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# THE DENTCARE

Your Monthly Health Care Magazine

*Brightening smile the world over*

**Eat For Great  
Glowing Skin**

Dental Manifestations of  
**Pregnancy**

**Crisis Alarm:  
Water as Life**

**GREEN**  
Technology  
Boon for the  
Future





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February was Fabulous!!! It is time now to March on....**Dear Reader,**

Dentist's Day on March 06 is a moment to reflect upon the future of our profession. It truly deserves genuine introspection and sustained pursuit of excellence from every quarter. Dental entrepreneurship could be a need of the hour.

The Dentcare applauds the entire dental fraternity on this special occasion and prays for a future that would keep us together in brightening the smiles of many, world over.

Your skin too needs its share of glow. GrEAT news lies for you inside!!!

Keep an eye on Myopia. Let not your minds turn myopic either, when it comes to preserving water or in utilising green technology.

Good health is true wealth. Address Halitosis, break the myth on dental scaling, learn more on the dental manifestations of pregnancy, get rid of snoring and leave your headaches behind. This edition tells you how.

We take pride in honouring our women, not just on International Women's Day, but every day. Our planet would have been bereft without them. The time is ripe to stand Bold for Change in the light of the hardships they are being subjected to, today.

Let nature nurture your little ones, even as we suggest small measures for them to beat the exam heat. Our warm wishes for their continued success in life and always...

Yours truly,

**Prof. (Dr.) George P. John**

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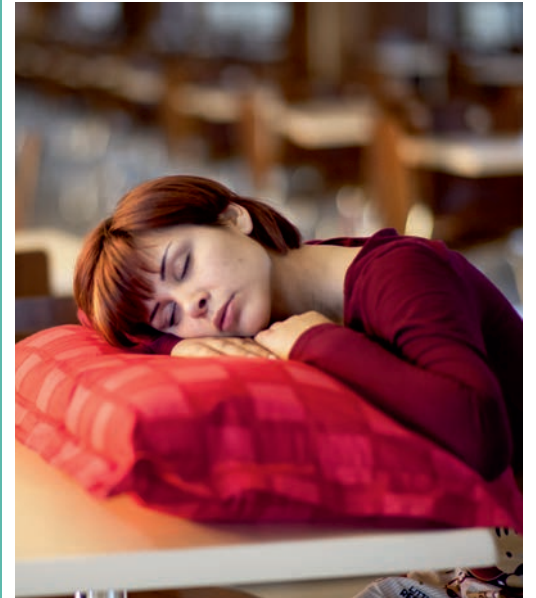
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# EAT FOR GREAT GLOWING SKIN



**Mrs. Soly James**  
Consultant Nutritionist  
Mumbai, Maharashtra, India

Remember how our grand mothers made skin care products by concocting home remedies that have no side effects and free from long term risks? Simple ingredients like kasturi manjal with milk cream, chandan paste and by taking a whole body massage with pure coconut oil or with extracts from some medicated leaves were used those days.

As far as diet was concerned it was also simple, a variety of fruits and green leafy vegetables from own kitchen garden, hand pounded brown rice, cheap fish like sardines, mackerel etc. Well, to tell you honestly this is the best way to take care of our skin.

You have heard skincare experts very often suggesting certain face packs to make the skin glow, like orange peel and yoghurt face pack and also walnut powder, lemon juice, certain fruits like papaya, banana, cucumber, pumpkin seeds, hazel nut and tomatoes

based face packs to brighten the skin. Have you ever wondered what these food items are doing on your skin?

Remember, when it comes to healthy-looking skin, what you put in your body may matter more than what you put on it.

A healthy skin reflects how healthy you are on the inside. So what can you do to get glowing skin? We all know we should eat healthy, exercise regularly, de-stress and of course, follow a regular skincare routine.

Your skin needs a boost with proper nourishment from within to look fresh and glowing. For this, you need to eat the right balance of foods to feed your skin with vital nutrients to stay soft, firm, radiant and blemish-free.

Though most of the nutrients are required, antioxidants and certain other vitamins play a major role in skin care. Let us see what exactly are antioxidants? How do they benefit our skin?

In simple terms, we can say that these chemicals when present in our body can prevent or slow down cell damage and provide a healthy skin.

How can our skin get damaged or aged? By various reasons, depending on a variety of factors like our life style, diet, age,

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**Antioxidants are molecules that can interact with or scavenge free radicals and terminate the chain reaction before vital molecules are damaged as well as inhibit further damage to our body**

heredity and other personal habits, by harsh weather and the sun (UV rays). Other factors that contribute to aging of our skin include stress, daily facial movements and obesity.

When the body gets exposed to a wrong influence, it gets damaged (by oxidative stress) and more harmful free radicals are formed in our body. After the formation, these free reactive radicals start a chain reaction which can cause damage or death to a cell.

Antioxidants are molecules that can interact with or scavenge free radicals and terminate the chain reaction before vital molecules are damaged as well as inhibit further damage to our body.

**Benefits of Antioxidants in Skin Care**

Antioxidants protect the skin by controlling the production of free radicals, which is the main reason for damage or death of a cell. Antioxidants work magically in skincare products by reducing the signs of aging.

Next time when you buy a beauty product, read carefully. The advertisement might be telling you, “rich in antioxidants, rich in Vitamin E and C, green tea based products, walnut based products etc.” All these are indirectly telling you one thing that these beauty products are “nourished with nutrients.”

Undoubtedly, these products are good but it is temporary. Even when you age, a youthful skin can be achieved by proper nourishment. As the old say, “you are what you eat.” What you put in your mouth will reflect on your body and skin.

**Best Anti-oxidants for Skin**

The natural antioxidants like vitamin C, E, Beta carotene (Vitamin A) play an important role in neutralizing the harmful

effects of free radicals and adding a youthful glow to skin. It also helps to reduce wrinkles, skin thickness / elasticity, break down of collagen and sun tan. It also reduces production of melanin which is responsible for skin color.

**Vitamin C**

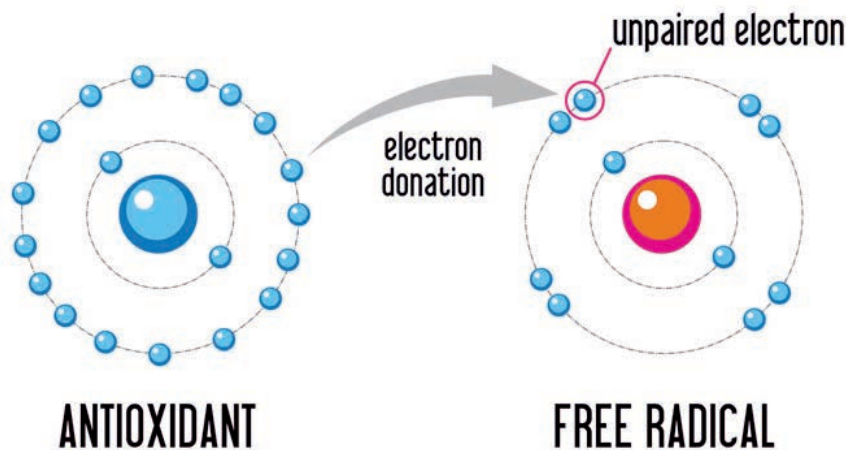
It ensures the production of collagen, helps the growth of cells and blood vessels and aids immensely to maintain the firmness and strength of the skin. Food items rich in this vitamin include strawberries, pineapple, oranges, sweet lime, lemon, guava, grapefruit, gooseberry etc.



High Vitamin C foods include dark leafy greens, gooseberry, bell peppers, kiwifruit, guava, broccoli, berries, citrus fruits (oranges, sweet lime, lemon and grapefruit), tomatoes, peas, and papayas.

**Vitamin E**

It helps to protect and repair our skin and also it helps to neutralize the oxidant effect of free radicals damaging collagen. These free radicals are the main reason of wrinkles, fine lines and skin dryness. It also acts as an active sun blocker, which protects skin cells from UV (Ultra Violet)







damage, while also keeping it soft and supple.

A glowing skin diet must include almonds, walnuts, green leafy vegetables, avocado, peanuts, hazel nuts, wheat germ, sunflower seeds and pumpkin seeds that are rich in Vitamin E.

#### **Vitamin A**

It is helpful for skin conditions including acne, eczema, psoriasis, cold sores, wounds, burns, sunburn, skin scaling and pigmentation. Dark green leafy vegetables (spinach, amaranth, lettuce and other greens), yellow and orange colored fruits and vegetables (papaya, mangoes, pumpkin, carrots, tomatoes etc.) can be taken. Moreover, leafy veggies are good sources of zinc that build up collagen and iron, deficiency of which aggravate dark circles under the eyes.

#### **Vitamin B Complex**

A group of water soluble vitamins, collectively known as B complex vitamins increases beauty by improving the state of our hair, skin, and nails. Though each of these vitamins have different roles to play, collectively, these vitamins help

**A glowing skin diet must include almonds, walnuts, green leafy vegetables, avocado, peanuts, hazel nuts, wheat germ, sunflower seeds and pumpkin seeds that are rich in Vitamin E**

to regulate our skin's pigment production, prevents hyperpigmentation, ensures normal functioning and formation of the skin and also aids in retaining moisture. Best food for glowing skin that is rich in Vitamin B include eggs, liver, milk, whole cereals, pulses and beans.

#### **Vitamin K**

The glow on your face might go waste if you have dark circles or puffiness under your eyes. There is scientific evidence that vitamin K helps reverse dark circles under the eyes. Apart from leafy greens, you can get dietary vitamin K from foods such as eggs, liver, milk, cheese, brown rice, pickled cucumber, cabbage, prunes, mulberry, blueberry, raspberry, pear and even dry roasted cashew.

#### **Green Tea polyphenols**

They exert sun damage protection from damaging free radicals and lowers inflammation by blocking UV rays. Green Tea polyphenols reduces the development of some signs of aging because of their antioxidant and anti-inflammatory properties.

#### **Coenzyme Q10**

It helps to neutralize harmful free radicals that are one of the main causes of aging. It enhances the ability to produce collagen, elastin and other important skin molecules. CoQ10 is naturally found in high levels in organ meats such as liver, kidney, and heart, as well as in beef, sardines, and

mackerel. Vegetable sources of CoQ10 include spinach, broccoli and cauliflower.

#### **Resveratrol**

Resveratrol's potent anti oxidant effects can be divided into two distinct levels – by preventing the formation of free radicals and by scavenging existing free radicals. It has therapeutic uses in age related cognitive dysfunction, skin rejuvenation and also stimulates the growth of nerves. The best source is red wine. Other food sources are peanuts, pistachios, grapes, white wine, blueberries, cranberries, even cocoa and dark chocolate.

#### **Flavanols**

Dark chocolate and Cocoa beans fresh from the tree are exceptionally rich in flavanols. However, antioxidant capacity is greatly reduced due to manufacturing processes in the chocolates that we eat.



