An Insight into Green Dentistry

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ABSTRACT

Eco-friendly dentistry is using a sustainable approach to encourage dentists to implement new strategies to try and reduce the energy being consumed and a large amount of waste being produced in the process of treatment. Dentists employ a variety of materials and equipment in practice that pose potential challenges to the environment. Eco dentistry is an answer to the problem. The dentist should set up an example for the society by implementing ‘green’ initiatives to lessen the hazardous impact on the environment. This review deals with the practice of dentistry in such a manner that it is neither hazardous to the environment nor to the patients.

KEYWORDS: Eco-Friendly; Green Dentistry; Recycle; Reduce; Rethink; Reuse

INTRODUCTION

Eco-friendly dentistry is an ongoing progression in the field of dentistry. It is a piece of development towards environmentally sustainable healthcare. The key ideas of eco dentistry otherwise called green dental practice incorporate the preservation of water and energy, utilization of non-poisonous items, a decrease of waste and disposal of hazardous toxins that contrarily affect patients and the environment. Along with different other fields, Dentistry also contributes to environmental change and pollution. However, unwanted scrap generated by the dentists is very low, but the aggregated waste that is produced can have noticeable harmful impact on the environment. The Canadian Dental Association, in the year 2007 clarified the term “eco-friendly dentistry” as the branch that can limit the industry’s harmful and undesirable effect on the environment by promoting environmental awareness and sustainability to patients.

Eco dentistry is another methodology towards dentistry that bolsters dental practices by constraining the utilization of resources and waste. Eco dentistry too attempts to expand the soundness of patients by restricting the chemical used in the dental clinics and promotes the utilization of low volatile items. The workplace of Eco-friendly dentist considers different perspectives, for example, the volume of patients, dental assets utilization and use of electricity, water, and chemicals. By adaptation of expertise ways and utilization of smart judgment we can contribute towards dentistry’s clean, green and highly beneficial future.

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HOW TO PRACTICE GREEN DENTISTRY?

Green dentistry can be practiced by adopting the following ways:

- Using digital dental technology: avoid using paper is truly considered a revolutionary approach. Instead of paper computers should be used to maintain all records this not only saves time but it becomes easy to find the records when required.

- Management of amalgam toxicity: instead of manual manipulations pre-capsulated amalgam should be used and after that for recycling capsules should be recapped and stored in closed containers. To reduce the vapor released during the removal of old amalgam restorations, rubber dams, high volume evacuation, and water cooling equipment should be used. An important environmental initiative a dentist can do is to install an amalgam separator.

- Using hospital-grade, reusable sterilization items, and patient barriers free from plastic: Disposable syringes, bottles, surgical gloves are the various forms of plastic used in the dental clinic. These all are nonbiodegradable in nature and pose a great threat to the environment. Plastics produce Dioxin and furan, which are carcinogens. Hence biodegradable products instead of these should be used.

THE FOUR Rs OF GREEN DENTISTRY

Implementation of these four steps by dental professionals is beginning to transform the medical industry to a more livable one. Pockrass et al. discussed the four R’s of eco-friendly dentistry, i.e., Rethink, Reduce, Reuse, and Recycle. The Health experts are attempting their best to manage the waste administration to make our planet well by presenting the 4 R’s- Re think, Reduce, Reuse, and Recycle. Execution of these four stages by dental experts is starting to change the medical industry to a progressively livable one. Pockrass et al. talked about the four R’s of eco-friendly dentistry, i.e., Rethink, Reduce, Reuse, and Recycle.

Rethink: Redevelopment of an attitude is basic to settle on each choice. This requires an adjustment during the process of thinking. Environmentalism or ecological
rights is a wide theory, belief system, and social development with respect to worries for environmental defense and improvement of the soundness of the earth, especially as the measure for this well-being looks to fuse the worries of non-human components. It is an imperative thing to be considered. The underlying step is Rethinking-the manner in which those dental specialist workplaces are run. Mobile dental van ought to be considered as it is an attractive method of clinical practice in an eccentric setup for the effort programs. This will be the initial step to change the recent practice. Some essential and imperative changes can be actualized, similar to the decrease in energy and water utilization.

Reduce: In order to diminish the weight on the world's assets, individuals must decrease their utilization of them. Bundling represents 33% of trash. Purchase of items with negligible packaging and utilization of reusable plastic container can lessen general waste production.

