

"GREEN DENTISTRY...THE PRACTICE OF THE FUTURE"



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Dentistry is about white: the color of beautiful teeth, lab coats and cotton dental rolls. Then what is green dentistry? ...

If you've ever sat in the dentist's chair and wondered where all the latex gloves, chemicals, and x-ray films end up, or stopped to consider how much water and electricity the office uses, you aren't alone. Some dentists are starting to take off their protective eyewear and see the bigger picture.

Within the dental community, there has been a growing trend of providing patients with oral health and dental care using technologies, procedures and materials that promote environmental and planetary health. Referred to as **GREEN DENTISTRY OR ECO-DENTISTRY** - a term trademarked by the Eco-Dentistry Association (EDA) - this innovative brand of care aims to enhance the efficacy of treatment while reducing the amount of waste and pollution in the environment.

More and more dental practices are paying attention to their effects on Mother Earth. And they are finding that integrating environmental-friendly procedures into their offices is often better for the patient and even the other green the bottom line of the practice. So it is inevitable that green dentistry will have its impact in offices around the world.

The Green Dental Movement

The realization of the "Green Dentistry" idea stems back to the 5th European Dental Students Association (EDSA) Congress of Belgrade, Serbia, in March 2003, when the Greek delegation set the outline of the initiative and proposed the adoption of the project by the Assembly. The countries which have adopted this project are Croatia, Sweden, the Netherlands, UK and Greece.

Main domains:

- increase "environmental awareness" and sensitivity among the dental professionals;
- encouragement of procedures, regulations and policies compatible with the EU strategy for "sustainable development";
- production of electronic and printed informative material to address and communicate the information to the dental society, particularly towards dental students and young dentists;
- establishment of a network of cooperation, exchange information and opinions, proposals and innovations concerning the "Environmentally responsible dental Practice" in Europe and internationally.

Did you know...

Virtually all materials and medications used during dental practice are potentially hazardous and require special handling, treatment and disposal:

- dental amalgam
- unit waste water
- sharps/bloody instruments and tissues
- X-ray fluids and lead foils
- cleaning solutions and disinfectants

The dentist has the responsibility to establish and maintain an "environmentally friendly" dental practice, towards:

- the patients
- those working in the clinic
- natural environment /regulated handling of solid materials, liquid waste and hazardous vapors, recycling, energy consumption reduction, etc.

STEPS TO GREEN YOUR DENTAL ROUTINE

Simple steps may be taken to turn your practice green by making it more environmentally friendly:

1. Correct disposal of bio-medical waste: Virtually all materials and medications used in the dental practice are potentially hazardous and require special handling, treatment & disposal.
2. Reduce or eliminate the use of toxic substances:
 - Mercury bearing silver amalgams
 - Instead of traditional X-Rays, the practice uses digital x-rays that emit close to 90% lower radiation
 - In place of X-Ray films, the practice uses Radiovisiography (RVG) equipment that requires no chemicals for processing of x-ray films
 - The entire water supply to the clinic needs to be filtered through a water softener so as to eliminate calcium and other deposits leading to an increased longevity of instruments and a reduction in waste
 - Lighting used in the entire clinic needs to be changed to more energy efficient CFL lights, as well as ensure that all equipment including the air filtration system as well as the air-conditioning units inside the practice are compliant with international energy Efficiency standards.

Recommended Management of Dental Clinic Waste Disposal:

1. Paper and other office waste - Only print what is essential and recycle as much of the printed materials as possible
2. Gloves, Face Masks, Caps, Bibs Separate from general waste and discard after each use in a bio-medical waste bin as infectious waste
3. Blood Discharge to sewer
4. Bloody materials from cotton dressings, human parts, swabs/gauze, used impression Material Dispose as infectious waste
5. Mercury Treat as hazardous waste and dispose in carefully marked bio-medical waste
6. Fixer & Developer from X-Ray film processing Count as hazardous waste and Discharge remainder of waste to sewer
7. Lead foils from X-Ray films Send to local metal re-claimer for recycling
8. Needles/syringes/sharps Store in puncture resistant containers and dispose in specially marked bio-medical waste bins

A little care at the dental practice can go a long way in protecting the environment for future generations and also help fight the spread of highly infectious diseases such as Hepatitis and AIDS.

The impact of this dental revolution has not reached India as yet. Practitioners still need to be aware as more dentists join the green dentistry movement and help make India a cleaner and a healthier place.

The Eco-Dentistry Association offers practitioners easy and cost-effective information for going green. For tips on how practitioners can use easy and cost-effective tips relating to the four areas of green dentistry, visit their website at www.ecodentistry.org.

REFERENCES:

1. Balfry G. Green dentistry. *Br Dent J*. 2001 Oct 13;191(7):356.
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