Workshop Outline: Aromatherapy Essential Oils and Hormone Activity

- I. Introduction
- A. Overview of hormone-blocking therapy for breast cancer
- B. Importance of understanding hormone activity and its impact on health
- C. Introduction to aromatherapy essential oils and their potential effects on hormones
- II. Understanding Hormone-Blocking Therapy for Breast Cancer
- A. Explanation of hormone receptor positive breast cancer
- B. Role of hormone-blocking therapy in treating breast cancer
- C. Medications used in hormone-blocking therapy (e.g., Tamoxifen, aromatase inhibitors)
- D. Combination treatments for pre-menopausal individuals (e.g., ovarian suppression)
- E. Different durations of hormone-blocking therapy based on cancer stage

III. Mechanism of Action of Hormone-Blocking Therapy

- A. How hormone-blocking therapy deprives cancer cells of hormones
- B. Effectiveness in reducing the risk of cancer spreading or recurring
- C. Differentiating hormone-blocking therapy from hormone replacement therapy (HRT)
- IV. Side Effects of Hormone-Blocking Therapy
- A. Common side effects of hormone-blocking therapy
- 1. Menopausal symptoms (e.g., hot flushes, night sweats)
- 2. Emotional and psychological effects (e.g., anxiety, mood swings)
- 3. Sleep disturbances and fatigue
- B. Specific side effects of aromatase inhibitors (e.g., joint stiffness, bone weakening)
- 1. Importance of bone health and monitoring bone density
- 2. Available treatments and interventions for side effects
- V. Essential Oils and Hormone Activity
- A. Introduction to essential oils and their chemical composition
- B. Potential endocrine-disrupting activity of essential oils
- C. Research findings on specific essential oils and hormone activity
- 1. Study on lavender and tea tree oil as potential endocrine disruptors
- 2. Analysis of specific chemicals in essential oils and their effects
- D. Discussion on the safety of essential oils for individuals with breast cancer
- 1. Expert perspective on lavender oil as safe for estrogen-dependent cancer
- 2. Considerations for using essential oils and consulting healthcare professionals

VI. Safe Essential Oils for Breast Cancer and Hormone Balance

- A. Overview of essential oils considered safe for individuals with breast cancer
- B. Essential oils that support hormone balance and overall well-being
- C. Precautions and guidelines for using essential oils safely
- D. Personalized recommendations based on individual circumstances and health status

VII. Q&A Session and Discussion

- A. Open floor for questions, concerns, and sharing experiences
- B. Addressing participant queries about essential oils and hormone activity
- C. Providing additional resources and references for further exploration

VIII. Conclusion and Takeaways

- A. Summary of key points discussed during the workshop
- B. Emphasizing the importance of informed decision-making and consulting professionals
- C. Encouraging participants to explore safe and beneficial uses of essential oils
- D. Closing remarks and gratitude

Hormone-blocking therapy

Hormone-blocking therapies are drugs used to treat hormone receptor positive breast cancer.

Around two-thirds of breast cancers are hormone receptor positive, which means that they need female hormones (oestrogen and/or progesterone) to grow and reproduce. Most people with hormone receptor positive breast cancer will be offered hormone-blocking therapy (sometimes called endocrine therapy).

Hormone-blocking therapy is given as an oral medication. For people with early breast cancer, it is usually recommended that it is taken daily for at least five years after the completion of your other breast cancer treatments (surgery, chemotherapy and/or radiotherapy). Research shows that taking hormone-blocking therapy for up to 10 years may further reduce the risk of breast cancer returning. Some people are now recommended 10 years of hormone-blocking treatment.

For people with hormone receptor positive metastatic breast cancer, hormone-blocking therapy is used to help shrink or slow the growth of their cancer. It is usually taken for as long as it works. When a particular hormone-blocking therapy stops being effective, your treating doctor may usually recommend a different one.

Tamoxifen is one of the best-known hormone-blocking therapy medications. It can be used to treat pre and post-menopausal people. Aromatase inhibitors such as anastrozole, letrozole and exemestane are also hormone-blocking therapies, however they are only suitable for people who have completed menopause.

For people who are pre-menopausal, ovarian suppression treatment may be given in combination with oral hormone-blocking therapy. This may be necessary as oestrogen is mainly produced in the ovaries prior to menopause. Ovarian suppression can be in the form of monthly injections or surgery.

Note: Hormone-blocking therapy used to treat breast cancer is not the same as hormone replacement therapy (HRT) used to manage the symptoms of menopause.

How does hormone-blocking therapy work?

Hormone-blocking therapy works by depriving breast cancer cells of the hormones that they use to grow. It is used to kill any breast cancer cells that might be present in the breast or elsewhere in the body. It has been found to be very effective in reducing the risk of the cancer spreading to other parts of the body, or of a new breast cancer developing in the same or other breast.

Side effects

Hormone-blocking therapy can have side effects, including:

- Menopausal symptoms such as hot flushes, night sweats, heart palpitations, weight gain, mood swings and reduced libido
- Anxiety
- Sleep disturbance
- Fatigue.

Aromatase inhibitors can cause joint stiffness and pain as well as thinning and weakening of the bones. This can result in bone fractures and osteoporosis. Your doctor may recommend that you have a bone mineral density scan, called a DXA or DEXA scan, before starting your treatment. You may also have your calcium and Vitamin D levels checked. Sometimes you

may be prescribed a bone strengthening medication to protect your bones from fractures. More information is available on the <u>Bone health page</u>. If you are finding side effects of hormone-blocking therapy difficult to manage, talk to your medical oncologist. They may be able to give you some advice to help you manage side effects, or switch you to one of the other hormone-blocking therapy drugs. website.

Tisserand concludes that "Lavender oil does not mimic estrogen nor does it enhance the body's own estrogens. It is therefore not a 'hormone disruptor', cannot cause breast growth in young boys (or girls of any age), and is safe to use by anyone at risk for estrogen-dependent cancer."