Despite the loss, 'regular consumption of dark chocolate rich in flavanols is effective at protecting human skin from harmful UV effects,' revealed a study. Note that other chocolates do not have such effect. There is a risk of weight gain with over-consumption of chocolate, so it should be consumed in limited quantity.

### Hydration

Drink plenty of water and eat water rich food items such as watermelon, grapefruit, cucumber and fresh vegetable salads as hydration is essential for healthy glowing face and skin. If the outermost layer of the skin (epidermis) does not contain enough water, skin will lose elasticity and feel rough. Additionally, these foods are rich in anti-oxidants and fiber required for a glowing healthy skin.

### Fatty fish

Salmon, sardines, mackerel, tuna etc. contain omega-3 fatty acids that are essential for skin health and elasticity. These fatty acids prevent water loss from the epidermis, thus preventing the skin from drying. They are also known to protect against the damaging effects of sunlight (photoaging, skin wrinkling, skin drying and hypersensitivity) by suppressing the molecules causing inflammation. One should consume four to five servings of oily fish per week in order to treat the condition and for those who cannot eat fish oil supplements must be used instead.

Now that you know the easily available sources of natural antioxidants for a beautiful glowing skin, include them in

your diet. If oily food can give you pimples and acne, healthy food can give you a beautiful and glowing skin. These food works on all types of skin, from oily to normal. So simply, add these foods to your diet and you will have glowing skin.

In a nutshell,

- ⦿ Add lots of seasonally and easily available fruits and green leafy veggies in your diet.
- ⦿ Consume whole grains and pulses instead of refined products.
- ⦿ Eat yellow and orange colored fruits and veggies and dark green colored leafy vegetables at least 3-4 times / week.
- ⦿ Include protein rich food items like fish, lean meats and eggs. Protein foods like these supply the amino acids (building blocks) to make collagen, which keeps your skin strong.
- ⦿ Include salmon, tuna, sardines and mackerel 1-2 times / week. Consume egg 3-4 times / week as it has biotin which is the essential vitamin to ward off dry skin.
- ⦿ Eat dark chocolate, a couple of squares will rev up skin texture and UV resistance. Eat dark chocolate in limited quantity.
- ⦿ Hydrate your body by drinking minimum 8-10 glasses of water daily and include 3-4 cups of green tea.
- ⦿ Have beetroot or carrot juice daily. You can add half lime

juice too to make it more palatable and nutritious.

- ⦿ Though potato peel and fresh juice are considered as one of the best remedy as a natural bleaching agent and also to get rid of dead skin cells, sunburns, dark spots, blemishes and dark circles, eating potatoes are not going to have same effect on your skin.
- ⦿ Packed with healthy fats, nuts like walnuts, hazelnuts and almonds, as well as seeds like chia and flaxseed help to keep us well-oiled. Include flax seeds (2-3 tsp / day).

### What to avoid...

**Sugar**, refined carbs (refers to white versions of cakes, biscuits, bread and pasta, as well as fizzy drinks) have an ageing effect on the skin. Too much sugar in the diet damages skin cells and affects collagen production.

- **Bad fats**, especially bad are trans fats (dalda, vanaspati) found in pastries, cakes and processed ready meals and also try to avoid reused oils.
- **Alcohol and smoking**, damages not only skin but our overall health.

A famous quote says, "Aging is a fact of life. Looking your age is not."



# CDE Programme on Clear Aligners

conducted by IDA Kochi Branch,

sponsored by DentCare

@ Marriot Hotel, Kochi

on 5<sup>th</sup> March 2017



The event was formally inaugurated by Dr. Alias Thomas (IDA, Past National President) in the presence of Dr. Anjana G. (President, IDA Kochi Branch), Dr. Balu Soman (Secretary, IDA Kochi Branch), Dr. Prasanth Pratap (CDE Convener), Dr. Sam Paul (DentCare Clear Aligner Advisor), Invited Guests & DentCare Team



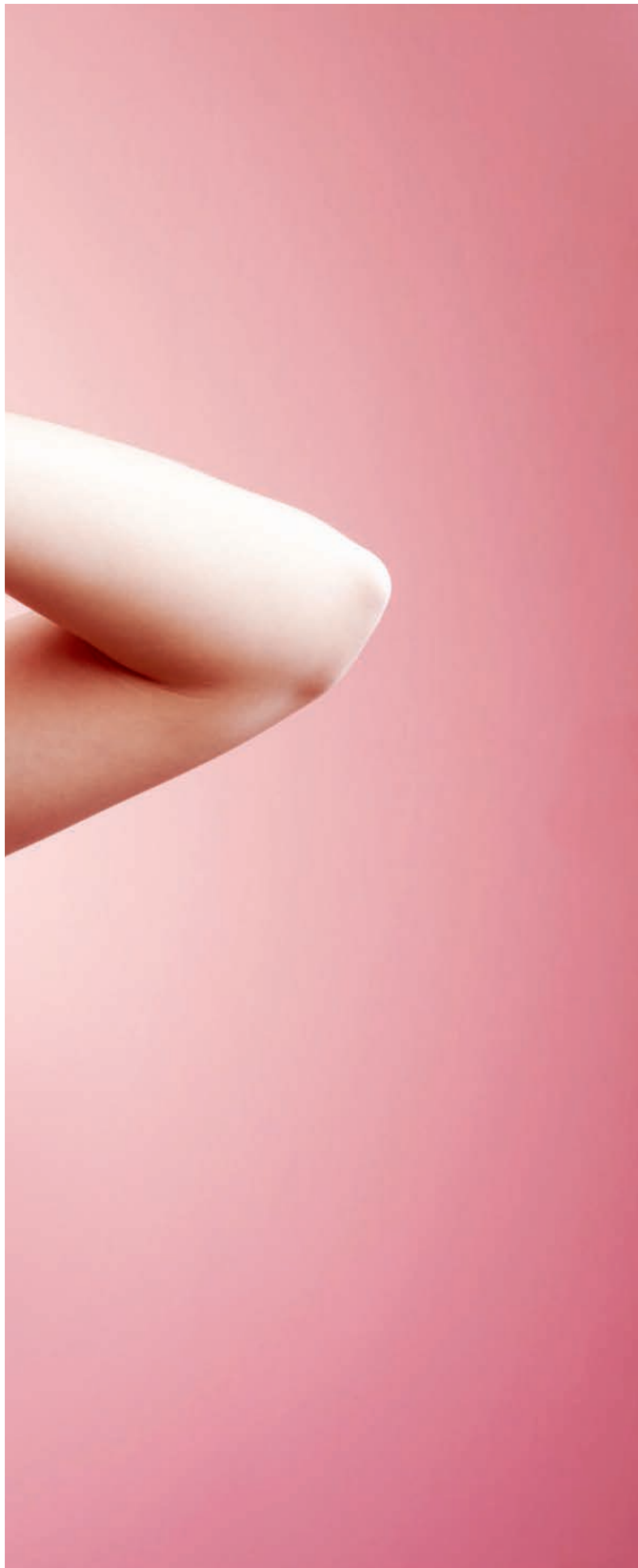
Lecture & Hands-on by Dr. Tariq Ansari





# HALITOSIS

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Bad breath or Halitosis is a major problem affecting a large group of people in the world. It is the third frequent reason after dental decay and gingivitis for people to seek dental care. Many people are in fact not aware that they are suffering from this problem. Bad breath was found to be one of the reasons for divorce among the community.

There are many intra oral and extra oral reasons for the occurrence of bad breath:

- ⊙ Tooth decay
- ⊙ Deposits of food debris over teeth / tongue
- ⊙ Gum disease
- ⊙ Smoking
- ⊙ Chewing tobacco
- ⊙ Alcohol
- ⊙ Sinusitis
- ⊙ Gastric problems
- ⊙ Liver disorders
- ⊙ Kidney disorders
- ⊙ Consuming diet containing garlic and onion
- ⊙ Lung infections
- ⊙ Diabetes
- ⊙ Oral infections
- ⊙ Not cleaning removable dentures
- ⊙ Dry mouth



**Dr. Benley George**  
Vice Principal



**Dr. Minimol K. Johny**  
Senior Lecturer  
Department of Conservative  
Dentistry and Endodontics

Pushpagiri College of Dental Sciences  
Thiruvalla, Kerala, India

### How do you know that you are suffering from bad breath?

1. If you find that any of your friends or relatives are moving away from you during a conversation with them, it suggests that your bad breath was the reason for them to avoid you.

2. Take an unwaxed, unscented dental floss and floss your upper or lower back teeth and wait for 30 seconds. Smell the floss and if you feel it has a bad odour it may indicate that you are suffering from bad breath.

3. Halimeter is a device which has been used for detection of bad breath through the detection of volatile sulphur compounds in the oral cavity. A dentist can identify bad breath through this device.

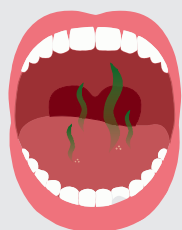
Recently a new device Oral Chroma, a portable gas chromatograph has been in use for the detection of bad breath. This device helps in distinguishing between intra-oral halitosis and extra-oral halitosis.



### Treatment and Prevention

It is very important to identify the cause of bad breath. The treatment depends upon the cause of the problem which should be rectified at the earliest.

1. Consult your dentist once in 6 months.
2. Undergo a scaling of teeth once in 6 months.
3. Brush your teeth using fluoride toothpaste twice a day.
4. Never forget to clean your tongue with tongue scraper after brushing your teeth.
5. Floss your teeth at least once a day.
6. Use Chlorhexidine / Listerine mouth rinse to freshen your breath.
7. Decayed teeth should be restored to prevent accumulation of food deposits within the cavity.
8. Gum disease / periodontal problems should be treated at the earliest to eliminate bad breath.
9. Treatment should be obtained for systemic problems like diabetes, liver disorders, kidney disorders, gastric disorders, lung infections and sinusitis so as to eliminate bad breath.
10. Quit smoking and tobacco to be free of bad breath and to have a healthy oral cavity.
11. Use chewing gum containing xylitol to freshen your breath.
12. Clean your removable dentures daily using denture cleansing brush and tooth paste to remove food particles and bacteria present over it.



### Conclusion

Bad breath can affect a person very badly. It can decrease the self-confidence of a person and make others ignore him. Just as our physical appearance is important, similarly our breath has great importance. Bad breath is curable and the cause should be identified and treated accordingly to be rid of this problem.

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Customer Care No:- +919820758798  
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**GREEN**  
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Green technology, an environmentally friendly technology is developed and used in a way that protects the environment and conserves natural resources. A part of the renewable energy branch of the environmental technology movement, the importance of green technology cannot be ignored. We have come to a point, where we need to pause and reflect on the growing green technology and why it is going to be important for humanity.

With plentiful reasons behind green technology, perhaps volumes can be written and spoken on the subject. Whether it is the growing importance of green technology in the industry or at homes, it is obvious that things need to be done fast. It does not take a rocket-scientist to state that mankind has to do something about clean environment and save energy resources.

Going green can only help us come out of the present grim situation. Before things turn for the worst, we should realize the importance of green technology to solve this problem.

