and quality-of-life issues such as cancer-related symptoms, stress, and anxiety.
   There are no studies discussing aromatherapy as a treatment for cancer (see <u>Question 6</u>).
- Safety testing on essential oils has found very few bad <u>side effects</u>. <u>Lavender</u> and <u>tea tree</u> oils have been found to have some <u>hormone</u>-like effects (see <u>Question 7</u>).
- Aromatherapy products do not need approval by the <u>U.S. Food and Drug Administration</u> because no specific medical claims are made (see Question 8).

## **Questions and Answers About Aromatherapy**

### 1. What is aromatherapy?

<u>Aromatherapy</u> is the use of <u>essential oils</u> from plants to support and balance the mind, body, and spirit. It is used by patients with <u>cancer</u> mainly as a form of <u>supportive care</u> that may improve <u>quality of life</u> and reduce <u>stress</u> and <u>anxiety</u>. Aromatherapy may be combined with other <u>complementary</u> treatments like <u>massage therapy</u> and <u>acupuncture</u>, as well as with <u>standard treatments</u>.

Essential oils (also known as volatile oils) are the basic materials of aromatherapy. They are made from <u>fragrant</u> essences found in many plants. These essences are made in special plant <u>cells</u>, often under the surface of leaves, bark, or peel, using energy from the sun and elements from the air, soil, and water. If the plant is crushed, the essence and its unique fragrance are released.

When essences are extracted from plants in natural ways, they become essential oils. They may be distilled with steam and/or water, or mechanically pressed. Oils that are made with chemical processes are not considered true essential oils.

There are many essential oils used in aromatherapy, including those from Roman chamomile, geranium, lavender, tea tree, lemon, cedarwood, and bergamot. Each type of essential oil has a different chemical composition that affects how it smells, how it is absorbed, and how it is used by the body. Even the oils from varieties of plants within the same species may have chemical compositions different from each other. The same applies to plants that are grown or harvested in different ways or locations.

Essential oils are very concentrated. For example, it takes about 220 lbs of lavender flowers to make about 1 pound of essential oil. Essential oils are very volatile, evaporating quickly when they are exposed to open air.

# 2. What is the history of the discovery and use of aromatherapy as a complementary and alternative treatment for cancer?

Fragrant plants have been used in healing practices for thousands of years across many cultures, including ancient China, India, and Egypt. Ways to extract essential oils from plants were first discovered during the Middle Ages.

The history of modern aromatherapy began in the early 20th century, when French chemist Rene Gattefosse coined the term "aromatherapy" and studied the effects of

essential oils on many kinds of diseases. In the 1980s and 1990s, aromatherapy was rediscovered in Western countries as interest in <u>complementary and alternative</u> <u>medicine</u> (CAM) began to grow.

# 3. What is the theory behind the claim that aromatherapy is useful in treating cancer?

Aromatherapy is rarely suggested as a treatment for cancer, but rather as a form of supportive care to manage <u>symptoms</u> of cancer or <u>side effects</u> of cancer treatment. There are different theories about how aromatherapy and essential oils work. A leading theory is that smell <u>receptors</u> in the nose may respond to the smells of essential oils by sending chemical messages along <u>nerve</u> pathways to the brain's <u>limbic system</u>, which affects moods and emotions. <u>Imaging</u> studies in humans help show the effects of smells on the limbic system and its emotional pathways.

### 4. How is aromatherapy administered?

Aromatherapy is used in various ways. Examples include:

- Indirect <u>inhalation</u> (patient breathes in essential oils by using a room diffuser or placing drops nearby).
- Direct inhalation (patient breathes in essential oils by using an individual <u>inhaler</u> with drops floated on top of hot water) to treat a <u>sinus</u> headache.
- Aromatherapy massage (massaging essential oils, <u>diluted</u> in a <u>carrier oil</u>, into the skin).
- Applying essential oils to the <u>skin</u> by combining them with bath salts, lotions, or dressings.

Aromatherapy is rarely taken by mouth.

There are some essential oils commonly chosen to treat specific <u>conditions</u>. However, the types of oils used and the ways they are combined may vary, depending on the experience and training of the <u>aromatherapist</u>. This lack of standard methods has led to some conflicting research on the effects of aromatherapy.

# 5. Have any preclinical (laboratory or animal) studies been conducted using aromatherapy?

Many studies of essential oils have found that they have <u>antibacterial</u> effects when applied to the <u>skin</u>. Some essential oils have <u>antiviral</u> activity against the <u>herpes simplex virus</u>. Others have <u>antifungal</u> activity against certain <u>vaginal</u> and <u>oropharyngeal fungal</u>

<u>infections</u>. In addition, studies in rats have shown that different essential oils can be calming or energizing. When rats were exposed to certain fragrances under <u>stressful</u> conditions, their behavior and <u>immune responses</u> were improved.