Lavender, tea tree oil as endocrine disruptors

Essential oils contain hundreds of chemicals. For the new study, however, Ramsey and team picked out and analyzed:

- eucalyptol
- 4-terpineol
- dipentene/limonene
- alpha-terpineol
- linalyl acetate
- linalool
- alpha-terpinene
- gamma-terpinene

The first four components are common to both tea tree oil and lavender oil. The research revealed that all of the chemicals tested had an endocrine-disrupting activity to a certain extent.

While some of the compounds had little to no estrogenic or testosteroneinhibiting activity, the changes that were caused by the essential oils appeared to coincide with those present in gynecomastia.

"Lavender oil and tea tree oil," explains Ramsey, "pose potential environmental health concerns and should be investigated further," especially since many of the chemicals they tested can be found in 65 other essential oils that are currently marketed as safe.

Title: Aromatherapy Essential Oils and Hormone Activity: Understanding Hormone-Blocking Therapy and Safe Essential Oil Use for Breast Cancer Introduction:

Breast cancer is a complex disease, with hormone receptor positive breast cancer accounting for about two-thirds of cases. Hormone-blocking therapy, also known as endocrine therapy, plays a vital role in treating hormone receptor positive breast cancer. In this workshop, we will explore the connection between aromatherapy essential oils and hormone activity, with a specific focus on hormone blockers for breast cancer. Additionally, we will discuss essential oils that are safe for individuals with breast cancer and their potential impact on hormone balance.

Understanding Hormone-Blocking Therapy for Breast Cancer:

Hormone-blocking therapy is a targeted treatment approach that deprives hormone receptor positive breast cancer cells of the hormones (estrogen and/or progesterone) they require for growth and reproduction. It is administered orally and typically recommended for at least five years after other breast cancer treatments, such as surgery, chemotherapy, and radiotherapy. Recent research suggests that extending hormone-blocking therapy up to 10 years further reduces the risk of cancer recurrence. For individuals with metastatic breast cancer, hormone-blocking therapy helps shrink or slow the growth of cancer cells.

Common medications used in hormone-blocking therapy include Tamoxifen, which is suitable for both pre and post-menopausal individuals, and aromatase inhibitors such as anastrozole, letrozole, and exemestane, which are specifically recommended for post-menopausal individuals. For premenopausal individuals, ovarian suppression treatment may be combined with oral hormone-blocking therapy to reduce estrogen production.

How Does Hormone-Blocking Therapy Work?

Hormone-blocking therapy effectively inhibits breast cancer cell growth by disrupting the supply of hormones they rely on. It reduces the risk of cancer spreading to other parts of the body and lowers the chances of developing new breast cancers. By understanding the mechanism of hormone-blocking therapy, individuals can make informed decisions about their treatment options and potential side effects.

Side Effects of Hormone-Blocking Therapy:

Hormone-blocking therapy can lead to various side effects, which may include menopausal symptoms like hot flushes, night sweats, heart palpitations, weight gain, mood swings, and reduced libido. Other side effects may include anxiety, sleep disturbances, and fatigue. Aromatase inhibitors, in particular, can cause joint stiffness, pain, bone thinning, and weakening, leading to an increased risk of fractures and osteoporosis.

Regular monitoring of bone mineral density, calcium, and Vitamin D levels is recommended, along with possible interventions to protect bone health. Essential Oils and Hormone Activity:

Essential oils contain hundreds of chemicals, and some studies have explored their potential endocrine-disrupting activity. A study investigating lavender and tea tree oil found that certain components present in these oils had endocrine-disrupting effects to varying degrees. However, it is important to note that the study did not conclusively establish a direct link between essential oils and breast growth in young boys or girls, nor did it classify lavender oil as a hormone disruptor.

Renowned aromatherapy expert Robert Tisserand concludes that lavender oil does not mimic estrogen or enhance the body's own estrogens, making it safe for use by anyone at risk for estrogen-dependent cancer. While further research is needed to explore the potential environmental health concerns associated with essential oils, caution should be exercised when using them, especially if you have specific health conditions or concerns.

Safe Essential Oils for Breast Cancer and Hormone Balance:

When considering essential oil use for individuals with breast cancer, it is crucial to prioritize safety and consult with healthcare professionals. While some essential oils may be generally considered safe, such as lavender, it is essential to take individual circumstances into account. Personalized

Clary sage is often cited as an essential oil with potential estrogen-blocking properties. It contains natural compounds, such as sclareol, which have been suggested to have an effect on estrogen receptors in the body. However, it is important to note that the research on clary sage's estrogen-blocking activity is limited and inconclusive.

While clary sage is often mentioned in discussions about estrogen-blocking essential oils, it is not the only oil believed to possess such properties. Some other essential oils that have been suggested to have potential estrogen-blocking effects include:

- Thyme: Thyme essential oil contains thymol, a compound that has been shown to have anti-estrogenic effects in some studies. It is believed to interfere with estrogen receptors and exhibit estrogen-blocking activity.
- Peppermint: Peppermint essential oil contains menthol, which has been found to exhibit anti-estrogenic effects in certain studies. However, more research is needed to fully understand its mechanisms of action and its potential impact on estrogen receptors.

- Lemon balm: Lemon balm essential oil, derived from the Melissa officinalis plant, is believed to possess anti-estrogenic properties. Some studies suggest that it may interact with estrogen receptors and modulate estrogenic activity in the body.
- **Frankincense**: Frankincense essential oil has been associated with potential anti-estrogenic effects. It contains boswellic acids, which have been studied for their inhibitory effects on aromatase, an enzyme involved in estrogen synthesis.
- Fennel: Fennel essential oil is believed to have estrogenmodulating effects. It contains anethole, a compound that has shown estrogenic and anti-estrogenic properties in various studies.
- Myrrh: Myrrh essential oil is known for its antiinflammatory and antioxidant properties. Some studies suggest that it may influence estrogen receptors and exhibit estrogen-modulating effects.