Using knowledge for practical use is known as technology. Green technology uses non-polluting practices to produce things and materials which are non toxic. The innovative practices used in this technology can bring positive changes in our daily life. The practice involves fulfilling the needs of the society without causing depletion of the available natural resources and preserving it for future use. So, green technology gives importance to sustain, at the same time for allowing the fulfillment of current needs.

### **The Goals of Green Technology**

- The important goals of the green technology include
- Conservative use of the natural resources
- Creation of products that are reusable or recyclable
- Bringing change in the production pattern to reduce waste and pollution
- Finding alternatives to the practices which adversely affects the environment and humans

This will ensure less pollution to the environment and better living conditions for humans in the future.

The Earth's environment as well as the ecological balance is being badly impacted as a consequence of natural catastrophes such as drought and floods or human activities such as urbanization, industrialization and pollution. Thus, there arises a growing need to evolve methods to counter this damaging effect on the Earth's environment. This is where **“Green Technology”**

comes into play.

Green Technology is a very wide field which entails developing new techniques which will help in keeping the environment free from toxins, pollutants and hazardous substances. These techniques starting from recycling of wastes such as plastics and devising alternative sources of energy generation such as wind and solar energy to reduce dependency on non-renewable resources such as minerals extracted through mining, can go as far as making hybrid cars that will release lesser pollutants in the atmosphere as compared to conventional gasoline cars.

At the outset, let us begin with the areas that green technology will bring into its fold which are being discussed hereunder:

### Energy

As we all know, the rise in the concentrations of greenhouse gases in the Earth's atmosphere is the leading cause of global warming which will adversely affect the healthy sustenance of the diverse life forms on the planet. So, to minimise the

**Green Technology is a very wide field which entails developing new techniques which will help in keeping the environment free from toxins, pollutants and hazardous substances**

effect of global warming, it is essential to come up with alternative sources of energy which will help us in reducing the emission of gases such as carbon dioxide and nitrogen in big amounts in the atmosphere, resulting in a decline in pollution. These alternative sources of energy are being outlined below for you to understand their role in conserving our environment.

### Fuel Cells

Solid Oxide fuel cells will mark a revolution in the area of material science in putting a full stop to the emission of greenhouse gases, thus lowering the levels of air pollution. This is a device which transforms chemical energy from a fuel into electric energy via a chemical reaction with oxygen or any other oxidizing agent. Hydrogen is the main fuel which is used in these cells. It is further projected that the vehicles will also run on these electrochemical power plants which will help in keeping the Earth's atmosphere free of pollution.

### Solar Energy

One of the most significant sources of alternative energy is solar energy. The photons released by the sun are used by the silicon-based photovoltaic cells to produce electricity, in turn, controlling carbon dioxide emissions in the atmosphere.

### Battery Technology

The advancements in the sphere of technology have led to the evolution of many new areas of energy generation such as battery technology. This is an upcoming field and has gained importance due to its extensive usage in computers and portable electronics, among others. This technology works by regulating the flow of ions at the anode and cathode in two separate half cells that are part of a voltaic cell. Hence, battery engineers devise equipments which require the electrons to flow through an external circuit, changing the chemical energy into electrical energy, in the process of discharging the cell.

### Wind Energy

The perpetual source of energy is that of wind energy that involves the conversion of the wind energy through wind turbines and other blade methods into electrical energy.



### Geothermal Energy

This form of energy results from the heat stored in the Earth's crust as a consequence of radioactive decomposition of minerals and the sun rays falling on the Earth's surface, among other factors. This mode of energy generation is also cost efficient promising the life forms vast amounts of energy, than the energy produced by combustion of fossil fuels.

### Metallic Foams

Metallic foams are gaining significance across the globe for the extensive usage in treating environmental contaminants by trapping chemicals and other pollutants in the spaces. These foams are made of metal are composed of a large number of spaces or pores filled with gas.

### Green Building

One of the pivotal developments in the sphere of green technology is the conceptualization of a green building. Green building incorporates everything right from the scratch which ranges from choosing the materials needed to construct the house to deciding upon a location in an environment useful way. This will minimize the hazards posed by the conventional building materials paving the way for a healthier life.

The green building will be constructed using non-poisonous renewable sources of energy, which can be recycled over time for developing new products, thereby minimizing the threat posed to the Earth's environment. The green building in addition to the above benefits will also reduce your dependence on energy sources such as running water, electricity, heating, cooling and efficient waste output system. The structure will bring into use natural energy sources such as wind energy, solar energy, natural air ventilation, grass rooftops and water catchment to fulfil your day-to-day energy requirements.



### Green Computers with biodegradable parts

Green technology is incomplete if it is not applied to machines in an endeavour to make the Earth's environment pollution-free and healthy for sustenance and growth of living beings. The present range of computers are built using metals such as lead, cadmium, brominated fire retardants as well as plastic which can, in due course of time prove hazardous for our environment. These computers will be replaced by green computers which will entail the technique of conceptualizing to manufacturing, using as well as disposing it and its related subsystems efficiently without any damaging effects on our environment.

### Hybrid Cars

Increasing urbanization has led to a rise in the number of vehicles possessed by individuals. This has brought about an increase in the pollution levels posing a big threat to the human health and other life forms. To put a halt to the rising pollution levels, new hybrid cars have been developed which will address this environmental concern. These environment-friendly cars will offer better mileage and lesser pollution as compared to a gasoline powered car. These cars will be a cross between fuel run cars and electric cars.

### Significance of Green Technology

The application of different techniques of material science to help preserve our environment from the harmful effects of environmental pollutants requires depletion of such sources which may be recycled and are not faced with the threat of depletion post several decades. Thus, it is a promising field which will provide the living beings healthy sustenance with alternative living solutions.

E  
F P  
T O Z



# Myopia - Myths And Facts



**Dr. Raghuraj S. Hegde**  
Consultant Ophthalmologist  
Bengaluru, Karnataka, India

Myopia is a refractive error of the eye when the eyeball is too long in comparison to the focusing power of the front part of the eye. This causes light rays to focus at a point in front of, rather than directly on the surface of the retina. There are many myths that have been propagated about Myopia. I intend to dispel three of these myths in this article.

## **Myth 1:**

Myopia is a disease/disorder!

## **Fact:**

First of all **Myopia** is neither a disease nor a disorder. It is mostly a variation of the normal.

*Would you call a person who is shorter or taller than the average height as one having a disease or a disorder?*

Extremes of height – being very short or very tall could be one of the signs of a disease or disorder. It is the same with Myopia. Very high Myopia (short-sightedness) or very high Hypermetropia (long-sightedness) could signal some disease or disorder but most of the people with myopia or hypermetropia are just variation of the normal. Some outliers like people with **pathological progressive myopia** are quite rare – which is the same case with people who are extremely short or

extremely tall.

## **Whether genetics comes to play in myopia?**

As in the case of height, there are factors of **nature (genetics) and nurture (environment)** which is responsible.

I will deal with nature first...genetics. There are several genes identified all over the genome but we still have not come close to actually "*switching off the myopia gene*" because there is no "single gene" affecting

myopia – there are plenty of them and we still do not know which ones have how much effect like the following paper suggests.

## **Myopia Genetics - The Asia-Pacific Perspective (2016)**

Myopia is multifactorial in etiology, resulting from the interaction of environmental and genetic risk factors. During the past two decades, a large number of gene loci and variants have been identified for myopia. There



are more than twenty myopia-associated loci spanning all chromosomes.

Earlier findings were obtained mainly from family linkage analyses and candidate gene studies and more recent results are principally from genome-wide association studies and exome sequencing. Some genetic associations have been successfully validated and replicated in populations of different geographic localities and ethnicities, but some have not. Compared to Whites, Asian populations, in particular Japanese, Korean and Chinese have a much higher prevalence of myopia, especially high myopia. Both genetic and environmental factors contribute to such ethnic variations.

Myopia has a strong genetic association – so if both parents are myopic, the child is likely to be myopic.

### **Now moving on to nurture – i.e. environment**

#### **Myth 2:**

Myopia is caused by children reading a lot and using smartphones all the time.

#### **Fact:**

This is not a direct effect of smartphones but an indirect, yet very important effect. Myopia has a strong genetic association. So if both parents

are myopic, the child is likely to be myopic. Myopia is a subject of intense research in Asian countries especially in South-east Asian countries where incidence of Myopia is very high (Singapore has an incidence of nearly 80%).

Many studies have been published in association with genetics, near work, lack of physical activities and decreased outdoor exposure. However apart from genetics, the most consistent association of Myopia has been with *lack of outdoor natural sunlight exposure*.

With the disappearance of playgrounds for children to play in urban dwellings in most cities of the world and with most of the activities of growing children having been changed to indoor settings I worry this will be a recurring concern. I often have concerned parents ask me how much screen-time they should allow their toddlers so that their eyesight is not affected.

The problem that most parents do not realize is that the screen itself is not the problem. It is the lack of sunlight their children receive that is affecting their health. Lack of natural sunlight can also decrease Vitamin D levels in the body (again an occupational problem of professionals who spend most of their time out of natural sunlight in air conditioned offices).

Many parents today have resorted to using tablets and smartphones as feeding tools to keep the toddlers and children occupied while they feed. It is not very bad in the short term but it is not good development either.

The best gift one could give their children is to make them spend at least a part of their day (even as little as a couple of hours) outdoors playing in the sun as humans were designed for and not glued to television screens and YouTube videos on smartphones.

In conclusion, Myopia is still by definition a refractive error – a variation of normal. It is caused by the interplay of complex genetics and environmental

**Many parents today have resorted to using tablets and smartphones as feeding tools to keep the toddlers and children occupied while they feed**





conditions. No single sentence answers the causation that exists.

**Myth 3:**

Eating carrots gets rid of glasses or improves vision

**Fact:**

You do not really have to eat carrots for eyesight.

Not just carrots, no food has any effect on improving eyesight in the absence of any deficiency. No supplements will improve existing vision. Some supplements may help maintain existing vision in some patients with Age Related Macular Degeneration (ARMD).

There is absolutely no co-relation between consumption of carrots and refractive error. Carrots contain beta carotene which is converted to Vitamin A in the body. In the presence of adequate Vitamin A, the beta carotene is not converted to Vitamin A and excreted in the urine. I need to probably emphasize this again. There is no supplement that changes refractive error and no “natural” way to reverse Myopia.

Carrots improving vision is an urban myth. It is probably a colonial obsession that has sometimes taken dangerous proportions in India. The best real life example I can give is that when I had a kid come into my clinic once to **“check if the carrots are working”**. His mom was feeding him nearly 2 kilos of carrots in various forms every day. The boy had become yellow due to deposition of beta-carotene on the skin.

This according to me is borderline child abuse. Though well intentioned, the obsession about “curing myopia” is dangerous. Fortunately for the kid, beta-carotene is not toxic to the body but a high level of Vitamin A is very toxic and can cause a host of problems.