One study showed that after essential oils were inhaled, markers of the fragrance <u>compounds</u> were found in the bloodstream, suggesting that aromatherapy affects the body directly like a <u>drug</u>, in addition to indirectly through the <u>central nervous system</u>.

# 6. Have any <u>clinical trials</u> (research studies with people) of aromatherapy been conducted?

<u>Clinical trials</u> of aromatherapy have mainly studied its use in the treatment of stress, anxiety, and other health-related conditions in seriously ill patients. Several <u>clinical trials</u> of aromatherapy in patients with cancer have been published with mixed results.

A few early studies have shown that aromatherapy may improve <u>quality of life</u> in patients with cancer. Some patients receiving aromatherapy have reported improvement in symptoms such as <u>nausea</u> or pain, and have lower <u>blood pressure</u>, pulse, and respiratory rates. Studies of aromatherapy massage have had mixed results, with some studies reporting improvement in mood, anxiety, pain, and <u>constipation</u> and other studies reporting no effect.

A study of inhaled bergamot in children and adolescents receiving <u>stem cell transplants</u> reported an increase in anxiety and nausea and no effect on pain. Parents receiving the aromatherapy and parents receiving the <u>placebo</u> both showed less anxiety after their children's transplants. In a study of adult patients receiving stem cell transplants, tasting or sniffing sliced oranges was more effective at reducing nausea, <u>retching</u>, and <u>coughing</u> than <u>inhaling</u> an orange essential <u>oil</u>.

A small study of tea tree <u>oil</u> as a <u>topical</u> treatment to clear <u>antibiotic</u>-resistant MRSA <u>bacteria</u> from the <u>skin</u> of hospital patients found that it was as effective as the standard treatment. Antibacterial essential oils have been studied to lessen <u>odor</u> in <u>necrotic</u> <u>ulcers</u>.

No studies in <u>scientific</u> or medical literature discuss aromatherapy as a treatment for cancer.

### 7. Have any side effects or risks been reported from aromatherapy?

Safety testing on essential oils shows very few bad side effects or risks when they are used as directed. Some essential oils have been approved as ingredients in food and are classified as GRAS (generally recognized as safe) by the <u>U.S. Food and Drug</u>
<u>Administration</u>, within specific limits. Swallowing large amounts of essential oils is not recommended.

<u>Allergic reactions</u> and <u>skin</u> irritation may occur in aromatherapists or in patients, especially when essential oils are in contact with the skin for long <u>periods</u> of time. Sun <u>sensitivity</u> may develop when citrus or other oils are applied to the skin before sun exposure.

Lavender and tea tree oils have been found to have some <a href="https://hormone-like-effects">hormone-like effects</a>. They have effects similar to <a href="estrogen">estrogen</a> (female sex hormone) and also block or decrease the effect of <a href="estrogen">androgens</a> (male sex <a href="hormones">hormones</a>). Applying lavender and tea tree oils to the <a href="eskin">skin</a> over a long period of time has been linked in one study to <a href="hormones">breast</a> enlargement in boys who have not yet reached <a href="puberty">puberty</a>. It is recommended that patients with <a href="tumors">tumors</a> that need <a href="estrogen">estrogen</a> to grow avoid using lavender and tea tree oils.

# 8. Is aromatherapy approved by the U.S. Food and Drug Administration (FDA) for use as a cancer treatment in the United States?

Aromatherapy products do not need approval by the Food and Drug Administration because no specific claims are made for the treatment of cancer or other diseases.

Aromatherapy is not regulated by state law, and there is no licensing required to practice aromatherapy in the United States. Professionals often combine aromatherapy training with another field in which they are licensed, for example, massage therapy, registered nursing, acupuncture, or <a href="mailto:naturopathy">naturopathy</a>. Some aromatherapy courses for <a href="mailto:healthcare providers">healthcare providers</a> offer medical credit hours and include conducting research and measuring results.

The National Association for Holistic Aromatherapy (<a href="www.naha.org">www.naha.org</a>) and the Alliance of International Aromatherapists (<a href="www.alliance-aromatherapists.org">www.alliance-aromatherapists.org</a>) are two organizations that have national educational standards for aromatherapists. The National Association for Holistic Aromatherapy (NAHA) plans to have a standard aromatherapy certification in the United States. There are many schools that offer certificate programs approved by NAHA. A list of these schools can be found at

http://www.naha.org/schools level one two.htm. National exams in aromatherapy are held twice a year.