It is important to emphasize that the research on the estrogen-blocking effects of essential oils is still limited, and the mechanisms of action are not fully understood. The use of essential oils as hormone blockers should be approached with caution, and it is recommended to consult with healthcare professionals before using them, particularly for individuals with hormone-related conditions such as breast cancer.

When it comes to essential oils, it is important to understand that their effects on health, including hormone activity, are not instant or drastic with a single use. Essential oils work through a cumulative and long-term approach, and consistent use over time is often necessary to observe noticeable effects on health and well-being.

Using an essential oil once or sporadically is unlikely to have significant or lasting impacts on hormone balance or any other aspect of health. Essential oils work through the synergy of their natural chemical components, which interact with the body in subtle ways. These interactions occur gradually and require regular and sustained use to potentially influence physiological processes.

Long-term use of essential oils allows the body to adapt to their properties and may yield more noticeable effects. For example, if an individual chooses to use clary sage or any other essential oil for its potential estrogen-blocking properties, it would typically be incorporated into their wellness routine over an extended period. Consistent and regular use may support a more

balanced hormone environment, but it is important to note that individual responses can vary.

Furthermore, the effects of essential oils on health are multifaceted and can vary depending on factors such as the specific oil used, individual physiology, dosage, and the presence of underlying health conditions. Essential oils should always be used in moderation and with proper knowledge of their potential interactions and contraindications. It is worth mentioning that essential oils should not be viewed as standalone treatments or substitutes for medical advice. They can be considered as complementary tools to support overall well-being when used appropriately and in conjunction with a healthy lifestyle, including proper nutrition, regular exercise, and medical care.

In summary, the accumulative effects of essential oils on health, including hormone balance, are realized through consistent and long-term use. Using an essential oil once or infrequently is unlikely to result in significant health benefits or disruptions. It is essential to approach essential oil use with a balanced perspective, understanding that they are just one component of a holistic approach to wellness.

When it comes to essential oils and estrogenic activity, there is ongoing debate and limited scientific research regarding their specific effects. However, it is generally recommended to exercise caution with certain essential oils that are believed to have potential estrogenic properties. These oils may mimic or interact with estrogen receptors in the body, potentially influencing hormone balance. It is important to note that individual responses to essential oils can vary, and what may affect one person may not have the same impact on another. If you have concerns about estrogenic activity or specific health conditions, it is advisable to consult with a healthcare professional before using essential oils. While further research is needed to fully understand the estrogenic effects of essential oils, some oils that are often suggested to be used with caution or avoided include:

- Clary Sage: Clary sage is often mentioned for its potential estrogenic activity. While the research on its effects is limited, it is advisable to exercise caution, especially for individuals with hormone-sensitive conditions.
- Fennel: Fennel essential oil is believed to have estrogenic properties and may interact with hormone receptors. It is often recommended to avoid fennel oil or use it with caution, particularly

during pregnancy or for individuals with estrogen-related health concerns.

- Anise: Anise essential oil is known for its distinctive licorice-like aroma and is thought to possess estrogenic activity. Due to its potential influence on hormones, it is advised to use anise oil with caution.
- **Licorice:** Licorice essential oil is derived from the root of the licorice plant and is believed to have estrogenic effects. It is often recommended to avoid using licorice oil, especially for prolonged periods or in high concentrations.

It is important to note that this list is not exhaustive, and individual sensitivities and reactions can vary. Moreover, essential oils are highly concentrated substances, and proper dilution and usage guidelines should always be followed.

To ensure safe and appropriate use of essential oils, consider consulting with a qualified aromatherapist, herbalist, or healthcare professional who can provide personalized advice based on your specific needs and health considerations.

Workshop Outline: Aromatherapy Essential Oils and Hormone Activity

- I. Introduction
- A. Overview of hormone-blocking therapy for breast cancer
- B. Importance of understanding hormone activity and its impact on health
- C. Introduction to aromatherapy essential oils and their potential effects on hormones
- II. Understanding Hormone-Blocking Therapy for Breast Cancer
- A. Explanation of hormone receptor positive breast cancer
- B. Role of hormone-blocking therapy in treating breast cancer
- C. Medications used in hormone-blocking therapy (e.g., Tamoxifen, aromatase inhibitors)
- D. Combination treatments for pre-menopausal individuals (e.g., ovarian suppression)
- E. Different durations of hormone-blocking therapy based on cancer stage

III. Mechanism of Action of Hormone-Blocking Therapy

- A. How hormone-blocking therapy deprives cancer cells of hormones
- B. Effectiveness in reducing the risk of cancer spreading or recurring
- C. Differentiating hormone-blocking therapy from hormone replacement therapy (HRT)
- IV. Side Effects of Hormone-Blocking Therapy
- A. Common side effects of hormone-blocking therapy
- 1. Menopausal symptoms (e.g., hot flushes, night sweats)
- 2. Emotional and psychological effects (e.g., anxiety, mood swings)
- 3. Sleep disturbances and fatigue
- B. Specific side effects of aromatase inhibitors (e.g., joint stiffness, bone weakening)
- 1. Importance of bone health and monitoring bone density
- 2. Available treatments and interventions for side effects
- V. Essential Oils and Hormone Activity
- A. Introduction to essential oils and their chemical composition
- B. Potential endocrine-disrupting activity of essential oils
- C. Research findings on specific essential oils and hormone activity
- 1. Study on lavender and tea tree oil as potential endocrine disruptors
- 2. Analysis of specific chemicals in essential oils and their effects
- D. Discussion on the safety of essential oils for individuals with breast cancer
- 1. Expert perspective on lavender oil as safe for estrogen-dependent cancer
- 2. Considerations for using essential oils and consulting healthcare professionals

