



# MOOD:

Research shows that there is a 40% improvement in mood after being exposed to pleasant scents.

Our sense of smell is the strongest of the five senses, and the one most tied to memory and emotion. 75% of all emotions generated every day are due to smell, and because of this, we are 100 times more likely to remember something we smell over something we see, hear or touch.

Since the olfactory nerve is directly linked to the part of the brain that monitors memories and emotions, scent affects mood, concentration, memory recall and emotion. Research shows that there is a 40% improvement in mood after being exposed to pleasant scents.

Scent marketing continues to be a growing trend that works. So - what can scent do for a business?

- + Build value. Scented areas are perceived as higher-end and more luxurious.
  - **For example:** A Nike study showed scent affected desirability of shoes in 84% of subjects, with subjects willing to pay 10-20% more in scented environments.
- + Increase shopper dwell time. Shoppers tend to stay longer in locations using a scent solution, by an average of at least 15 minutes.
  - **For example:** A study showed Samsung shoppers underestimated actual shopping time by 26% and visited three times more product categories when exposed to scent marketing. An additional casino study showed a 45% revenue increase for slot machines in scented areas, and a 40% increase in dwell time vs. areas without scent.

- + Improve employee productivity & satisfaction. Different scents can improve environments and influence emotions and reactions.
  - **For example:** A Japanese company found that lavender and jasmine soothed data entry operator stress, while a lemon scent increased productivity by up to 54%.
- + Promote a theme or product. Scent can add character to a themed environment, help customers “escape” to another place, or promote a product.
  - **For example:** A well-known night club in London doubled their sales of a particular Malibu drink by introducing a coconut scent into the atmosphere.

## CONTACT

To find out more on how Mood Solutions can help design your customer experience, contact us at:

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# MOOD:

- + Ambient scent can reduce perceived waiting times and improve customer evaluations of service.

Vanilla can reduce claustrophobia in MRI facilities, calm pre-surgery and dental patients, and can reduce patient cancellations. Neutralizing unpleasant odors for patients with a heightened sense of smell will also soothe and comfort. Citrus uplifts and helps ease anxiety.

## BENEFITS OF AROMATHERAPY

Researchers have found that the use of fragrances can reduce anxiety for people in certain stressful situations, for example when undergoing an MRI scan in a hospital.

In a US study form, patients that were exposed to a sweet vanilla-like scent experienced 63% less overall anxiety than those not exposed. Fragrance cannot only reduce stress, but it can also affect our sleep. Peppermint for example can stimulate the brain and thus disturb sleep. Heliotropin, however, a vanilla-like smell, can relax the brain and enhance sleep.

Perhaps the most striking reaction to fragrances is in the realm of memories. Almost everyone has experienced a rush of emotion after encountering a certain scent. Images of baking bread, a new car, or even a first kiss, can all be brought to mind with one simple smell. This is because the human odor response is controlled by the brain's limbic system, the same system that controls our emotional response, artistic abilities and perceptions of space. This is why fragrances can be so important to us and we seek them out in our products and daily environment.

## OVERVIEW

Sensory branding is used to relate to the customer in a more personal way than mass marketing. It is a technique that does what traditional forms of advertising cannot. It is used in retail design, magazines, showrooms, trade-fair booths, service centers, and corporate headquarters. A multi-sensory experience occurs when the customer is appealed to by two or more senses. Sensory branding is most effective when all the senses are engaged. Also, the more senses engaged, the more customers will pay for the product.

Smell is used in branding because it increases the customers' remembrance of the brand. Smell is the sense most linked to our emotional recollection. It can create instant connections between a brand and other memories. Neuromarketing studies show that 75% of emotions are triggered by smell. Smell is linked to pleasure and wellbeing, emotion and memory. Therefore it can influence customers' emotional state and mood to make the customers more susceptible to impact customer behavior. Restaurants sometimes send artificial smells into the areas around the venue to increase awareness of their product.

## SCIENTIFIC RESEARCH

Research by the Sense of Smell Institute indicates that while people's visual recall of images sinks to approximately 50% after only three months, they recall smells with a 65% accuracy after an entire year. Similarly, a study carried out at the Rockefeller University shows that in the short term we remember just 1% of what we touch, 2% of what we hear, 5% of what we see, 15% of what we taste and 35% of what we smell.

During the past two decades, a considerable amount of researches have been conducted in the USA, Europe and Japan to measure not only the psychometric effects of fragrance upon feelings, moods and emotions but also other related physiological responses. The techniques applied were: electrical activity in the brain, physiological parameters such as heart rate, skin conductance and Cortisol level assays to measure response to fragrances and their effect on mood, memory and voluntary and non-voluntary behavior.

