

REVIEW ARTICLE

Unpleasant Odor In Dental Clinics

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ABSTRACT

Smells are very powerful emotional triggers. This is because of cells in the nose which process smell input send signals directly to the olfactory bulb, which is a part of the limbic system patient can react so severely and immediately to smell that is associated with dental offices. The typical clinging smell which impregnates some dental practices is caused by eugenol, disinfectants used during dental procedures, certain procedures give that antiseptic whiff in a dental office. The strong typical smell in waiting room and operatory room invokes sensations of anxiety and fear in people who may dislike the dentists. This paper focuses on causes and management of obnoxious odors arises from dental clinics

Keywords: Odor in dental office, Aromatherapy, Essential oils.

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INTRODUCTION

Sights, sounds and smells are powerful environmental triggers. If patient suffer with dental phobia, merely evoking the images, sounds and smells that is associate with dentistry is enough to generate intense feelings of anxiety. The typical smell in dental clinics may make

patients make more panic. Waiting for dental procedures patients should stimulated with ambient odor. Patients would appreciate it if it smelled better. There is a growing interest in incorporating complementary therapies in the dental field and aromatherapy is certainly one of the more popular ones.¹

Dental hospitals are pervade by chemical, vomit, spill, perspiration, food, bacteria, and fungus, mold, and mildew odors. Inappropriate ventilation systems in closed dental clinics only recirculate room air which contains perfumes, room deodorants, dirt, dust, and lint. This polluted air results in more offensive smell which is so embarrassing to the patients and visitors.²

What Causes the Dental clinics Smell?

Dental clinics smell actually is a medley of many different odors that can be divided into three main odor-causing categories:

1. Aromas that come from Dental product-

- Dental fillings that contain *eugenol* - also known as clove oil is one of the major smells found in dental hospitals. When using disinfectants like bleach, hydrogen peroxide, formacresol and sodium hypochlorite which have pungent smell occurs while performing root canal procedures.
- **Acrylic Monomer-** Acrylic Monomer, which is used in the plastics that are part of dentures and/or retainers, has a distinct odor.

2. Scents from Cleaning Products

Infection control in dentistry is very crucial. Dentists use many infection-control products that have their own various smells. Few products that may leave a lingering smell in the dental office are

- Antibacterial soaps
- Disinfection wipes used to clean have an alcohol smell
- Gloves - some times dental office smell is caused by gloves.

- When sterilizing dental instruments, in a high-pressure oven that kills every form of life. This process can cause certain smells to gradually nestle their way into the walls of the dental practice.

Rubbing alcohol, surface disinfectants, and eugenol all contribute to that dreaded dental clinic smell. Sterilization of dental instruments as well as glutaraldehyde, a chemical used to clean products that cannot be heat-sterilized, also generate an antiseptic smell.

3. Odors That Come From Dental Procedures

One of the main components of the dental smell is something like tooth dust (Dentine smell). This is that smell that permeates the air when tooth drilled for any reason (such as a filling, crown preparation, or root canal procedure).

The smell of tooth dust can be lessened by using lots of irrigation during the drilling and having the dental assistant hold the suction as close to the tooth as possible.³ The worse smells can come from infected nerves inside the tooth and during dental abscess drainage.

Management: Many dental offices are turning to scented oils and waxes to try to infuse a more pleasant aroma into the dental office.

Effective ventilation system in dental clinics is basic necessity. Minimize the use of eugenol or at the very least triple bag it in Zip-Lock bags then put it in tupperware except on those rare occasions when you will need it. Third, do not use spray disinfectants--use wipes. Dental unit water lines should be thoroughly checked and cleaned time to time. Spittons and washbasins should be flushed frequently. The dustbins in operating room should be covered with lids. And lastly, experiment with aroma therapy.