VI. Safe Essential Oils for Breast Cancer and Hormone Balance

- A. Overview of essential oils considered safe for individuals with breast cancer
- B. Essential oils that support hormone balance and overall well-being
- C. Precautions and guidelines for using essential oils safely
- D. Personalized recommendations based on individual circumstances and health status

VII. Q&A Session and Discussion

- A. Open floor for questions, concerns, and sharing experiences
- B. Addressing participant queries about essential oils and hormone activity
- C. Providing additional resources and references for further exploration

VIII. Conclusion and Takeaways

- A. Summary of key points discussed during the workshop
- B. Emphasizing the importance of informed decision-making and consulting professionals
- C. Encouraging participants to explore safe and beneficial uses of essential oils
- D. Closing remarks and gratitude

Hormone-blocking therapy

Hormone-blocking therapies are drugs used to treat hormone receptor positive breast cancer.

Around two-thirds of breast cancers are hormone receptor positive, which means that they need female hormones (oestrogen and/or progesterone) to grow and reproduce. Most people with hormone receptor positive breast cancer will be offered hormone-blocking therapy (sometimes called endocrine therapy).

Hormone-blocking therapy is given as an oral medication. For people with early breast cancer, it is usually recommended that it is taken daily for at least five years after the completion of your other breast cancer treatments (surgery, chemotherapy and/or radiotherapy). Research shows that taking hormone-blocking therapy for up to 10 years may further reduce the risk of breast cancer returning. Some people are now recommended 10 years of hormone-blocking treatment.

For people with hormone receptor positive metastatic breast cancer, hormone-blocking therapy is used to help shrink or slow the growth of their cancer. It is usually taken for as long as it works. When a particular hormone-blocking therapy stops being effective, your treating doctor may usually recommend a different one.

Tamoxifen is one of the best-known hormone-blocking therapy medications. It can be used to treat pre and post-menopausal people. Aromatase inhibitors such as anastrozole, letrozole and exemestane are also hormone-blocking therapies, however they are only suitable for people who have completed menopause.

For people who are pre-menopausal, ovarian suppression treatment may be given in combination with oral hormone-blocking therapy. This may be necessary as oestrogen is mainly produced in the ovaries prior to menopause. Ovarian suppression can be in the form of monthly injections or surgery.

Note: Hormone-blocking therapy used to treat breast cancer is not the same as hormone replacement therapy (HRT) used to manage the symptoms of menopause.

How does hormone-blocking therapy work?

Hormone-blocking therapy works by depriving breast cancer cells of the hormones that they use to grow. It is used to kill any breast cancer cells that might be present in the breast or elsewhere in the body. It has been found to be very effective in reducing the risk of the cancer spreading to other parts of the body, or of a new breast cancer developing in the same or other breast.

Side effects

Hormone-blocking therapy can have side effects, including:

- Menopausal symptoms such as hot flushes, night sweats, heart palpitations, weight gain, mood swings and reduced libido
- Anxiety
- Sleep disturbance
- Fatigue.

Aromatase inhibitors can cause joint stiffness and pain as well as thinning and weakening of the bones. This can result in bone fractures and osteoporosis. Your doctor may recommend that you have a bone mineral density scan, called a DXA or DEXA scan, before starting your treatment. You may also have your calcium and Vitamin D levels checked. Sometimes you

may be prescribed a bone strengthening medication to protect your bones from fractures. More information is available on the <u>Bone health page</u>. If you are finding side effects of hormone-blocking therapy difficult to manage, talk to your medical oncologist. They may be able to give you some advice to help you manage side effects, or switch you to one of the other hormone-blocking therapy drugs. website.

Tisserand concludes that "Lavender oil does not mimic estrogen nor does it enhance the body's own estrogens. It is therefore not a 'hormone disruptor', cannot cause breast growth in young boys (or girls of any age), and is safe to use by anyone at risk for estrogen-dependent cancer."

Lavender, tea tree oil as endocrine disruptors

Essential oils contain hundreds of chemicals. For the new study, however, Ramsey and team picked out and analyzed:

- eucalyptol
- 4-terpineol
- dipentene/limonene
- alpha-terpineol
- linalyl acetate
- linalool
- alpha-terpinene
- gamma-terpinene

The first four components are common to both tea tree oil and lavender oil. The research revealed that all of the chemicals tested had an endocrine-disrupting activity to a certain extent.

While some of the compounds had little to no estrogenic or testosteroneinhibiting activity, the changes that were caused by the essential oils appeared to coincide with those present in gynecomastia.

"Lavender oil and tea tree oil," explains Ramsey, "pose potential environmental health concerns and should be investigated further," especially since many of the chemicals they tested can be found in 65 other essential oils that are currently marketed as safe.

Title: Aromatherapy Essential Oils and Hormone Activity: Understanding Hormone-Blocking Therapy and Safe Essential Oil Use for Breast Cancer Introduction:

Breast cancer is a complex disease, with hormone receptor positive breast cancer accounting for about two-thirds of cases. Hormone-blocking therapy, also known as endocrine therapy, plays a vital role in treating hormone receptor positive breast cancer. In this workshop, we will explore the connection between aromatherapy essential oils and hormone activity, with a specific focus on hormone blockers for breast cancer. Additionally, we will discuss essential oils that are safe for individuals with breast cancer and their potential impact on hormone balance.

Understanding Hormone-Blocking Therapy for Breast Cancer:

Hormone-blocking therapy is a targeted treatment approach that deprives hormone receptor positive breast cancer cells of the hormones (estrogen and/or progesterone) they require for growth and reproduction. It is administered orally and typically recommended for at least five years after other breast cancer treatments, such as surgery, chemotherapy, and radiotherapy. Recent research suggests that extending hormone-blocking therapy up to 10 years further reduces the risk of cancer recurrence. For individuals with metastatic breast cancer, hormone-blocking therapy helps shrink or slow the growth of cancer cells.