A well balanced diet is enough to provide all the vitamins and nutrients that is required by the body. Any supplements that you may require will be advised by your physician if they suspect a vitamin or mineral deficiency. Obsessive self-administration of health supplements can be detrimental to your health rather than improving it.

**Carrots improving vision is an urban myth. It is probably a colonial obsession that has sometimes taken dangerous proportions in India**

# DENTAL MANIFESTATIONS OF PREGNANCY

Dentists often hear their pregnant patients saying, "For every child she bears, a woman loses a tooth." This is a myth indeed.

This old saying might have borne some truth few years ago, but today women are better educated about their teeth. Dentists understand more about their altered physiological and psychological state, neglect in oral hygiene or postural position during treatment. Teeth related problems could result in compromised nutritional status to the fetus and therefore needs immediate attention.

## Learning objectives

- 1) To identify the main dental manifestations of pregnancy.
- 2) To be able to advice pregnant woman on how to maintain good dental health.

*The numerous physical and physiological changes that occur during pregnancy affect every major body system and result in many parts of the body, including the oral cavity*



**Dr. Dhruiti Mehta**  
Dental Practitioner  
Mumbai, Maharashtra, India

- 3) To be aware of the need for effective communication between the dental and medical disciplines to ensure that pregnant woman receive the best care possible for oral, obstetric and general health.

## Ethical issues

The treatment of gingivitis and periodontitis during pregnancy is safe and effective in treating gum disease.

## Introduction

The numerous physical and physiological changes that occur during pregnancy affect every major body system and result in many parts of the body, including the oral cavity. The aim of this write-up is to increase the awareness of the main potential dental manifestations which can occur in pregnancy.

## Pregnancy Gingivitis

Gingivitis: Plaque induced inflammation of the gingival part of the oral mucosa which surrounds the tooth and covers the alveolar bone.

During pregnancy, the inflammatory response to dental plaque is increased, leading to swollen gingiva which tends to bleed on brushing. This condition is also called as pregnancy gingivitis.





Characteristic feature of healthy and inflamed gingiva are listed in the box below:

Healthy gingiva	Gingivitis
Pink	Red / bluish red
Firm with stippled surface	Soft with shiny surface
Painless	Usually painless, painful in severe cases
Papillary gingiva fits the interdental or interproximal space exactly while marginal gingiva finishes with knife-edge margin at tooth surface	Gingiva becomes swollen and oedematous and appearance is blunted. Knife-edge adaptation and scalloped shape of healthy gingiva are lost
No bleeding in response to probing during tooth cleaning or when eating	Bleeding in response to probing, during tooth cleaning, when eating and spontaneously
Probing depths - 3 mm and no pocket formation	Increased probing depths and pocket formation

### Period of occurrence

Pregnancy gingivitis commonly becomes apparent later in the second month of gestation and worsens as the pregnancy progresses before reaching a peak in the eighth month. In the last month of gestation, gingivitis usually decreases and immediately post partum, the gingival tissues are found to be comparable to those seen during the second month of gestation. However this does not indicate a return to health.

### Mechanism

It is not caused by an increase in dental plaque, but may be due to the effects of pregnancy on the gingival tissues where both estrogen and progesterone receptors are found. It is possible that the pregnancy related gingival changes may be explained by increased vascularity and vascular flow alongside alterations in the immune system and / or changes in the connective tissue metabolism.

### Management

1. Regular dental visits for professional cleaning and monitoring.
2. Educating the woman about the etiology and helping them to prevent the condition.
3. Elimination of factors which compromise removal of plaque (e.g. overhanging restoration margins), so that plaque levels can be minimized.

### Pregnancy Epulis (Pyogenic Granuloma of Pregnancy)

The pregnancy epulis is a localized, soft hyperplastic lesion which develops on the gingiva in up to 5% of pregnancies. This bright red, highly vascularised lesion, which may have small white flecks superficially, is usually pedunculated and can measure up to 2 cm in diameter.

Although it can arise from any gingival site, it mostly occurs on the interdental papillary gingiva, particularly on the labial aspect and more commonly on the upper jaw than the lower. Teeth adjacent to the pregnancy epulis may be seen to drift and become increasingly mobile, although bony destruction rarely develops around the teeth directly involved.

It may develop at any time but appears to be most common in early pregnancy. It has been suggested that this lesion arises from an already inflamed gingival papilla; therefore plaque is considered an important initiating factor.

### Non-Surgical Management of Epulis

Elimination of plaque, particularly around the papilla.

Surgical reduction should only be performed during pregnancy if the epulis is traumatized by opposing teeth or restorations resulting in pain and bleeding, if it is interfering with normal speech and/or mastication, or if it bleeds severely and/or becomes painful.

However, if surgery cannot be delayed, removal should be done during the second trimester and the woman should be informed of the risk of recurrence.

### **The effects of pregnancy on the host response and oral flora**

Although the damaging processes accompanying periodontal disease (such as bone and periodontal ligament destruction) are associated with plaque bacteria, they are, in fact, mainly a result of the host response to this microbial assault.

Dietary changes that may occur, especially in early pregnancy, such as regular consumption of sugary snacks and drinks to satisfy cravings or to prevent nausea and sickness will result in an increased risk of dental caries, unless extra attention is paid to oral hygiene. This can be further complicated if the pregnant woman is unable to tolerate tooth brushing because of nausea and sickness to the extent that tooth brushing is significantly compromised.

### **Tooth surface loss**

Tooth surface loss, primarily through acid-induced erosion, may be seen if there has been nausea and associated repeated vomiting during pregnancy. The woman commonly complains of sensitivity, which is a consequence of the resulting dentine exposure.

Management is essentially preventative and includes the regular use of a fluoride mouth rinse, especially in those women who vomit frequently. In addition, these women should be advised to avoid

tooth brushing directly after vomiting as the effect of erosion can be exacerbated by brushing an already demineralized tooth surface.

### **Tooth mobility**

Increased tooth mobility has been detected in pregnancy even in periodontally healthy women. The upper incisors are most mobile during the last month of pregnancy, which usually resolves post-delivery.]

### **The impact of periodontal health on Pregnancy**

Given the considerable effect of pregnancy on oral health, it is interesting that the impact of periodontal disease on pregnancy outcome is now under scrutiny. The idea that it may contribute to pregnancy outcome was presented in 1931 when Galloway stated that periodontal disease may provide 'sufficient infectious microbial challenge' to have **'potentially harmful effects on the pregnant mother and developing fetus.'**

Infection, especially symptomatic infection of the genitourinary tract, is considered an important **risk factor for preterm birth and/or low birthweight.**

Current research of several

scientists such as Offenbacher et al, Jeffcoat et al, Madianos et al proved the relation of periodontal infection and preterm birth and low birth weight. They reported that preterm birth and low birth weight were 11 times more likely to occur in women whose periodontal disease worsened during pregnancy compared with those who had good periodontal health.

### **Conclusion**

The aim of this article is to increase awareness of the potential oral manifestations of pregnancy.

Those involved in obstetric and prenatal care may well be the first health professionals to become aware of developing oral conditions and it is important that they can provide appropriate information, advice and reassurance followed by referral for a dental examination, treatment and monitoring as necessary.

Given that periodontal health may also affect pregnancy, it is vital that effective communication occurs between the dental and medical disciplines to ensure that pregnant women receive the best care possible for oral, obstetric and indeed, general health.



# MAKING WORK EASY

## Renfert's claim has a rich past and a great future ahead

Renfert's intelligent dental solutions and reliable services are based on one simple idea: making work easy. At Renfert, we dedicate ourselves to making work easier, better, more efficient and more precise for dental laboratories and practices. This enables us to create comprehensive solutions for materials and equipment, as well as smaller practical products that lighten the load of daily routine. By working closely with our customers and talking to them in depth, these solutions can be continually improved or completely redesigned when needed. This idea has been fundamental to Renfert from the very beginning, back in 1925. Its success has enabled

a mid-sized German company from the small town of Hilzingen to become and remain a leading global brand for quality dental equipment. Today, Renfert solutions are sold in over 120 countries, because "making work easy" appeals to dentists and dental technicians worldwide.

## Reaching solutions together

### How Renfert develops products that make work easy

Truly great solutions rarely leap straight off the drawing board – usually they're the product of talking to many people who use them. At Renfert, we carefully cultivate this dialogue with our users. For us, it's a source of inspiration and important insights, which prove again and again to be the key to making

products of maximum relevance for the day-to-day work of dental technicians.

In this collaborative relationship between developers and end users, one thing is especially crucial: most Renfert product managers themselves are qualified dental technicians with extensive professional experience. Renfert also has its own dental technology department. Here our staff devote themselves

exclusively every day to developing and improving solutions for laboratories and practices that meet the following essential requirements: maximum everyday utility and efficiency, user-friendliness and simplicity of use. In other words, solutions that make work easy.

### Chief Executive Officer and Owner

Dr. Sören Rieger

### Chief Executive Officer

Sören Hug

### Headquarters

Hilzingen

### Press contact

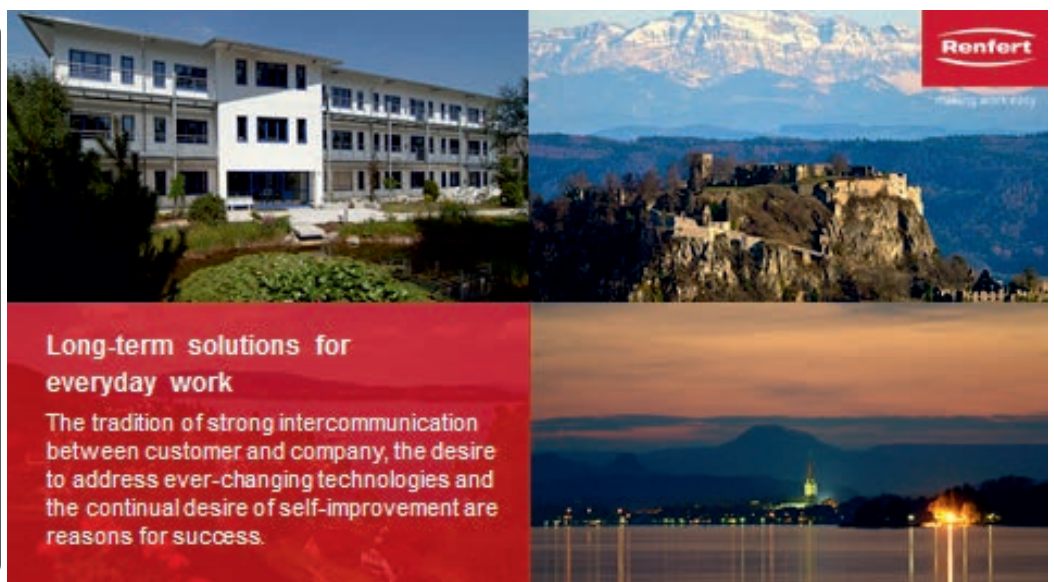
Alberta Domnick

Tel. +49 7731 8208 898

E-Mail: [Alberta.Domnick@renfert.com](mailto:Alberta.Domnick@renfert.com)

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# Product Profile

## World's best choice Clear Aligner



# DENTCARE CLEAR ALIGNERS

Dental braces are now entering a brave new world of comfort and ease with DentCare Clear Aligners—a series of transparent aligners to realign teeth.

