

Eco-Friendly Dentistry

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We read in newspapers and also come across hoardings about saving water, saving trees, saving electricity. Even on our Colgate Tooth paste message is for saving water. Every one is trying to do their best to save our Earth from GLOBAL WARMING. Medical and Dental professionals play a vital role for following Green approach to prevent hazards to the environment. So let us know about Eco-friendly or Green Dentistry.

Dentists incorporate a variety of materials and equipments in practice, some of the materials which are still being used, causes hazards for the environment. It is Dentists responsibility to take care of patients, staffs health and protect the environment. Utmost precautions should be taken to prevent any harmful chemicals or materials from polluting the environment and in-turn causing "GLOBAL WARMING"

The amount of waste generated by Dental and Medical practitioners around the world is huge and staggering. Amount of water and electric loss is uncontrollable. Taking into consideration wastage of valuable natural resources and amount of unhygienic waste produced, which is causing adverse effects on the environment, the ECO-Dentistry [Green Dentistry] Association has adopted the ethical measures. They promote advancement and enhance efficiency and effectiveness in dental procedures through the use of technology that minimizes the pollution and waste that may bring to the environment. It values technologicval innovations in Dentistry that does not cause environmental hazard while maintaining the patients good oral hygiene.² With the Green Dentistry, the medical professionals use biodegradable yet high quality materials such as in sterilisation, disinfectants, and germicidal components. It focuses on the minimization of hazardous wastes and toxic chemical vapor and solutions into the water system. It uses metal-free materials such as using Composite resins with adhesives, lumineers, crowns, and porcelain veneers. This means that the silver amalgam fillings are avoided to prevent metal waste and to avoid these materials from polluting water supply and water systems.²

Green Dentistry has been defined by the Eco Dentistry Association as a ' High-tech approach that reduces the environmental impact of Dental practices and encompasses a service model for Dentistry that supports and maintains wellness.³

The concept of 'Green thinking' was introduced in the Dental profession with

opening of the very first Dental practice to be officially certified 'Green' in California in the year 2003.⁴

Dentistry can lessen the combined environmental impact by utilising the Four 'R's of Going Green namely 'Reducing, Reusing, Recycling, and Rethinking'.⁵

The Four 'R's of Going Green can be easily applied to the Dental Practice.⁵

Benefits-⁶

1. Reduces waste and pollution
2. Saves energy, water and money
3. Incorporates high-tech innovations
4. It is wellness based

Reduce waste and pollution-⁷ To reduce waste and pollution there are ways that you can be part of Dentistry's Green future by reducing waste and pollution:

1. Use of Digital imaging.
2. Installing an Amalgam separator.
3. Use of reusable sterilisation items and patient barriers free from plastic.
4. Recycle old hand instruments.
5. Use nontoxic, biodegradable, approved surface disinfectants and cleaners.
6. Buying in bulk the materials which are required, it reduces cost.
7. Use reusable stainless steel or compostable impression trays
8. Clean your water lines regularly, using biodegradable or enzymatic cleaners, never chlorine bleach, which can release airborne mercury in the office.
9. Dental dealers should be adviced to reduce packing and to combine orders to reduce postal cost.
10. Eliminate toxic cold sterilisation solutions, like those containing glutaraldehyde.

Save energy, water, money- To save energy, water, money there are ways.

1. Install Energy star-rated printers, computers.
2. Use of LED lights.
3. Install Distilled water plant.
4. Ensure on-off switch.
5. Use of waterless vaccum system.
6. Install LED 'Exit' signs and other emergency indicators.
7. Use of tooth-coloured restorative materials.
8. Use of waterless hand sanitisers.
9. Install motion sensors to automatically turn off lights.

Green Dentistry is High-Tech Dentistry- High-tech innovations

1. Use of Digital imaging.
2. Use of CAD/CAM systems.
3. Use of In-office sharp disposal

equipment (Needle breaking equipment).

4. Use of Steam sterilisers that eliminate use of chemicals.
5. Install Digital patient charting.
6. Install Digital patient communications, like e-mail appointment reminders, reducing paper and saving staffs time. (paperless Dentistry).
7. Use of Diode laser.
8. Use of a website as a primary marketing tool.
9. Use of Electronic media eg. iPad to record patient intake forms.
10. Use of Oil-free compressors.

Wellness- based Dentistry- Various Wellness-based modalities that are part of Green Dentistry

1. Use of Laser diagnostic tools that allow you to see caries earlier than with naked eyes.
2. Use of Oral Cancer Diagnostics.
3. Laser treatment of periodontal diseases.
4. Aromatherapy, to help dental patients relax naturally.
5. Hand or foot massage to relax the patients.
6. Salivary testing to determine genetic predisposition to periodontal disease and identify pathogenic bacteria.
7. Live, green plants in the operator, increasing oxygenation.
8. Use of Germicidal, in operator air purifiers to remove particulates from the air.
9. Nutritional supplements, which are proven to support periodontal health.
10. Homeopathic modalities like Arnica, which promote reduced swelling and bruising after dental procedures, with no drug reaction.

Conclusion

Green Dentistry is an approach to Dentistry that combines Dentistry and environmental conservation. Green dental practices use nontoxic products, reduce waste, and reduce the carbon footprint. Not only are Green Dentistry practices better for the environment, but they are also safer for patients and staff.

Green Dentistry, through green design and operations, protects the immediate health of patients, team members, and the health of the surrounding community. It also protects the health of the global community and natural resources, as well as the financial health of their practices.

References

References are available on request at editor@healtalkht.com