Common medications used in hormone-blocking therapy include Tamoxifen, which is suitable for both pre and post-menopausal individuals, and aromatase inhibitors such as anastrozole, letrozole, and exemestane, which are specifically recommended for post-menopausal individuals. For premenopausal individuals, ovarian suppression treatment may be combined with oral hormone-blocking therapy to reduce estrogen production.

How Does Hormone-Blocking Therapy Work?

Hormone-blocking therapy effectively inhibits breast cancer cell growth by disrupting the supply of hormones they rely on. It reduces the risk of cancer spreading to other parts of the body and lowers the chances of developing new breast cancers. By understanding the mechanism of hormone-blocking therapy, individuals can make informed decisions about their treatment options and potential side effects.

Side Effects of Hormone-Blocking Therapy:

Hormone-blocking therapy can lead to various side effects, which may include menopausal symptoms like hot flushes, night sweats, heart palpitations, weight gain, mood swings, and reduced libido. Other side effects may include anxiety, sleep disturbances, and fatigue. Aromatase inhibitors, in particular, can cause joint stiffness, pain, bone thinning, and weakening, leading to an increased risk of fractures and osteoporosis.

Regular monitoring of bone mineral density, calcium, and Vitamin D levels is recommended, along with possible interventions to protect bone health. Essential Oils and Hormone Activity:

Essential oils contain hundreds of chemicals, and some studies have explored their potential endocrine-disrupting activity. A study investigating lavender and tea tree oil found that certain components present in these oils had endocrine-disrupting effects to varying degrees. However, it is important to note that the study did not conclusively establish a direct link between essential oils and breast growth in young boys or girls, nor did it classify lavender oil as a hormone disruptor.

Renowned aromatherapy expert Robert Tisserand concludes that lavender oil does not mimic estrogen or enhance the body's own estrogens, making it safe for use by anyone at risk for estrogen-dependent cancer. While further research is needed to explore the potential environmental health concerns associated with essential oils, caution should be exercised when using them, especially if you have specific health conditions or concerns.

Safe Essential Oils for Breast Cancer and Hormone Balance:

When considering essential oil use for individuals with breast cancer, it is crucial to prioritize safety and consult with healthcare professionals. While some essential oils may be generally considered safe, such as lavender, it is essential to take individual circumstances into account. Personalized

Clary sage is often cited as an essential oil with potential estrogen-blocking properties. It contains natural compounds, such as sclareol, which have been suggested to have an effect on estrogen receptors in the body. However, it is important to note that the research on clary sage's estrogen-blocking activity is limited and inconclusive.

While clary sage is often mentioned in discussions about estrogen-blocking essential oils, it is not the only oil believed to possess such properties. Some other essential oils that have been suggested to have potential estrogen-blocking effects include:

- Thyme: Thyme essential oil contains thymol, a compound that has been shown to have anti-estrogenic effects in some studies. It is believed to interfere with estrogen receptors and exhibit estrogen-blocking activity.
- Peppermint: Peppermint essential oil contains menthol, which has been found to exhibit anti-estrogenic effects in certain studies. However, more research is needed to fully understand its mechanisms of action and its potential impact on estrogen receptors.

- Lemon balm: Lemon balm essential oil, derived from the Melissa officinalis plant, is believed to possess anti-estrogenic properties. Some studies suggest that it may interact with estrogen receptors and modulate estrogenic activity in the body.
- **Frankincense**: Frankincense essential oil has been associated with potential anti-estrogenic effects. It contains boswellic acids, which have been studied for their inhibitory effects on aromatase, an enzyme involved in estrogen synthesis.
- **Fennel:** Fennel essential oil is believed to have estrogenmodulating effects. It contains anethole, a compound that has shown estrogenic and anti-estrogenic properties in various studies.
- Myrrh: Myrrh essential oil is known for its antiinflammatory and antioxidant properties. Some studies suggest that it may influence estrogen receptors and exhibit estrogen-modulating effects.

It is important to emphasize that the research on the estrogen-blocking effects of essential oils is still limited, and the mechanisms of action are not fully understood. The use of essential oils as hormone blockers should be approached with caution, and it is recommended to consult with healthcare professionals before using them, particularly for individuals with hormone-related conditions such as breast cancer.

When it comes to essential oils, it is important to understand that their effects on health, including hormone activity, are not instant or drastic with a single use. Essential oils work through a cumulative and long-term approach, and consistent use over time is often necessary to observe noticeable effects on health and well-being.

Using an essential oil once or sporadically is unlikely to have significant or lasting impacts on hormone balance or any other aspect of health. Essential oils work through the synergy of their natural chemical components, which interact with the body in subtle ways. These interactions occur gradually and require regular and sustained use to potentially influence physiological processes.

Long-term use of essential oils allows the body to adapt to their properties and may yield more noticeable effects. For example, if an individual chooses to use clary sage or any other essential oil for its potential estrogen-blocking properties, it would typically be incorporated into their wellness routine over an extended period. Consistent and regular use may support a more

balanced hormone environment, but it is important to note that individual responses can vary.

Furthermore, the effects of essential oils on health are multifaceted and can vary depending on factors such as the specific oil used, individual physiology, dosage, and the presence of underlying health conditions. Essential oils should always be used in moderation and with proper knowledge of their potential interactions and contraindications. It is worth mentioning that essential oils should not be viewed as standalone treatments or substitutes for medical advice. They can be considered as complementary tools to support overall well-being when used appropriately and in conjunction with a healthy lifestyle, including proper nutrition, regular exercise, and medical care.