DentCare Clear Aligners make the cut as they serve as invisible, removable splints born out of thin, transparent plastic. They can be easily changed every two weeks, sparing users the tedious task of heavy maintenance.

### **Comfort Ensured—Quality Guaranteed**

We have put forward the most sought after treatment solution to counter the drawbacks of dental braces!

Each DentCare Clear Aligner is unique as it is customized for the patient's teeth.

Remove them while eating or drinking. They permit pursuit of one's own regimen of oral hygiene measures. There is absolutely no need to spend long hours at the clinic negotiating conventional brackets and wire adjustments.

Patients and dental clinicians stand to gain numerous valuable hours. Consequently, the dental clinician also gets to spend quality, value-added time with each patient.

During treatment, each DentCare Clear Aligner is replaced following the prescribed sequence as the teeth move—little by little, week by week—until they have gradually straightened to their final position.

With DentCare Clear Aligners, the final outcome of the treatment may be visualized with the aid of 3D virtual simulation and a treatment plan can be formulated accordingly.

DentCare has on board a panel of expert Orthodontists who are proficient to guide us through the toughest of cases. The panel would verify and ensure correctness during the plan formulation stages itself and thus ensure that the required result is achieved.

The product also comes with clear cut instructions for both the clinician as well as the patient.

### **Advantages for the patient**

- No metal brackets or wires which may cause irritation or friction inside mouth

**DentCare has on board a panel of expert Orthodontists who are proficient to guide us through the toughest of cases. The panel would verify and ensure correctness during the plan formulation stages itself and thus ensure that the required result is achieved**

- Almost invisible and transparent splints
- Hygienic as it can be taken off easily to clean
- Easily removable – does not affect eating habits
- Simple and precise planning process
- Highly biocompatible
- Hassle free speech and smile
- Blends with lips and cheeks
- Final result can be visualized in 3D before treatment starts
- Fewer and shorter appointments required
- Time saving correction of misplaced teeth
- Replacement aligners at minimal cost

#### Indications

- For diastema closure
- For correction of minor to moderate front teeth crowding
- To correct deep bite
- To correct over jet
- To correct open bite

***Prior to beginning the process of planning and designing a DentCare Clear Aligner, a perfect understanding of the patient's chief complaint and the proposed treatment plan is absolutely necessary.***

For better treatment planning and optimal clinical result, detailed information is critical. Complete evaluation is provided by DentCare to help achieve better execution of cases.

#### Acceptable Impressions

To proceed with the CAD / CAM procedure for processing an order of a custom made DentCare Clear Aligner, both upper and lower models of the patient's dental arches along with bite registration are required.

Intraoral scans of upper and lower teeth may be emailed to [aligner@dentcaredental.com](mailto:aligner@dentcaredental.com) with details of the patient and name of the doctor.

You may also choose to send impressions with Polyether but impressions with Polyvinyl Siloxane (PVS) are preferred. A one-step heavy / light body impression is the most efficient option for a DentCare Clear Aligner case.

#### Acceptable Bite Registration

Bite registration is absolutely necessary to reproduce the inter-arch relationship. This would help to establish the patient's occlusion in the laboratory and ensures that the

treatment is carried out within the parameters of the initial occlusion.

A bite registration silicone is the material of choice for bite registration as it gives excellent details of the occlusal contacts without rebound effect.

#### Digital Case Records

In order to proceed with the designing, it is mandatory to send us digital records of the patient. Ideally, a CBCT or CT is preferred. However, an Ortho pantomogram (OPG) along with Lateral Cephalograph would suffice.

#### Photographs

Photographs as mentioned below are mandatory.

##### Intraoral

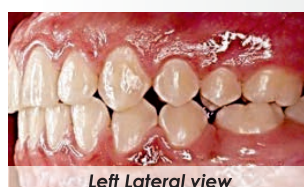
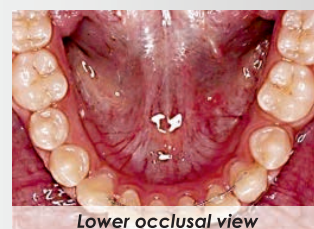
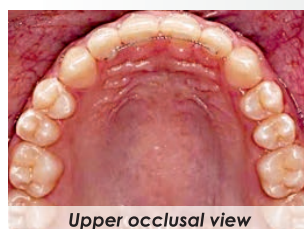
1. Upper occlusal view
2. Lower occlusal view
3. Left Lateral view
4. Right Lateral view
5. Anterior view

##### Extraoral

1. Lateral view
2. Anterior view

#### How does it work?

The treatment consists of a revolutionary system which



**Each DentCare Clear Aligner must be put on for at least 20 hours a day for two weeks. This slowly pushes the teeth into positions planned by the dentist**

integrates the latest software and 3D CAD / CAM technology.

The patient models are scanned with a high-tech 3D digital scanner. The software assists in analyzing the treatment requirements and thus supports in planning and mapping out all intermediate stages necessary to reach the predetermined goal.

The number of aligners required is ascertained. At each transitional stage, only minor tooth movement is effected and assists to progressively reposition the teeth. After two weeks, the next set of aligners should be used. The treatment process thus advances accordingly.

Each DentCare Clear Aligner must be put on for at least 20 hours a day for two weeks. This slowly pushes the teeth into positions planned by the dentist. Treatment time varies based on the complexity of the tooth movement planned.

#### **When should you wear it?**

We recommend wear of a DentCare Clear Aligner everyday as per the dental clinician's instructions or as instructed in the DentCare Clear Aligner schedule. Remove it only when you eat, drink or brush / clean your teeth. When you are not wearing the Aligner, place them in the case provided.

#### **How do you wear them?**

- Soap-wash your hands thoroughly before handling the Aligners.
- Handle only one Aligner at a time.
- Never bite the appliance into place. Bites can distort or break your

Aligner. Always use fingers to place the Aligners in your mouth.

- When inserting, gently push the Aligners over your front teeth. Then apply pressure with your fingers, on top of the left and right molars until they snap into place.
- Make sure each Aligner is fully seated. There should not be any space between the edge of the tooth and that of the Aligner. If the Aligner is not settled in place, teeth will not move properly and the next Aligner will be even further off. This can waste many weeks of treatment.

#### **How do you remove them?**

To remove DentCare Clear Aligners, pull them off simultaneously on both sides of the back teeth first and then gently lift from the front teeth.

#### **How do you clean them?**

Clean the Aligners prior to each insertion using the soft brush provided and rinse them with water.



#### **Things to remember**

- Never expose the Aligners to heat; they will get distorted and become loose fitting.
- Never forcefully bend or twist the Aligners to adjust or get them off.
- Never boil to clean or sterilize the Aligners.
- Never remove the Aligners unless it is very necessary.
- Never use any sharp object to remove the Aligners.
- Never use denture cleaners to clean your Aligners.
- Never soak the Aligners in mouthwash.

With DentCare Clear Aligners, you have on board with you, an innovative product from the lab partner most trusted by thousands of dental clinicians worldwide.





# MY EXPERIENCE WITH DENTCARE

“  
**The work at DentCare  
Dental Lab is of  
remarkable quality**”



**Dr. Jigish D. Shah**  
Consultant Oral and  
Maxillofacial Surgeon  
Surat, Gujarat, India

Precise, perfect and pleasant – these are the words that come to my mind when I think of DentCare Dental Lab.

Implant prosthetics is the most precise work in dentistry. What is seen by the patient is the job of the dental lab. The work at DentCare Dental Lab is of remarkable quality. The best thing is that, they do not compromise with impressions and ask for repetition without hesitation. Though the distance and the transportation take a bit of time, once the final restoration is delivered, all the delay seems to be unimportant.

The DentCare staff, especially the marketing executives, have always been courteous and polite. We can feel their sincerity and honesty. Hats off to the basic, fundamental philosophy of the Managing Director, Mr. John Kuriakose!

In short, THE DENTCARE EXPERIENCE is an attitude by itself.

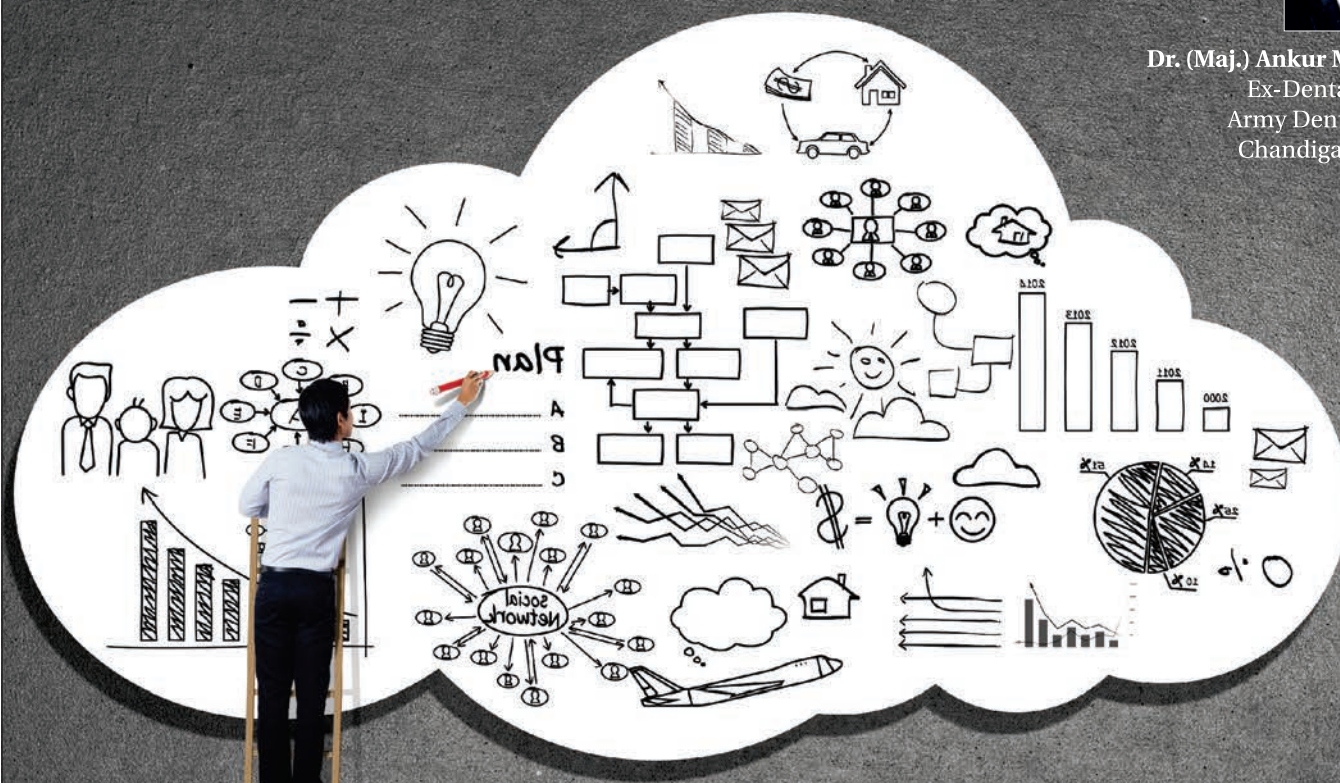
# DENTAL ENTREPRENEURSHIP: NEED OF THE HOUR

Starting a new dental practice requires immense courage, conviction, faith and determination. It is imperative that dentists who wish to start up their own dental practice must inculcate entrepreneurial spirit and work hard on imbuing a spirit to endure the tough and rough road towards success and profitability.