Instances of dental office chances to reduce:

- Purchase frequently utilized things in mass, for example, prophylactic paste, masks, hand gloves, and so forth.
- Request supply organizations consolidate orders to eliminate shipping boxes.
- Set printers for two-fold sided printing. Single-spaced printing and utilization of the two sides of pages can diminish the measure of paper utilized in the dental office.
- Implement computerized technology for imaging impressions, malignant growth screening, graphing, and marketing.
- Use steam disinfection dispensing with the utilization of synthetic substances.

Reuse: This step facilitates us to prolong the utilization of things. To “re-use” is to utilize an article over again after it is already used one time. This move supports the all-encompassing utilization of a thing; accordingly debarring the thing from adding to the loss in the landfills. Handing over a revitalizing goal for an article extends its life and reduces the excess baggage on the landfills. Handing over a revitalizing goal for an article extends its life and reduces the excess baggage on the landfills. By utilizing the things once more, it removes the tribulation on the normal assets by diminishing the requirement for extractions, alongside abridging the measure of vitality required for the generation of new items. Expanding the life cycle of a thing by re-utilizing, it takes out the need to transport it away. Plastic, single-use things can be supplanted with stainless steel ones that can be sanitized and reused for a considerable length of time, similar to impression plates. Reuse of materials spares the assets and gives the material new life by utilizing it a second time in another way. Scarcely any approaches to execute "re-utilizing" in the dental office are:

- Reusable working room cotton towels set up.
- Disposable plastic or paper patient drapes.
- As backing disposable suction tips.
- Reusable stainless steel high-volume and low-volume, suction tips.
- Instead of the dispensable plastic syringe, use a reusable glass irrigation syringe.
- Biodegradable dispensable containers rather than regular paper mugs, without chlorine, high postconsumer reused paper.
- Items instead of customary paper items and whenever appropriate; re-use papers. Utilized papers can be destroyed and used again as bundling materials.

Recycle: Recycling ought to be our final option, and we have to complete a vastly improved activity recycling everything that we can. Recycling is a reasonable method to diminish the overall contamination of the environment. The technique of transferring waste materials into reusable items are recycling. It diminishes the depletion of conceivably commodious materials, new crude materials, energy consumption, air pollution, and water pollution. This lowers the demand for conventional waste disposal system. This also helps to reduce the emission of harmful greenhouse gasses. Three bolts form part of the recycling triangle; wherein, the primary bolt signifies the accumulation of the things to be recycled; the second bolt speaks to "re-fabricating" for example making a spic and span out of recycled items; the third bolt indicates offering for sale items created from recycled materials.

In the situation of eco-friendly dentistry, by reconsidering the decisions we make, decreasing the utilization, and using again whatever we can, there will be less for us to recycle. In case situation comes down to disposing of a thing into the garbage or recycling it, pick the last at whatever point conceivable. Attributable to the measurements given by U.S. Natural Protection Agency, in excess of 75 percent of what we discard could be recycled, and a majority of the material we right now reuse is redirected from our landfills and incinerators. Different proportions of recycling that can be taken in a dental office are as per the following:

- Gather and store all types of amalgam and send it to an affirmed recycler for reprocessing the mercury.
- Build up an amalgam separator which keeps the mercury-containing material out of the water framework.
- Recycle fixer and designer arrangements and the lead foils from x-beam films in the event that regardless one uses traditional x-ray preparing framework.
- Whenever possible use recycled materials.
- Use rechargeable batteries instead of disposable batteries.
- A program named Environdent presented by HuFriedy 12 years back causes the professional to recycle their old hand instruments and to additionally support the planet; they give the specialists free instruments in exchange.
- Independently recycle the paper and plastic divisions of autoclaved packs by using the community’s existing recycling program.
**CONCLUSION**

Green dentistry is a cutting edge approach that lessens the ecological effect of dental practice and envelops a safe model for dentistry that underpins and looks after health. Green dentistry addresses a large number of issues, and enables dental experts to ensure planetary and community health, just as the financial soundness of their practices. As health professionals, we ought to be worried about advancing human well-being and prosperity as well as that of nature. Being ‘green’ in dental practice will improve and make one feel about oneself and what we are accomplishing for mankind.

**REFERENCES**


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