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## SPECIFIC POSITIVE EFFECTS OF FRAGRANCES ON HUMANS

### + THE MOOD BENEFITS

Recent research has shown that fragrances have significant measurable effects on mood states. Craig and Warrenburg developed a self-administered, quantitative method that measures subjective mood changes evoked by fragrances. They found that eight major factors of mood are affected by fragrance. These include irritation, stress, depression, apathy, enhancement of happiness, sensuality, relaxation and stimulation. Basically fragrance is emotional. The sense of smell triggers of the human limbic system of the brain, which is an area where emotions and memories exist. Consequently, fragrance evokes a hedonic response of pleasure/ displeasure and emotional response of happiness and relaxation. Manne and Redd used fragrance materials to reduce distress during magnetic resonance imaging. Eighty five patients undergoing MRI scan participated in the trial at Memorial Sloan- Kettering Cancer Centre. Patients who were exposed to a vanilla scent fragrance while undergoing MRI experienced approximately 63% less overall anxiety than a control group of patients who were not exposed to a fragrance.

The mood benefits of fragrances can have positive effects in real life situations according to Dr. S. Schiffman. It is accepted that the use of fragrance can improve mood in both women and men at mid-life. Feelings of tension, depression, and confusion were significantly alleviated by a pleasant fragrance in female subjects. Weigand and co-workers have also studied the effects of relaxing fragrances on lowering Cortisol and increasing sIgA levels. These findings formed the basis of claims for fragrances used in relaxing air fresheners.

### + STRESS REDUCTION

There is a significant relationship between positive mood state and health. The immune system and the cardiovascular system appear to be stronger in individuals with more positive mood and less stress. More scientific studies have shown that fragrances induce positive mood results in measurable health effects. For example, researchers have found that inhaling a relaxing fragrance ingredient speeds up the recovery of skin barrier function of slightly damaged skin. Also, certain fragrances may reduce performance related stress as measured physiologically in lowered blood pressure, reduced muscle tension or reduced startle reflex.



# MOOD:

## + IMPROVING WORK PERFORMANCE

Fragrances can have positive effects on the work environment. Recent studies have shown that the use of pleasant fragrances during a task that requires attention improves performance. Warm and coworkers measured the effects of olfactory stimulation on performance and stress in a demanding and stressful attention task. The odors used were muguet and peppermint. The former was known as relaxing and the latter as alerting. Both fragrances significantly improved performance in the test, but had no difference in effectiveness between the two of them. Neither of these odorants had a significant effect on stress reduction while performing the task.

Karamat and co-workers found that lavender oil significantly increased decision time in a computer-based reaction time task but did not influence motor time. It suggested that lavender oil has a central but not a peripheral sedative effect. Another test suggested that lavender oil caused significant increase in reaction time, while jasmine caused the opposite.

## + FRAGRANCE AND SLEEP

Relaxing fragrance materials such as lavender help the sleeping process. A study for the fragrance effects was conducted by Badia and coworkers. They found that by measuring changes in heart rate, brain waves and muscle tension: people are responsive to odors in their sleep. When odors were presented during REM(dream) sleep, individuals often incorporated these stimuli into their dreams. Heliotropin is claimed to enhance sleep, but the effect was not statistically significant. The latency to sleep was shorter and the sleep efficiency was higher with heliotropin.

## CONCLUSION

It is overall accepted that a smell of a fragrance can influence mood, memory, emotions, stress, sustained attention and problem solving, friends choice, the endocrine system and the ability to communicate by smell without knowing it.

The effects mentioned can be elicited both by consciously and subliminally perceived odors. The work done so far is an important step but it will require further research and refinement for each fragrance benefit.

A vanilla perfume was used in NYC' Memorial Sloan Kettering Cancer Centre to turn anxiety in patients before MRIs' and it worked.

## THE CHALLENGE

Fear is one of the most powerful emotions. And what could be more fearful than a visit to the hospital for an MRI? Celebration Health, Florida Hospital's health care facility located in Disney's town of Celebration, had a serious problem with patients canceling MRI appointments at the last minute. These cancellations could not be filled in a timely manner and would ultimately lead to lost revenues. The hospital was seeking a solution to help reduce these cancellations.

## THE SOLUTION

So Celebration Health got creative. They renamed their MRI department to Seaside Imaging and turned it into a relaxing beach-themed environment. Beach murals were painted on the walls throughout the waiting and changing rooms and the usual chairs were replaced with wooden rocking chairs and folding lounge chairs. Even the MRI machine itself was transformed into a large sandcastle. ScentAir provided the fragrances of Coconut Beach and Ocean to complete their revolutionary approach. The result? How does a 50% reduction in cancellations sound?