Ten of the top qualities to become a successful dental entrepreneur can be summarized as:



**Dr. (Maj.) Ankur Malhotra**  
Ex-Dental Officer  
Army Dental Corps  
Chandigarh, India



## TOP TEN QUALITIES



### PASSION

Passion is an intense, compelling enthusiasm or desire for something. If you are not passionate about your work, you will surely lose the desire, drive and determination required in early phases of your dental practice.

"Without passion, you do not have energy; without energy, you have nothing."

*Donald Trump*

### DETERMINATION

Even before starting a dental venture, you have to be determined to make it a success. Without determined effort it will be very difficult to take setbacks and early failure in a positive stride.

"The price of success is hard work, dedication to the job at hand, and the determination whether we win or lose; we have applied the best of ourselves to the task at hand."

*Vince Lombardi*



### SELF CONFIDENCE

It is the belief in one's ability to succeed. Without self confidence, it is nearly impossible to be successful in any venture in life. Self confidence is not always about being a success but also helps us meet challenges and failures in our entrepreneurial journey.

"Low self-confidence is not a life sentence. Self-confidence can be learned, practiced and mastered; just like any other skill. Once you master it, everything in your life will change for better."

*Barrie Davenport*

### RISK TAKING ABILITY

With great risk often come great returns. You have to put on stake a lot to build a successful dental start-up. Entrepreneurs have to be inherent risk takers. The very nature of life is uncertain. We have to live boldly and look at fears and failures in the eyes to grow, learn and achieve success.

"Life is either a daring adventure or nothing at all."

*Hellen Keller*



### CREATIVITY

Creativity is an act of turning new and imaginative ideas into reality. If you have ideas but do not act on them, you are imaginative but not creative. Dental entrepreneurs must yearn and learn to be more creative and bring creativity into everything they do.

"Creativity is a great motivator because it makes people interested in what they are doing. Creativity gives hope that there can be worthwhile idea. Creativity gives the possibility of some sort of achievement to everyone. Creativity makes life more fun and more interesting."

*Edward De Bono*



### SELF DISCIPLINE

Self-Discipline is the backbone of any successful dental entrepreneur. They have to be role models, leaders and visionaries for the entire team. They have to set example by coming first and leaving last, be immaculate in everything they do and share success with their team in order to be successful.

"In reading the lives of great men, I found that the first victory, they had won, was over themselves. Self-discipline with all of them came first."

*Harry S. Truman*

### NETWORKING SKILLS

Networking is the process of developing and using your contacts to increase your business and interpersonal relations. It involves good communication skills, interpersonal skills and high emotional intelligence. Networking benefits by generating referrals, introduction to new opportunity, enhanced visibility, increases self-confidence and helps in building a strong brand image.

"The richest people in the world look for and build networks, everyone else looks for work."

*Robert Kiyosaki*



### PATIENCE AND PERSISTENCE

There is no overnight success in any business or start up. As it is said, good things come to those who wait. Being patient is one of the key virtues every dental entrepreneur must possess. Persistence on the other hand is not giving up easily while facing challenges or difficulties. Persistence sometimes makes the difference between being successful and being a failure.

"Patience, Persistence and Perspiration make an unbeatable combination for success."

*Napoleon Hill*

### MARKETING AND ADVERTISING SKILLS

All dental entrepreneurs must work on honing their marketing and advertising skills. They must focus on four P's of marketing namely product, price, place and promotional strategy. Marketing is based on thinking about the business in terms of customer needs and their satisfaction.

"The aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself."

*Peter Drucker*



### LIFELONG LEARNING

Dental entrepreneurs have to be lifelong learners to keep pace with new innovations in both dental products and procedures. Rapid advances in technology and software make it mandatory to be in touch with latest developments in the field.

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

*Alvin Toffler*

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# World Water Day 22 March

With two thirds of the earth's surface covered by water and the human body consisting of 75 percent of it, it is evidently clear that water is one of the prime elements responsible for life on earth.

Water circulates through the land just as it does through the human body, transporting, dissolving, replenishing nutrients and organic matter, while carrying away waste material. Further in the body, it regulates the activities of fluids, tissues, cells, lymph, blood and glandular secretions.

An average adult body contains 42 litres of water and with just a small loss of 2.7 litres he or she can suffer from dehydration, displaying symptoms of irritability, fatigue, nervousness, dizziness, weakness, headache and consequently reach a state of pathology.

Since the 'water' we drink provides for cell





Traditional and modern medicines have been making use of the psychological and physiological diverse properties of water, in all forms of hydrotherapy

function and its volume requirements, the decrease in our daily water intake affects the efficiency of cell activity and as a result chronic dehydration causes symptoms that equal diseases.

#### **The History of Water**

Water has been used since antiquity as a symbol by which to express devotion and purity. Some cultures, like the ancient Greeks, went as far as to worship gods who were thought to live in and command the waters. Whole cities have been built by considering the location and availability of pure drinking water. The place of gathering was around the wells, which is perhaps the following trend in building fountains in the middle of piazzas.

Traditional and modern medicines have been making use of the psychological and physiological diverse properties of water, in all forms of hydrotherapy. We all know of

the simple, yet effective, calming qualities of a warm bath or the invigorating qualities of a cold shower.

For centuries, numerous healing springs located all around the world have been recognised for their benefits. The famous Belgium spas in the Ardennes are a fine example. Historical records of these cold springs claim 'cures' since the fourteenth century. The hot Californian spas, the healing spas of Loutraki in Greece, the Dalhousie hot springs in the border of South Australia and Northern Territory, Moree in New South Wales (NSW), Hepburn mineral spas in Victoria are just a few examples.

### **Our Water Today**

Contrary to the past, our recent developed technological society has become indifferent to this miracle of life. Our natural heritage (rivers, seas and oceans) has been exploited, mistreated and contaminated.

The population decline of the marine and riparian life, the appearance of green algae in the rivers and the stench and slime that comes as a result of putrefaction in the water, are clear signs of the depth and extent of disruption that has been caused to this intricate ecosystem. Government bodies and water authorities will have us believe that it is 'safe' and we should not worry about this global alarm. Awareness and action lies entirely upon us, as we need to become our own educators, physicians and innovators.

### **The Truth about Drinking Water**

Our drinking water today, far from being pure, contains some two hundred deadly commercial chemicals. Add to that bacteria, viruses, inorganic minerals (making the water hard) and you have a chemical cocktail that is unsuitable (if not deadly) for human consumption. Different chemicals being found in drinking water are:

#### **Chlorine**

Studies indicate that chlorine is involved in heart disease, hardening of the arteries (arteriosclerosis), anaemia, high blood pressure, allergies and cancers of the bladder, stomach, liver and rectum. Further, chlorine can destroy protein in the body and cause adverse effects on the skin and hair.

The US COUNCIL of environmental quality states that cancer risk among people drinking chlorinated water is 93% higher than among those whose water does not contain chlorine". Chlorine binds and reacts with many other chemicals, forming carcinogens like Trihallomethanes (THMs), with chloroform being the most common one.

Furthermore, recent real life evidence in the tap

water of Sydney shows that certain viruses and parasites, like Giardia and Cryptosporidium, are being resistant to chlorine and can survive the long journey from the sewage treatment to your tap that makes chlorination a even more pointless and dangerous practice.

Water is a living substance and as such it needs the same treatment as all other living forms (poisons cannot purify). Germany has been for long now pumping oxygen in its rivers and lakes in an attempt to revitalise its nearly dead waters, while Switzerland is experimenting with ozone treatments.

#### **Aluminium sulphate**

Added to purify water, it has long been associated with memory loss, possibly Alzheimers disease and is believed to increase cardiovascular disease.

#### **Sodium fluoride**

This is not meant for water treatment and was initially added as a supplement to 'assumably' prevent tooth decay in children. Its toxicity is high enough that in larger concentrations it can be used as a pesticide and rat killer.

In humans, it can be damaging to the heart, lungs, liver, cause genetic mutations and have long term negative effects on enzyme production and the efficiency of the immune system. In the medical encyclopedia and dictionary by Miller-Keane, under fluoridation it refers that slight excesses of fluoride are poisonous and it can cause dental fluorosis (mottled discolouration of teeth) and when you look up further down under fluorosis, you can see clearly the irony of the system an enamel hypoplasia resulting from prolonged ingestion of drinking water containing high levels of fluoride".

Tests carried out in Victoria in 1976 by the State Water Supply Commission indicated that fluoride is involved in the corrosion of the copper pipes, which causes more poisons leaching into the water. Copper at certain concentrations affects the uptake





of essential zinc in the body and can bring on stomach pain, nausea and diarrhoea. Newer office blocks and high stories buildings are more risky, as taps are not regularly used, leaving fluorinated water standing in the copper pipes for longer periods of times, consequently allowing corrosion. As the debate about the safety of fluoride continues, countries such as Switzerland, Belgium, Holland, Germany and Sweden have terminated its use due to its potential health hazard.

### **Lead**

It is another chemical ingredient found in the water that imposes risks to the nervous, circulatory and digestive systems. It is a teratogen, a substance known to cause physical defects in the developing embryo. Chronic exposure, even in small doses, may have serious implications to your well being. Symptoms to be wary of are irritability, nervousness, weight loss, anaemia, stomach cramps, constipation and mental depression. The main source of lead in the water is the plumbing and its corrosion.

The list of chemicals continues: sodium silicofluoride slurry, sulphuric acid, sodium hypochlorite solution, calcium oxide, silt, rust, algae, debris, larvae, asbestos (mostly from corroding cement pipe lines), pesticides, herbicides, fertilisers (from agricultural run offs), moulds, fungi, industrial waste, toxic metals, amoebas, clay and silica have all found their way into the water. As if this is not enough, chemical reactions of the different constituents in our drinking chemical and sewage cocktail make things even worse.

Nitrates from fertilisers when brought in contact with chlorine and ammonia, can turn into nitrites. Nitrites once inside the body combine with amines and form nitrosamines which are highly carcinogenic. Nitrites can interfere with oxygen uptake and since babies are specifically sensitive to this aspect you could not fail to see a possible link between blue baby syndrome and the nitrite factor.

