

**Green today for a safer tomorrow: A short communication on practising eco-friendly dentistry**

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**Abstract**

Green dentistry or Eco-friendly dentistry as we may call it includes all the minor and major steps one can take in day to day practice which will help reduce the harmful effects that we incur upon nature, mostly unintentional. By practicing green dentistry we are reducing the amount of waste that is produced and thereby contributing to a cleaner and healthier environment. A number of materials which we use like plastic impression trays, plastic syringes, plastic glasses and other disposable materials lead to accumulation of harmful waste which are not biodegradable. These things might not seem much when we talk about you or me, but where thousands of clinics and hospitals are concerned, it's tons of waste. By going green, we not only are helping ourselves, as this also helps to reduce cost such as using autoclavable stainless steel glass instead of disposable glasses and many more. So the aim of my paper is to shed some light on the importance of being eco-friendly in every facet of our lives as well as to promote environmental awareness and sustainability to patients.

**Keywords:** Eco friendly dentistry, Green dentistry, environment green, dental waste.

**Introduction**

We only get one chance at everything'. But is it always true? Our planet keeps giving us more & more chances to save it, to save ourselves and it all begins at an individual level; at our level. So, what can we as pediatric dentist do to contribute to sustain & preserve our environment? That's where green dentistry comes into picture. Green dentistry or eco-friendly dentistry as we may call it includes all the minor and major steps one can take in our day to day practice which will help reduce the harmful effects that we incur upon nature, mostly unintentional. Green dentistry is an emerging notion in dental practice. The colour green itself denotes healing. It is an advanced approach in dentistry which will reduce the burden on environment due to dental practices. Eco friendly approaches not only meets the need of thousands of patients but also beneficial for community health all-around the globe. Routinely a large number of biomedical wastes are generated like sharps, blood soaked cottons,

disposables glass, suction tip, plastic pouches, RVG sensor slip, latex gloves, etc. chemical wastes like x ray developer, fixer solutions, hazardous wastes of mercury, lead etc. Hence management of these wastes are an important concern for the dental health professionals. Besides being environment friendly it also saves energy, money and time by means of waste reduction thereby, reducing the hazards of rapid urbanization and protecting the humanity as well.

So this paper provides an insightful knowledge about practicing green dentistry by reducing our carbon footprint on nature and to ensure a safer future for our coming generation.

#### Concept of Rethink, Recycle, Reuse And Reduce

Rethink is the foremost step in practicing an environmental friendly practice followed by recycling of waste, however the element REDUCE and RESUSE is far more effective than the other two aspects respectively.

- **Rethink:** changing mindset is the best strategy for reducing the burden on Mother Nature. Implementation of simple changes is the initial step in making practice more eco-friendly. Example, reducing water and energy consumptions are some of the strategies that can be considered.
- **Recycle:** recycling is a feasible way of dental waste management. Some of the dental waste recycling suggestions are:
  - a) Waste instrument can be recycled into an industrial metal
  - b) Sharp wastes can turn into building wastes
  - c) Recycling the papers, copy through a shredding device.
- **Reuse:** helps in expanding the life-cycle of items. Dental materials can be reused in the following ways:
  - a) By replacing the single use items to stainless steel ones

- b) Switching to clothe sterilization pouches, drapes, lab coats instead os plastic ones.
- c) Providing paper cups for mouth rinsing
- d) Wearing reusable face shields.

- **Reduce:** minimization of usage of earth resources can help in decreasing the environmental load. For example:

- a) Ordering of consumables in bulk to reduce number of shipping boxes
- b) Switching to digital radiography to reduce paper wastage
- c) Double-sided printing should be encouraged to reduce printer waste

By successful implementation of these 4 footsteps dental practices can turn into a more sustainable one.

#### Recommendation for going green in dental practice

Focusing on how to make dental clinic more eco-friendly by adding or changing some of the elements which we people are using in our daily practice.

- Starting with the interiors choosing concrete as an alternative to bricks as it improves thermal efficacy by reducing heating or cooling load.
- Linoleum flooring can be done because of its additive property of being hypoallergenic, biodegradable & contains no formaldehyde & releases no toxic volatile organic compounds in air.
- Use of eco-friendly non-toxic paint instead of traditional paints that contribute to carbon footprint
- Also presence of live green plants in operatory area increases oxygenation.
- Conservation of energy by use of fluorescent light bulbs.

#### For the operatory area

- Oil-free compressors can be used
- HEPA type air purifier or in-operatory air purifiers can be used to remove particulate from air.

- The use of digital radiography as an alternative to traditional film-based x-rays, eliminating the need for lead foil & silver containing radiographic fixer solution should be favoured.
  - Instead of disposable irrigation syringe, plastic impression trays, suction tips the use of reusable stainless steel glasses, suction tips, impression trays being sterilized in the same manner can be used.
  - Often all that is needed is a little support in one form or other, by motivating & educating the patient to turn off water while brushing their teeth, saves plenty of water per day per person
  - Educating them to stop wasting energy for which we pay but do not use.
  - Dentist should make sure that before leaving the working premise next time, check & look for those equipment from which light is blinking like computers, intraoral cameras or lights left on when no one is in clinic.
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### **Conclusion**

We cannot have healthy people on a sick planet, so by reducing our carbon footprint on nature is a way to ensure a safer future for our coming generation. We are as much responsible for their future as we are for their treatment. Let's become a part of dentistry's clean, green and profitable future.

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