The Canadian Federation of Aromatherapists (<a href="www.cfacanada.com">www.cfacanada.com</a>) certifies aromatherapists in Canada. See the International Federation of Aromatherapists Web site (<a href="www.ifaroma.org/">www.ifaroma.org/</a>) for a list of international aromatherapy programs.

#### Go to:

### **Current Clinical Trials**

Check NCI's list of cancer <u>clinical trials</u> for cancer CAM clinical trials on <u>aromatherapy and</u> <u>essential oils</u> that are actively enrolling patients.

General information about <u>clinical trials</u> is available from the <u>NCI Web site</u>.

### Go to:

### Changes to This Summary (10/16/2012)

The <u>PDQ cancer</u> information summaries are reviewed regularly and updated as new information becomes available. This section describes the latest changes made to this summary as of the date above.

Changes were made to this summary to match those made to the health professional version.

#### Go to:

## **About This PDQ Summary**

#### **About PDQ**

Physician Data Query (PDQ) is the National Cancer Institute's (NCI's) comprehensive cancer information database. The PDQ database contains summaries of the latest published information on cancer prevention, detection, genetics, treatment, supportive care, and complementary and alternative medicine. Most summaries come in two versions. The health professional versions have detailed information written in technical language. The patient versions are written in easy-to-understand, nontechnical language. Both versions have cancer information that is accurate and up to date and most versions are also available in <a href="Spanish">Spanish</a>.

PDQ is a service of the NCI. The NCI is part of the National Institutes of Health (NIH). NIH is the federal government's center of biomedical research. The PDQ summaries are based on an

independent review of the medical literature. They are not policy statements of the NCI or the NIH.

#### **Purpose of This Summary**

This PDQ cancer information summary has current information about the use of aromatherapy and essential oils in the treatment of people with cancer. It is meant to inform and help patients, families, and caregivers. It does not give formal guidelines or recommendations for making decisions about health care.

## **Reviewers and Updates**

Editorial Boards write the PDQ cancer information summaries and keep them up to date. These Boards are made up of experts in cancer treatment and other specialties related to cancer. The summaries are reviewed regularly and changes are made when there is new information. The date on each summary ("Date Last Modified") is the date of the most recent change.

The information in this patient summary was taken from the health professional version, which is reviewed regularly and updated as needed, by the <a href="PDQ Cancer Complementary and">PDQ Cancer Complementary and</a> Alternative Medicine Editorial Board.

### **Clinical Trial Information**

A <u>clinical trial</u> is a study to answer a scientific question, such as whether one treatment is better than another. Trials are based on past studies and what has been learned in the laboratory. Each trial answers certain scientific questions in order to find new and better ways to help cancer patients. During treatment <u>clinical trials</u>, information is collected about the effects of a new treatment and how well it works. If a clinical trial shows that a new treatment is better than one currently being used, the new treatment may become "standard." Patients may want to think about taking part in a clinical trial. Some clinical trials are open only to patients who have not started treatment.

Clinical trials are listed in PDQ and can be found online at NCI's Web site. Many cancer doctors who take part in clinical trials are also listed in PDQ. For more information, call the Cancer Information Service 1-800-4-CANCER (1-800-422-6237).

### **Permission to Use This Summary**

PDQ is a registered trademark. The content of PDQ documents can be used freely as text. It cannot be identified as an NCI PDQ cancer information summary unless the whole summary is shown and it is updated regularly. However, a user would be allowed to write a sentence such as "NCI's PDQ cancer information summary about breast cancer prevention states the risks in the following way: [include excerpt from the summary]."

## The best way to cite this PDQ summary is:

National Cancer Institute: PDQ® Aromatherapy and Essential Oils. Bethesda, MD: National Cancer Institute. Date last modified <MM/DD/YYYY>. Available at: <a href="http://www.cancer.gov/cancertopics/pdq/cam/aromatherapy/patient">http://www.cancer.gov/cancertopics/pdq/cam/aromatherapy/patient</a>. Accessed <MM/DD/YYYY>.

Images in this summary are used with permission of the author(s), artist, and/or publisher for use in the PDQ summaries only. If you want to use an image from a PDQ summary and you are not using the whole summary, you must get permission from the owner. It cannot be given by the National Cancer Institute. Information about using the images in this summary, along with many other images related to cancer can be found in <u>Visuals Online</u>. Visuals Online is a collection of more than 2,000 scientific images