### **Unprotected Water Sources**

Approximately 1 in 9 people lack access to an improved water source. The majority of water sources in developing countries are unprotected. Families and schools typically dig holes or pits and allow for them to fill up via rain or ground water. In

some areas where there is a river nearby, this becomes an option for water. All three methods are subject to ground and exterior contamination. Rivers are always contaminated from animals using the same source and people using the source as a wash area.

Of course, having a water source at all is considered to be fortunate. Many communities walk miles just to fetch water. This consumes a major part of peoples' lives in water poor areas. In fact, women spend over 200 million hours A DAY collecting water.

### **Lack of Filtration**

Nearly 3.4 million people die each year from preventable waterborne illnesses. That is almost the entire population of Los Angeles, CA dying every year. This number can directly be attributed to lack of filtration of contaminated water and lack of sanitation and hygiene training.

The majority of these illnesses are caused from fecal contamination. Biosand Filters, Sawyer Filters and other methods can filter out over 99% of all contaminants. Filters allow us to access communities out of reach of machinery or provide a community an option where a well is not an option.

Every 21 seconds a child will perish from a preventable waterborne illness. Just \$1 provides a person clean water for an entire year. Fixing the problem is easy. We just need to all decide to do it.

### **Education Lost**

Education is one of the most important factors in poverty alleviation and creating opportunity in communities. A head teacher once mentioned that it was "impossible for our children to get a good education because the water they did have was only for a small time during the day and they never knew when it would be shut off. When it would shut off we send the kids home. This has given us the opportunity to teach our children and we will now be able to have a laboratory for science."

Without established water sources, schools cannot teach the children of developing countries effectively. Without an education, children grow up and have to steal and fight for their food. If we eliminate the issue of water, we can set entire areas on the path to success and sustainability.



# RARE DAY FOR RARE DISEASES

The last day of February is being observed every year as 'Rare Disease Day' all over the world. This is to create awareness among people about rare diseases and their impact on the lives of patients and their families and also to improve access to treatments.

'World Rare Disease Day' was created because treatments available for many rare diseases are insufficient. The social networks to support patients and their families are also inadequate. So the rare disease day was created by European Organisation for Rare Diseases (EURORDIS) and its council of National Alliances in 2008. They sponsored the first rare disease day in Europe on 29<sup>th</sup> February 2008. This date was chosen because 29 February is a rare day!

Later it became a world phenomenon with USA joining in 2009 and around 84 countries participating in 2014. NORD (National Organisation for Rare Disorders) helps these patients to get earlier diagnosis and appropriate treatment by raising awareness of rare diseases among doctors.

Later, Global Genes project also joined the initiative to promote rare disease day. Thousands of events are being organised every year around the world targeting general public and policy makers. Patients, their friends, families and caregivers as well as doctors, scientists, researchers, health care providers and policy experts join in this program to raise awareness.



**Dr. (Maj.) Nalini Janardhanan**  
Family Medicine Specialist  
Hadapsar, Pune, India

### What is a Rare Disease?

A rare disease means a disease which is not common. There are various definitions of assessing rare diseases in different countries. For example, a disease or disorder is defined as rare in Europe when it affects fewer than 1 in 2,000 people. Whereas in USA fewer than 1 in 2,00,000 and in UK fewer than 1 in 50,000 is considered as rare disease.

### Facts and Figures

- More than 7,000 rare diseases have been identified with more being discovered every day.
- Rare diseases affect around 30 million Americans and 350 million people worldwide.
- 80% of rare diseases are caused by faulty genes.
- Only 5% of rare diseases have an FDA approved drug treatment.

### In Children

50% of rare diseases affect children. It is noticed that rare diseases are responsible for 35% death in the first year of life. 30% of children with rare diseases will not live to see their 5th birthday.

### Causes

80% of rare diseases have been identified as due to genetic origins. Others are the result of

allergies, environmental causes or infections (viral or bacterial). They may be of degenerative or proliferative in nature.

### Symptoms

There may be a variety of symptoms which vary from disease to disease and also from patient to patient suffering from the same disease. There may be some common symptoms which can hide the underlying rare diseases leading to wrong diagnosis and delayed treatment.

### Example of Rare Diseases

A few examples of rare diseases are Tay Sachs disease, Castle man disease, Evan's syndrome, Idiopathic pulmonary fibrosis, Hypertrichosis, Ectodermal Dysplasia, Arthrogryposis, Cystic Fibrosis, Biliary Atresia, Dextrocardia, Cleidocranial Dysplasia, Ehlers-Danlos Syndrome, Achondroplasia etc.

A disease that is rare in some populations may be common in others eg. Cystic fibrosis, a genetic disease which is rare in Asia, is relatively common in Europe.

With a single diagnosed patient only, 'Ribose-5-phosphate isomerase deficiency' is considered the rarest genetic disease.

### Themes

Each year the global planning committee, under the

leadership of EURORDIS and with NORD as the US representative, selects a theme to be used around the world on Rare Disease Day. The theme for 2016 was 'Patient voice' and the slogan was 'Join us in making the voice of rare diseases heard!'

As they say, 'a rare day to put rare diseases in the spotlight', this year the 10<sup>th</sup> edition of rare disease day falls on 28<sup>th</sup> February 2017.

The 2017 rare disease theme is 'Research' and the slogan is 'Research brings hope to people living with a rare disease.'

**More than 7,000 rare diseases have been identified with more being discovered every day**

Research on rare diseases is important in providing patients with answers and solutions they need, whether it is treatment, cure or improved care. Research can lead to identification of previously unknown diseases and can increase the understanding of disease. It can enable doctors to give a correct diagnosis and provide information to patients about their diseases. 'Research' is a good theme for rare disease day this year. Research can definitely lead to development of new innovative treatments and in some cases, a cure also. So let us hope for the best!





**Dr. Seema Alice Mathew**  
Consultant Oral and Maxillofacial Surgeon  
Chennai, Tamil Nadu, India

**DID YOU KNOW...?** Snoring during sleep can be dangerous. It mainly occurs when the lower jaw is very small or retruded and tongue tends to fall back creating an obstruction or narrowing in airway, resulting in the breath being temporarily stopped.

In most cases, the person is unaware of the same and awakens immediately gasping for breath, but sometimes the blockage in the airway is very mild or minimal causing continuous but slow and shallow breath, where the throat vibrates which results in noisy snoring. This could affect the sleep quality of the bed partner.

Spouses and partners will also suffer with sleeplessness and fatigue which can in turn disturb relationships.

A proper diagnosis and treatment of sleep apnea can help eliminate this problem.

#### **Who are at risk of sleep apnea?**

Obstructive sleep apnea may be seen in people suffering with

- Obesity
- Life style issues (excessive working hours or night shifts)
- Micrognathia (smaller lower jaw)
- Narrow upper jaw
- Enlarged tonsils and Adenoids
- Macroglossia (large tongue)
- Large soft palate



# SNORING

## A BEDTIME NIGHTMARE

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Once obstructive sleep apnea is diagnosed, recommendations are made to improve the lifestyle, by incorporating upright position during sleep, weight loss, quitting smoking, avoiding alcohol and sedatives prior to sleep

- Smoking and Alcohol abuse
- Diabetics
- Medications (Tranquilizers, Sleeping pills, Antihistamine, Beta blockers)

These patients have a high risk to develop heart failures and coronary heart disease and disorders.

#### How can you detect this condition?

People affected with sleep apnea suffer with sleepiness in job places, while driving; lack of energy during the day, morning headache, spouses observing snoring; thrashing or gasping for breath during sleep as well as irritability / behavioural issues.

Polysomnography or sleep study is recommended for people suffering with these issues, which is an accurate diagnostic measure.

#### How do you treat sleep apnea?

Once obstructive sleep apnea is diagnosed, recommendations are made to improve the lifestyle, by incorporating upright position during sleep, weight loss, quitting smoking, avoiding alcohol and sedatives prior to sleep.

Apart from these, severe cases of sleep apnea will require the use of a CPAP (Continuous Positive Airflow Pressure) device to provide sufficient air pressure to prevent the airway tissues from collapsing during sleep. In mild to moderate obstructive sleep apnea, a mandible repositioning device is given to improve the airway flow.

Surgical management can also be opted where there are anatomical factors contributing to sleep apnea like uvulopalatopharyngoplasty, laser assisted uvulopalatoplasty, maxillo-mandibular advancement, removal of adenoids and tonsils.

A timely diagnosis and treatment of sleep apnea can benefit the person suffering from it by improving their quality of life and avoiding risk of cardiovascular diseases.

## Silensor-sl



For those ashamed of the 'loud snoring sound' that they make when asleep, DentCare offers the perfect solution in **Silensor-sl**. The device is a success in almost all cases since the noise involved in snoring is caused by constriction of the airways. It has a compact design and does not inhibit breathing through the mouth.

With the **Silensor-sl**, the lower jaw and the tongue are held in a protrusive (forward) position which opens up the airways stopping the snoring sounds when asleep. This stops the snoring sounds, instead you get a good night's sleep and you wake up raring to go.

#### Effectiveness of Silensor-sl

The **Silensor-sl** consists of one transparent splint for the upper jaw and one for the lower jaw. The lower jaw is either held in a predetermined position or advanced by 2 connectors that are fixed laterally to the splint. It thus counteracts the narrowing of the respiratory tracts. The velocity of the inspired air decreases and so does the noise-generating vibrations of the soft tissues. With **Silensor-sl**, jaw movements are possible but with no falling back of the lower jaw. With this function, **Silensor-sl** is comfortable and at the same time, an effective snore guard.



Dr. Byju Paul Kurian (Past President, IDA Malanadu), Dr. Tariq Ansari (Guest Lecturer), Dr. Joby J. Parappuram (President, IDA Malanadu), Dr. Ciju A. Paulose (President Elect IDA Kerala), Dr. Litto Manuel (Hon. Secretary, IDA Malanadu) and Dr. Pradeep Philip George (CDE Chairman)

**CDE Programme on Clear Aligner organised by IDA (Malanadu Branch) with DentCare conducted @ Kabani Hotel, Muvattupuzha**



Shri. Saju Kuriakose (Director, DentCare Dental Lab) & Dr. Eldho Paulose

**IDA & DentCare Collaboration in KODACKK 2017 @ Windsor Castle, Kottayam**



**World Cancer Day Programme on 4<sup>th</sup> February 2017 organised by Mar Baselios Dental College, Kothamangalam in association with IDA (Malanadu Branch)**

# Real Facts about Headache

Headaches can be more complicated than most people realize. Different kinds can have their own set of symptoms, happen for unique reasons and need different kinds of treatment.

Once you know the type of headache you have, you and your doctor can find the treatment that is most likely to help and even try to prevent them.

A mild to moderate pain often described as feeling like a tight band around the head is very common. More than 10 million cases per year is seen in India

## What Are the Types of Headaches?

There are 150 different types of headaches.

The most common ones are:

**Tension headaches:** Also called stress headaches, chronic daily headaches, or chronic non-progressive headaches, they are the most common type among adults and teens. They cause mild to moderate pain and come and go over time.