In summary, the accumulative effects of essential oils on health, including hormone balance, are realized through consistent and long-term use. Using an essential oil once or infrequently is unlikely to result in significant health benefits or disruptions. It is essential to approach essential oil use with a balanced perspective, understanding that they are just one component of a holistic approach to wellness.

When it comes to essential oils and estrogenic activity, there is ongoing debate and limited scientific research regarding their specific effects. However, it is generally recommended to exercise caution with certain essential oils that are believed to have potential estrogenic properties. These oils may mimic or interact with estrogen receptors in the body, potentially influencing hormone balance. It is important to note that individual responses to essential oils can vary, and what may affect one person may not have the same impact on another. If you have concerns about estrogenic activity or specific health conditions, it is advisable to consult with a healthcare professional before using essential oils. While further research is needed to fully understand the estrogenic effects of essential oils, some oils that are often suggested to be used with caution or avoided include:

- Clary Sage: Clary sage is often mentioned for its potential estrogenic activity. While the research on its effects is limited, it is advisable to exercise caution, especially for individuals with hormone-sensitive conditions.
- Fennel: Fennel essential oil is believed to have estrogenic properties and may interact with hormone receptors. It is often recommended to avoid fennel oil or use it with caution, particularly

during pregnancy or for individuals with estrogen-related health concerns.

- Anise: Anise essential oil is known for its distinctive licorice-like aroma and is thought to possess estrogenic activity. Due to its potential influence on hormones, it is advised to use anise oil with caution.
- **Licorice:** Licorice essential oil is derived from the root of the licorice plant and is believed to have estrogenic effects. It is often recommended to avoid using licorice oil, especially for prolonged periods or in high concentrations.

It is important to note that this list is not exhaustive, and individual sensitivities and reactions can vary. Moreover, essential oils are highly concentrated substances, and proper dilution and usage guidelines should always be followed.

To ensure safe and appropriate use of essential oils, consider consulting with a qualified aromatherapist, herbalist, or healthcare professional who can provide personalized advice based on your specific needs and health considerations.

Workshop Outline: Aromatherapy Essential Oils and Hormone Activity

- I. Introduction
- A. Overview of hormone-blocking therapy for breast cancer
- B. Importance of understanding hormone activity and its impact on health
- C. Introduction to aromatherapy essential oils and their potential effects on hormones
- II. Understanding Hormone-Blocking Therapy for Breast Cancer
- A. Explanation of hormone receptor positive breast cancer
- B. Role of hormone-blocking therapy in treating breast cancer
- C. Medications used in hormone-blocking therapy (e.g., Tamoxifen, aromatase inhibitors)
- D. Combination treatments for pre-menopausal individuals (e.g., ovarian suppression)
- E. Different durations of hormone-blocking therapy based on cancer stage

III. Mechanism of Action of Hormone-Blocking Therapy

- A. How hormone-blocking therapy deprives cancer cells of hormones
- B. Effectiveness in reducing the risk of cancer spreading or recurring
- C. Differentiating hormone-blocking therapy from hormone replacement therapy (HRT)
- IV. Side Effects of Hormone-Blocking Therapy
- A. Common side effects of hormone-blocking therapy
- 1. Menopausal symptoms (e.g., hot flushes, night sweats)
- 2. Emotional and psychological effects (e.g., anxiety, mood swings)
- 3. Sleep disturbances and fatigue
- B. Specific side effects of aromatase inhibitors (e.g., joint stiffness, bone weakening)
- 1. Importance of bone health and monitoring bone density
- 2. Available treatments and interventions for side effects
- V. Essential Oils and Hormone Activity
- A. Introduction to essential oils and their chemical composition
- B. Potential endocrine-disrupting activity of essential oils
- C. Research findings on specific essential oils and hormone activity
- 1. Study on lavender and tea tree oil as potential endocrine disruptors
- 2. Analysis of specific chemicals in essential oils and their effects
- D. Discussion on the safety of essential oils for individuals with breast cancer
- 1. Expert perspective on lavender oil as safe for estrogen-dependent cancer
- 2. Considerations for using essential oils and consulting healthcare professionals

VI. Safe Essential Oils for Breast Cancer and Hormone Balance

- A. Overview of essential oils considered safe for individuals with breast cancer
- B. Essential oils that support hormone balance and overall well-being
- C. Precautions and guidelines for using essential oils safely
- D. Personalized recommendations based on individual circumstances and health status

VII. Q&A Session and Discussion

- A. Open floor for questions, concerns, and sharing experiences
- B. Addressing participant queries about essential oils and hormone activity
- C. Providing additional resources and references for further exploration

VIII. Conclusion and Takeaways

- A. Summary of key points discussed during the workshop
- B. Emphasizing the importance of informed decision-making and consulting professionals
- C. Encouraging participants to explore safe and beneficial uses of essential oils
- D. Closing remarks and gratitude

Hormone-blocking therapy

Hormone-blocking therapies are drugs used to treat hormone receptor positive breast cancer.

Around two-thirds of breast cancers are hormone receptor positive, which means that they need female hormones (oestrogen and/or progesterone) to grow and reproduce. Most people with hormone receptor positive breast cancer will be offered hormone-blocking therapy (sometimes called endocrine therapy).

Hormone-blocking therapy is given as an oral medication. For people with early breast cancer, it is usually recommended that it is taken daily for at least five years after the completion of your other breast cancer treatments (surgery, chemotherapy and/or radiotherapy). Research shows that taking hormone-blocking therapy for up to 10 years may further reduce the risk of breast cancer returning. Some people are now recommended 10 years of hormone-blocking treatment.

For people with hormone receptor positive metastatic breast cancer, hormone-blocking therapy is used to help shrink or slow the growth of their cancer. It is usually taken for as long as it works. When a particular hormone-blocking therapy stops being effective, your treating doctor may usually recommend a different one.