Lavender scented candles, aroma therapy diffusers, and reed diffusers that are dipped in lavender oil are very useful in controlling the odor in operating area. A few of the uses for aromatherapy in dentistry include the following:

To reduce

- Anxiety
- Stress
- Worry
- Fear
- Panic attacks

To induce

- Relaxation

There are a variety of ways to use essential oils that might lend themselves to environmental therapy in a dental office setting:

1. **In the Diffuser:** 6-10 drops of essential oil to water in the bowl or aroma diffuser
2. **For Potpourri:** 25 drops to unscented dry flower mix (or a potpourri that has lost its scent)
3. **In the Home/Office:** 7 drops added to 11/2 cups of water and sprayed throughout the house
4. **For an Unscented Candle:** 6 drops added to the melted wax in the top of a candle.^{5,6}

Specific essential oils can truly help calm the mind, balance the mood and enhances the productivity, focus and concentration.. One study reported that exposure to ambient odor of orange has a relaxant effect. Specifically, compared to the controls, women who were exposed to orange odor had a quelling anxiety, positive mood, and a higher level of calmness.^{5,6}

A study was done using orange and lavender oils at the University Clinic of Neurology, Medical University of Vienna, Austria.⁷ They tested the effects of inhaling essential oils while waiting for a dental procedure. The goal of the study was to examine the impact of the essential oils of orange and lavender on anxiety, mood, alertness and calmness in dental patients. Another study showed that lavender aromatherapy has the potential to ease anxiety in patients undergoing minimally invasive facial cosmetic procedure. There are some essential oils considered toxic to pregnant women in the first trimester, and then are considered safe thereafter.⁹

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CONCLUSION

The hospital odors are so bad that it makes the patient, the visitors, and clinician too very uncomfortable. Pungent hospital odors are left free to recirculate in the air we breathe and could increase in concentration if left untreated. While there is no way to completely avoid these super-clean scents at your next dental environment. And rest easy knowing that many dental offices have even started using aromatic products to combat it and give olfactory senses a more enjoyable dental experience.

The use of aromatherapy by essential oils in the dental hospitals can be very helpful to patients. Dental offices now use aromatherapy to calm anxious patients and more importantly, to relax dentists while performing procedures.

REFERENCES

1. Zald DH, Pardo JV. Functional neuroimaging of the olfactory system in

- humans. *Int J Psychophysiol* 2000;36:165–81
2. Lehrner J, Eckersberger C, Walla P, Pötsch G, Deecke L. Ambient odor of orange in a dental office reduces anxiety and improves mood in female patients. *Physiol Behav* 2000;71:83–6.
3. Lehrner J, Marwinski G, Lehr S, Jöhren P, and Deecke L. Aromatherapy: Ambient Odors of Orange and Lavender Reduce Anxiety. *Physiology & Behavior* 2005; 86:92–95.
4. Grunebaum LD, Murdock J, Castanedo-Tardan MP, Baumann LS. Effects of lavender olfactory input on cosmetic procedures. *J Cosmet Dermatol*. 2011 Jun; 10:89–93.
5. Kalembe D, Kunicka A. Antibacterial and antifungal properties of essential oils. *Curr Med Chem*. 2003 May; 10(10):813–29.
6. Danielle Sade, *Practitioner's Guide to Essential Oils; Introduction and History of Essential Oils and their Therapeutic Uses; Vol.1, Edition 1, 2006.*
7. Moss M, Cook J, Wesnes K, Duckett P. Aromas of rosemary and lavender essential oils differentially affect memory and mood in healthy adults. *Int J Neurosci* 2003;113:15–38.
8. J. Lehrner, G. Marwinski, S. Lehr, P. Jöhren, L. Deecke. Ambient odors of orange and lavender reduce anxiety and improve mood in a dental office. *Physiology & Behavior* 86 (2005) 92 – 95.
9. Atsumi T, Tonosaki K. Smelling lavender and rosemary increases free radical scavenging activity and decreases cortisol level in saliva. *Psychiatry Res*. 2007 28; 150:89–96.