



**GREEN DENTISTRY: A SHORT COMMUNICATION**

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**ABSTRACT**

Abstract: Eco- friendly dentistry is a new upcoming emerging trend in dentistry. It involves approach that reduces the environmental impact of dental practices in moving ecologically sustainable health care systems. It is an approach to fulfill the patients and succors dental professionals to safeguard planetary and community well being as well as financial health of their practices.

**KEYWORDS:** Green dentistry, Waste management, Eco friendly, Mercury, X ray.

**INTRODUCTION**

The color green has healing power and is understood to be the most restful and relaxing color. Green can help enhance vision, stability and endurance.<sup>[1]</sup> Green Dentistry is an approach to dentistry that combines dental practices and environmental conservation.<sup>[2]</sup>

**Components of green dentistry**

**A. Reduces Waste and Pollution:** Dental clinics generate a big number of biomedical waste products, including blood soaked materials, syringes etc. The waste should be properly disposed using color coding of waste categories.<sup>[3]</sup> The four procedures accountable for majority of the dental waste and contributing to pollution are:

1. Placement and Eviction of dental amalgam restorations.
2. Conventional X-ray systems.
3. Infection control methods including disposable barriers, sterilization items and toxic disinfectants.
4. Conventional vacuum saliva ejector systems

Prevention from mercury pollution can be achieved by the following ways<sup>[4]</sup>

- i. Usage of alternate substances like GIC, composite.
- ii. Incorporation of an amalgam separator in clinics.
- iii. Recycling waste amalgam.

Ways for preventing X-Ray waste pollution are<sup>[5]</sup>

- i. Shift to digital imaging.
- ii. Usage of non-chromium system developer cleaners.
- iii. Capture waste lead.
- iv. Filter used fixer.

**B. Saves water, Energy and Money**

Conservation is the mantra of future dentistry because it extends the life of our precious resources and in addition enables us to save money. We should make sure that when we leave the working premises next time, check and look for those ubiquitous blinking lights emanating from electrical equipment. It can include computers, intraoral cameras, television, or lights left on when no one is in the office. By turning off these items, we can conserve a lot of energy drawn by these items that are plugged into the grid, but not in use. An inspiring milestone in green dentistry's future is the present day instigation of energy- and water saving dental equipment.<sup>[2,6]</sup>

**C. Is hi-tech**

High-tech alterations play a key role in helping dental professionals achieve their targets for waste deduction and resource conservation. Digital technologies proffer premature diagnosis, preventive therapies, and education that aim to serve the needs of wellness lifestyle patients committed to maintaining long-term eudemonia and seeking to avoid unnecessary or expensive procedures.<sup>[6,7]</sup>

Here are some high-tech innovations that are part of dentistry's green future:

1. Digital imaging system.
2. CAD/CAM systems.
3. Steam sterilizers eliminating the use of chemicals.
4. Digital patient charting, scheduling, and billing.
5. Digital paperless patient communication system such as E-mail appointments, reminders, and saving staff time.
6. Use of website to promote and as a primary marketing tool.

7. Switch to electronic patient record format.
8. Use of oil-free compressors.

#### D. Supports a wellness lifestyle

Wellness lifestyle dentistry engages the extensive knowledge of dental professionals in assessing the health of periodontal tissue as a window to overall health. The so called lifestyle illnesses have been linked in scientific research to an out-of-balance immune response. The oral cavity is the window to the body's immune response.<sup>[6]</sup>

#### Benefits of green dentistry

Green dentistry is a whole - earth approach to tooth care that reduces the environmental impact of dentistry and creates a caring environment for patients. It is based on the model of four R's – Rethink, Reduce, Re-use and Recycle.<sup>[8]</sup> This can be achieved by following the use of these simple things:

- **Sparingly use of energy** - Dental procedures uses huge amount of electricity which can be reduced by using latest technologies such as motion sensors, turning off light and use of CFL in the clinics.
- **Sparingly use of water** - Wastage of water should be avoided by turning off the tap during washing hands.
- **Curtail radiation** - Usage of digital X-rays rather than conventional X-rays scales down the amount of radiation and the quality of the images will also be more improvised.
- **Reprocessing** - Many materials found in a dentist's clinic can be recycled, including paper cups, paper, magazines, general waste and cloths which helps to reduce costs as well as waste.
- **Applying technology** - Use of computers for the storage of data in relation to patient records will not only eliminate the paper usage but will be more accurate.

#### CONCLUSION

In simplest terms, green dentistry is an eco-friendly approach that is kinder to the planet and creates a caring environment for patients. By being on the forefront of sustainable practice, oral health professionals can make small changes that cumulatively, have a positive impact in the environment.

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