Tamoxifen is one of the best-known hormone-blocking therapy medications. It can be used to treat pre and post-menopausal people. Aromatase inhibitors such as anastrozole, letrozole and exemestane are also hormone-blocking therapies, however they are only suitable for people who have completed menopause.

For people who are pre-menopausal, ovarian suppression treatment may be given in combination with oral hormone-blocking therapy. This may be necessary as oestrogen is mainly produced in the ovaries prior to menopause. Ovarian suppression can be in the form of monthly injections or surgery.

Note: Hormone-blocking therapy used to treat breast cancer is not the same as hormone replacement therapy (HRT) used to manage the symptoms of menopause.

How does hormone-blocking therapy work?

Hormone-blocking therapy works by depriving breast cancer cells of the hormones that they use to grow. It is used to kill any breast cancer cells that might be present in the breast or elsewhere in the body. It has been found to be very effective in reducing the risk of the cancer spreading to other parts of the body, or of a new breast cancer developing in the same or other breast.

Side effects

Hormone-blocking therapy can have side effects, including:

- Menopausal symptoms such as hot flushes, night sweats, heart palpitations, weight gain, mood swings and reduced libido
- Anxiety
- Sleep disturbance
- Fatigue.

Aromatase inhibitors can cause joint stiffness and pain as well as thinning and weakening of the bones. This can result in bone fractures and osteoporosis. Your doctor may recommend that you have a bone mineral density scan, called a DXA or DEXA scan, before starting your treatment. You may also have your calcium and Vitamin D levels checked. Sometimes you

may be prescribed a bone strengthening medication to protect your bones from fractures. More information is available on the <u>Bone health page</u>. If you are finding side effects of hormone-blocking therapy difficult to manage, talk to your medical oncologist. They may be able to give you some advice to help you manage side effects, or switch you to one of the other hormone-blocking therapy drugs. website.

Tisserand concludes that "Lavender oil does not mimic estrogen nor does it enhance the body's own estrogens. It is therefore not a 'hormone disruptor', cannot cause breast growth in young boys (or girls of any age), and is safe to use by anyone at risk for estrogen-dependent cancer."

Lavender, tea tree oil as endocrine disruptors

Essential oils contain hundreds of chemicals. For the new study, however, Ramsey and team picked out and analyzed:

- eucalyptol
- 4-terpineol
- dipentene/limonene
- alpha-terpineol
- linalyl acetate
- linalool
- alpha-terpinene
- gamma-terpinene

The first four components are common to both tea tree oil and lavender oil. The research revealed that all of the chemicals tested had an endocrine-disrupting activity to a certain extent.

While some of the compounds had little to no estrogenic or testosteroneinhibiting activity, the changes that were caused by the essential oils appeared to coincide with those present in gynecomastia.

"Lavender oil and tea tree oil," explains Ramsey, "pose potential environmental health concerns and should be investigated further," especially since many of the chemicals they tested can be found in 65 other essential oils that are currently marketed as safe.

Title: Aromatherapy Essential Oils and Hormone Activity: Understanding Hormone-Blocking Therapy and Safe Essential Oil Use for Breast Cancer Introduction:

Breast cancer is a complex disease, with hormone receptor positive breast cancer accounting for about two-thirds of cases. Hormone-blocking therapy, also known as endocrine therapy, plays a vital role in treating hormone receptor positive breast cancer. In this workshop, we will explore the connection between aromatherapy essential oils and hormone activity, with a specific focus on hormone blockers for breast cancer. Additionally, we will discuss essential oils that are safe for individuals with breast cancer and their potential impact on hormone balance.

Understanding Hormone-Blocking Therapy for Breast Cancer:

Hormone-blocking therapy is a targeted treatment approach that deprives hormone receptor positive breast cancer cells of the hormones (estrogen and/or progesterone) they require for growth and reproduction. It is administered orally and typically recommended for at least five years after other breast cancer treatments, such as surgery, chemotherapy, and radiotherapy. Recent research suggests that extending hormone-blocking therapy up to 10 years further reduces the risk of cancer recurrence. For individuals with metastatic breast cancer, hormone-blocking therapy helps shrink or slow the growth of cancer cells.

Common medications used in hormone-blocking therapy include Tamoxifen, which is suitable for both pre and post-menopausal individuals, and aromatase inhibitors such as anastrozole, letrozole, and exemestane, which are specifically recommended for post-menopausal individuals. For premenopausal individuals, ovarian suppression treatment may be combined with oral hormone-blocking therapy to reduce estrogen production.

How Does Hormone-Blocking Therapy Work?

Hormone-blocking therapy effectively inhibits breast cancer cell growth by disrupting the supply of hormones they rely on. It reduces the risk of cancer spreading to other parts of the body and lowers the chances of developing new breast cancers. By understanding the mechanism of hormone-blocking therapy, individuals can make informed decisions about their treatment options and potential side effects.

Side Effects of Hormone-Blocking Therapy:

Hormone-blocking therapy can lead to various side effects, which may include menopausal symptoms like hot flushes, night sweats, heart palpitations, weight gain, mood swings, and reduced libido. Other side effects may include anxiety, sleep disturbances, and fatigue. Aromatase inhibitors, in particular, can cause joint stiffness, pain, bone thinning, and weakening, leading to an increased risk of fractures and osteoporosis.

Regular monitoring of bone mineral density, calcium, and Vitamin D levels is recommended, along with possible interventions to protect bone health. Essential Oils and Hormone Activity:

Essential oils contain hundreds of chemicals, and some studies have explored their potential endocrine-disrupting activity. A study investigating lavender and tea tree oil found that certain components present in these oils had endocrine-disrupting effects to varying degrees. However, it is important to note that the study did not conclusively establish a direct link between essential oils and breast growth in young boys or girls, nor did it classify lavender oil as a hormone disruptor.

