Module 8 / Lesson 1

Introduction to Olfaction -
Our Sense of Smell

Learning Objectives

After completing this lesson, you will be able to:

1. List and discuss the potential therapeutic benefits of utilizing the sense of smell and aromatherapy.

2. Share 5 interesting facts about the sense of smell.

3. Discuss why exercising the sense of smell can be of value.

4. Discuss five olfactory disorders.

5. List and discuss five contributing factors to olfactory disorders.
INTRODUCTION

Of the five primary senses—touch, taste, smell, sight, and hearing—smell is considered to be the most neglected, overlooked, and least understood or appreciated. According to Gibbons (1986), aromas reach into our emotional life, drawing from the deepest caves in our minds whereby they suggest, stimulate association, evoke, frighten, and arouse us.¹ Maury (1989) comments that the use of odoriferous matter induces a true sentimental and mental liberation and essential oils free us from encumbering emotions while leaving our faculties unimpaired.² This module is dedicated to exploring olfaction, defined as ‘the sense of smell’ or ‘the act or process of smelling’ and its potential therapeutic applications. The subject of olfaction is vast, but attempts have been made to provide you with information relevant to a foundations study of the sense of smell.

Potential Benefits of Olfactory Aromatherapy

Olfactory aromatherapy is defined as the therapeutic use of the sense of smell and the aromas of essential oils to enhance mind/body/spirit well-being. Olfactory research and empirical studies have been able to show that aromas can produce a wide range of effects and can be of great benefit to emotional/psychological conditions and physical health, particularly stress-related conditions.

PLEASE NOTE: Olfactory benefits are benefits derived from the impact of the aroma/essential oil on the brain, specifically the limbic system (e.g. impact of aroma on emotions, nervous system, endocrine system, etc.). Inhalation, on the other hand, tends to be the benefits of essential oils on the respiratory system (e.g. steam inhalation) and the emotions/brain (e.g. direct palm inhalation).

To summarize some of the research findings, aromas can:

- Reduce or alleviate stress and anxiety
- Relieve pain by altering pain perception (in the brain)
- Induce sleep or relaxation
- Increase alertness and overall performance
- Be used for weight control or loss
- Balance and adjust sleep patterns
- Help in alleviating nausea
- Affect and improve mood and increase overall emotional well-being
- Useful stress management tool due to impact on autonomic nervous system
- Ease physical ailments, particularly stress-related disorders
- Help shape our impressions of self and others

Exercise Your Sense of Smell

The sense of smell, like muscles and the brain, needs exercise to become stronger. Often when someone thinks they don’t have a good sense of smell it is because they don’t consciously use it. Also, some individuals don’t like the smell of essential oils at first, and often this is because they have been brought up on synthetic odors and are used to the way synthetics smell. More often than not, however when that same individual begins to exercise their sense of smell and become more familiar with the natural aromas of essential oils, they begin to experience the vast differences between synthetics and natural aromas.
To exercise the sense of smell, begin by simply observing different aromas/smells within your environment. Then move on to smelling plants when they are in bloom or natural, authentic essential oils. Take time to truly experience the nuances of an aroma. You could even keep a journal of all the different aromas you observe. Share your experiences with others.

FACTS ABOUT THE SENSE OF SMELL

• The sense of smell is very underestimated. Smell is our first primary defense mechanism. Our reaction to smell is quicker at 0.5 seconds than to pain at 0.9 seconds, although we react more quickly to auditory stimuli at 0.15 seconds (Genders).

• The average healthy person can distinguish between ten and forty thousand odors (ad infinitum), many on a subliminal level.

• Smell relays messages from our outer world directly to the brain, influencing the physical body, mind, and emotions.

• Olfactory nerve cells regenerate every thirty to sixty days, clearly underlining their importance.

• Smell is a chemical sense,; the receptors respond to chemical stimuli. To arouse sensation, a substance must first be in a gaseous state before going into a mucous solution.

Before moving into the anatomy of our sense of smell, let’s take a quick look at the types of olfactory disorders.
DISORDERS OF OLFACCTION

Smell is a powerful influence in our lives and affects us in our physical, psychological, and social life. Imagine life without smell! According to extensive research done on anosmia, it appears that life without smell can lead to a lack of drive and motivation, depression, and suppressed appetite with a lack of interest in foods.

The following is a list of olfactory disorders that are currently known.

- **Anosmia**: Total inability to smell any aromatic substance. Individuals suffering from this condition have an inclination toward depression and reduced libido. The condition can be congenital or the result of a head injury sustained in a car accident or the like. Anosmia can also be caused by long-term exposure to toxic chemicals or surgery.

- **Hyposmia**: Partial loss of smell.

- **Hyperosmia**: Extreme sensitivity to aromas.

- **Parosmia**: A distortion of imagined odors

- **Cacosmia**: Smelling a continuous foul odor

**Causes of olfactory disorders:**

Some diseases that have been found to cause a loss of smell include nasal obstruction, vitamin A deficiency, acute viral hepatitis, disorders of the endocrine system, Turners syndrome, temporal lobe lesions, Parkinson's, Alzheimer’s, and changes in estrogen receptors and breast cancer theorized to be secondary to hypothalamic lesions in the brain. Other potential causes and natural states (olfactory fading and fatigue) include:

- **Viral Diseases**: Viral diseases such as the flu, common cold, and acute viral hepatitis tend to cause anosmia, which is more often than not a temporary state.

- **The Common Cold or Smoking**: Inflammation of the nasal mucosa prevents odorous substances from reaching the olfactory area of the nose, causing a temporary loss of smell. This is usual for the common cold or smoking.

- **Olfactory Fading and Fatigue:**
  - **Olfactory fading** occurs when our olfactory system adapts to a smell and ceases to register the aroma. An example of olfactory fading would be the smell of our own home that we grow accustomed to and therefore cease to register how it actually smells.

  - **Olfactory fatigue**, on the other hand, is what happens when our olfactory system is exposed to numerous odors within a short span of time. During fatigue we are no longer able to distinguish between one odor and another. This is when it is time to get a good whiff of coffee beans as they help to clear the nasal palate, so to speak.

- **Pathological Processes**: This occurs in the nasal cavities, such as inflammation of mucus membranes, jaw, or sinuses.
References