Renowned aromatherapy expert Robert Tisserand concludes that lavender oil does not mimic estrogen or enhance the body's own estrogens, making it safe for use by anyone at risk for estrogen-dependent cancer. While further research is needed to explore the potential environmental health concerns associated with essential oils, caution should be exercised when using them, especially if you have specific health conditions or concerns.

Safe Essential Oils for Breast Cancer and Hormone Balance:

When considering essential oil use for individuals with breast cancer, it is crucial to prioritize safety and consult with healthcare professionals. While some essential oils may be generally considered safe, such as lavender, it is essential to take individual circumstances into account. Personalized

Clary sage is often cited as an essential oil with potential estrogen-blocking properties. It contains natural compounds, such as sclareol, which have been suggested to have an effect on estrogen receptors in the body. However, it is important to note that the research on clary sage's estrogen-blocking activity is limited and inconclusive.

While clary sage is often mentioned in discussions about estrogen-blocking essential oils, it is not the only oil believed to possess such properties. Some other essential oils that have been suggested to have potential estrogen-blocking effects include:

- Thyme: Thyme essential oil contains thymol, a compound that has been shown to have anti-estrogenic effects in some studies. It is believed to interfere with estrogen receptors and exhibit estrogen-blocking activity.
- Peppermint: Peppermint essential oil contains menthol, which has been found to exhibit anti-estrogenic effects in certain studies. However, more research is needed to fully understand its mechanisms of action and its potential impact on estrogen receptors.

- Lemon balm: Lemon balm essential oil, derived from the Melissa officinalis plant, is believed to possess anti-estrogenic properties. Some studies suggest that it may interact with estrogen receptors and modulate estrogenic activity in the body.
- **Frankincense**: Frankincense essential oil has been associated with potential anti-estrogenic effects. It contains boswellic acids, which have been studied for their inhibitory effects on aromatase, an enzyme involved in estrogen synthesis.
- **Fennel:** Fennel essential oil is believed to have estrogenmodulating effects. It contains anethole, a compound that has shown estrogenic and anti-estrogenic properties in various studies.
- Myrrh: Myrrh essential oil is known for its antiinflammatory and antioxidant properties. Some studies suggest that it may influence estrogen receptors and exhibit estrogen-modulating effects.

It is important to emphasize that the research on the estrogen-blocking effects of essential oils is still limited, and the mechanisms of action are not fully understood. The use of essential oils as hormone blockers should be approached with caution, and it is recommended to consult with healthcare professionals before using them, particularly for individuals with hormone-related conditions such as breast cancer.

When it comes to essential oils, it is important to understand that their effects on health, including hormone activity, are not instant or drastic with a single use. Essential oils work through a cumulative and long-term approach, and consistent use over time is often necessary to observe noticeable effects on health and well-being.

Using an essential oil once or sporadically is unlikely to have significant or lasting impacts on hormone balance or any other aspect of health. Essential oils work through the synergy of their natural chemical components, which interact with the body in subtle ways. These interactions occur gradually and require regular and sustained use to potentially influence physiological processes.

Long-term use of essential oils allows the body to adapt to their properties and may yield more noticeable effects. For example, if an individual chooses to use clary sage or any other essential oil for its potential estrogen-blocking properties, it would typically be incorporated into their wellness routine over an extended period. Consistent and regular use may support a more

balanced hormone environment, but it is important to note that individual responses can vary.

Furthermore, the effects of essential oils on health are multifaceted and can vary depending on factors such as the specific oil used, individual physiology, dosage, and the presence of underlying health conditions. Essential oils should always be used in moderation and with proper knowledge of their potential interactions and contraindications. It is worth mentioning that essential oils should not be viewed as standalone treatments or substitutes for medical advice. They can be considered as complementary tools to support overall well-being when used appropriately and in conjunction with a healthy lifestyle, including proper nutrition, regular exercise, and medical care.

In summary, the accumulative effects of essential oils on health, including hormone balance, are realized through consistent and long-term use. Using an essential oil once or infrequently is unlikely to result in significant health benefits or disruptions. It is essential to approach essential oil use with a balanced perspective, understanding that they are just one component of a holistic approach to wellness.

When it comes to essential oils and estrogenic activity, there is ongoing debate and limited scientific research regarding their specific effects. However, it is generally recommended to exercise caution with certain essential oils that are believed to have potential estrogenic properties. These oils may mimic or interact with estrogen receptors in the body, potentially influencing hormone balance. It is important to note that individual responses to essential oils can vary, and what may affect one person may not have the same impact on another. If you have concerns about estrogenic activity or specific health conditions, it is advisable to consult with a healthcare professional before using essential oils. While further research is needed to fully understand the estrogenic effects of essential oils, some oils that are often suggested to be used with caution or avoided include:

- Clary Sage: Clary sage is often mentioned for its potential estrogenic activity. While the research on its effects is limited, it is advisable to exercise caution, especially for individuals with hormone-sensitive conditions.
- Fennel: Fennel essential oil is believed to have estrogenic properties and may interact with hormone receptors. It is often recommended to avoid fennel oil or use it with caution, particularly

during pregnancy or for individuals with estrogen-related health concerns.

- Anise: Anise essential oil is known for its distinctive licorice-like aroma and is thought to possess estrogenic activity. Due to its potential influence on hormones, it is advised to use anise oil with caution.
- **Licorice:** Licorice essential oil is derived from the root of the licorice plant and is believed to have estrogenic effects. It is often recommended to avoid using licorice oil, especially for prolonged periods or in high concentrations.

It is important to note that this list is not exhaustive, and individual sensitivities and reactions can vary. Moreover, essential oils are highly concentrated substances, and proper dilution and usage guidelines should always be followed.

To ensure safe and appropriate use of essential oils, consider consulting with a qualified aromatherapist, herbalist, or healthcare professional who can provide personalized advice based on your specific needs and health considerations.