**Migraines:** These headaches are often described as pounding, throbbing pain. They can last from a couple of hours to even few days and usually occurs one to four times per month. Along with the pain, people have other symptoms, such as sensitivity to light, noise, or smell; nausea or vomiting; loss of appetite; and upset stomach or belly pain. When a child has a migraine, she often looks pale, feels dizzy and has





blurry vision, fever, and an upset stomach.

A small percentage of children's migraines include digestive symptoms, like vomiting, that happen about once a month. They are sometimes called abdominal migraines.

**Mixed headache syndrome:** Also called transformed migraines, this condition is a mix of migraine and tension headaches. Both adults and children can have it.

**Cluster headaches:** This type is intense and feels like a burning or piercing pain behind the eyes, either throbbing or constant. It is the least common but the most severe type of headache. The pain can be so bad that most people with cluster headaches cannot sit still and will often pace during an attack.

They are called "cluster headaches" because they tend to happen in groups. You might get them one to three times per day during a cluster period, which may last from two weeks to three months. The headaches may disappear completely (go into "remission") for months or years, only to come back again.

**Sinus headaches:** With these, you feel a deep and constant pain in your cheekbones, forehead or bridge of your nose. They happen when cavities in your head, called sinuses, get inflamed. The pain usually comes along with other sinus symptoms, such as a runny nose, feeling of fullness in the ears, fever and swelling in your face.

**Acute headaches:** Kids get these headaches that start suddenly and go away after a short time. If there are no symptoms of other nerve problems, the most common cause is a respiratory or sinus infection.

**Hormone headaches:** Women can get headaches from changing hormone levels during their periods, pregnancy and menopause. The hormone changes from birth control pills also trigger headaches in some women.

**Chronic progressive headaches:** Also called traction or inflammatory headaches, these get worse and happen more often over time. They make up less than 5% of all headaches in adults and less than 2% of all headaches in kids. They may be the result of an illness or disorder of the brain or skull.

### What Causes Headaches?

The pain you feel during a headache comes from a mix of signals between your brain, blood vessels and nearby nerves. Specific nerves of the blood vessels and head muscles switch on and send pain signals to

**The pain you feel during a headache comes from a mix of signals between your brain, blood vessels and nearby nerves. Specific nerves of the blood vessels and head muscles switch on and send pain signals to your brain**

your brain. But it is not clear why these signals turn on in the first place.

People often get headaches because of

**Illness:** such as an infection, cold or fever. They are also common with conditions like sinusitis (inflammation of the sinuses), a throat infection or an ear infection. In some cases, the headaches may be the result of a blow to the head or rarely, a sign of a more serious medical problem.

**Stress:** Common causes of tension headaches include emotional stress and depression as well as alcohol use, skipping meals, changes in sleep patterns and taking too much medication. Other causes include eyestrain and neck or back strain due to poor posture.

Your environment, including second hand tobacco smoke, strong smells from household chemicals or perfumes, allergens and certain foods. Stress, pollution, noise, lighting and weather changes are other possible triggers.

Headaches, especially migraines, tend to run in families. Most children and teens (90%) who have migraines have other family members who get them. When both parents have a history of migraines, there is a 70% chance that their child will also have them. If only one parent has a history of these headaches, the risk drops to 25%-50%.

Doctors do not know exactly what causes migraines. A popular theory is that triggers cause unusual brain activity, which causes changes in the blood vessels there. Some forms of migraines are linked to genetic problems in certain parts of the brain.

Too much physical activity can also trigger a migraine in adults and children.

The treatment you need will depend on a lot of things, including the type of headache you get, how often and its cause. Some people do not need medical help at all. But those who do might require medications, counseling, stress management and biofeedback.

DENTCARE DENTAL LAB PVT. LTD.

## *Voice your Choice*



**Dr. Tariq Ajas Ansari**  
Consultant Orthodontist  
Hyderabad, Telangana, India

My experience with DentCare has been like that of an avid international Indian traveller who has seen the world but has missed out on seeing the Taj Mahal right at home. To say that I was mesmerized by the sophisticated and advanced technology utilized by the laboratory, would be an understatement.

The methodical process of sorting out the orders from the moment it is received, to starting the manufacturing process, has been impeccably perfected. The staff is extremely professional and dedicated to their craft. The lab maintains a high level of organization and cleanliness. There is a constant effort in perfecting existing technology and a pursuit in advancements as they happen.

The milling machines, the 3D scanners and model printers and every conceivable hardware and software are directly imported from Germany. This also includes their raw materials as well. What I was surprised to hear is that, the team gets trained in Germany and other parts of Europe so they can educate themselves on advancements in techniques so that the final product delivered is an absolute perfection. With all these benefits I fail to

understand why any doctor would want to experiment with any other lab in the world.

The lab employs a whopping 3000 well trained technicians and I was surprised to learn that most of them are veterans in the organization, which indicates a high level of employee job satisfaction.

I applaud the vision of Mr. John Kuriakose who, inspite of all the trials and tribulations in his personal life has created an organization that we all can be proud of. Like any other organization, teamwork is of the essence here, which is ably provided by the dedication and hard work of Mr. Saju Kuriakose and the marketing wizardry of Mr. Arun B. John.

Those behind the scenes also include Mr. Baby Kuriakose and the respective spouses of all the three brothers who are an essential part of the organization and demonstrate to us what a unified family can achieve if they have a common goal.

I congratulate the entire team of DentCare and wish them Godspeed!

Manufactured using German technology



Smile with Confidence

# DENTCARE ZIRCONIA SUPERLUCENT

HIGHLY AESTHETIC  
ZIRCONIA CROWNS SPECIALLY  
FOR ANTERIOR TEETH



**STRENGTH LIKE ZIRCONIA !!!**  
**TRANSLUCENT LIKE LITHIUM DISILICATE !!!**

- Flexural strength of 750 Mpa
  - Layering technique
- Made from cubic Zirconia block
- Designing and manufacturing using CAD/CAM assures outstanding marginal fit
  - Bridge up to 4 units only, with single pontic till 2<sup>nd</sup> premolar
  - Single crown in posteriors
  - **10 years warranty**

# Synergy of hard and soft tissue grafting in implant dentistry



**Dr. Neel Bhatavdekar**  
Consultant Periodontist  
and Implantologist



**Dr. Yazad Gandhi**  
Consultant Oral and  
Maxillofacial Surgeon

Pune, Maharashtra, India

## Introduction

With the advent of dental implants, alveolar defects with insufficient bone height and width have emerged as an area of great concern. Alveolar defects arising from tooth extraction or loss are considered to be the most common, with the greatest bone loss occurring in the first year after extraction.

An estimated 25% volume loss in the first year, increasing to about 40% loss in 3 years, has been reported (Monroe et al., 1968; Carlsson et al., 1967; Buser D, 2009); Alveolar ridge resorption undergoes several stages and has been categorized by Atwood (1971) under six categories which range from initial to severe ridge resorption.

Since implants are a treatment choice with well documented long term results (Cochran et al., 2009), the option of restoring a deficient edentulous ridge with dental implants has been investigated by several clinicians over the past two decades, with an evolution of different techniques using bone



grafts, membranes, titanium meshes and growth factors.

In this article, we look at the synergy of hard and soft tissue augmentation around an implant, clinical ways to achieve a predictable result, while highlighting some important hard tissue augmentation techniques with proven long term results.

### **Clinical principles for predictable bone regeneration**

When we apply the tissue engineering principles to regenerate bone, we derive a set of clinical principles to guide us by. The 'PASS' principles for predictable bone regeneration (Wang, Boyapati, 2006) provide some basic principles we need to bear in mind for any surgical site where bone augmentation is desired.

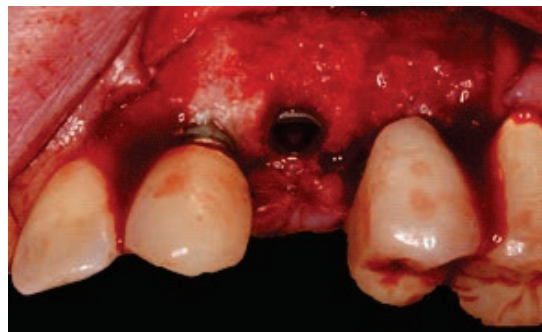
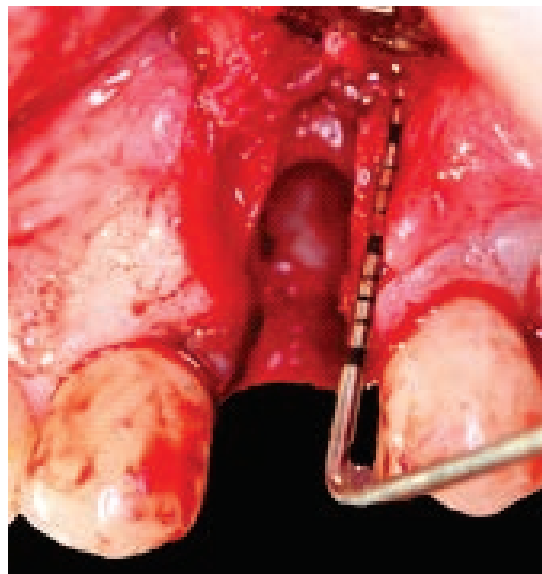
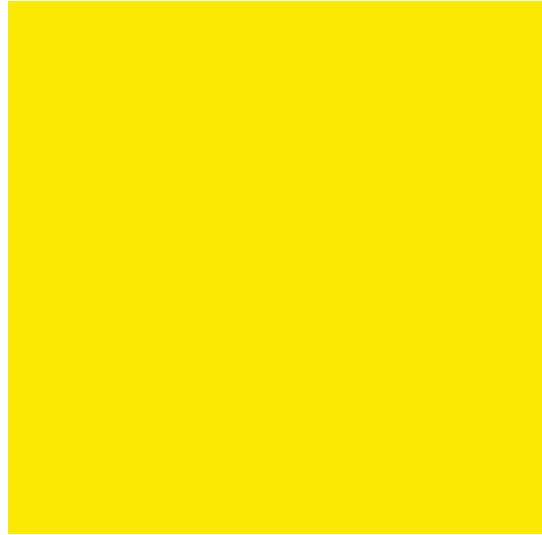
P- Primary wound closure

A- Angiogenesis

S- Space maintenance

S- Stability of wound

In addition to the above principles, a fourth principle ought to be the presence of tension free closure, and minimal stress on the underlying graft. Existence of stress on the flap or the graft can lead to early flap dehiscence, change in graft shape, and an eventual compromised result. Hence, the PASS principle could be modified to include 'T' for tension-free closure (PASST).



*Fig. 1: After tooth extraction, the buccal wall dehiscence is observed. Using principles of predictable bone regeneration, bone has been regenerated, to enable implant placement 4 months later.*

## Options for ridge augmentation

### 1) Block grafting:

The use of corticocancellous bone grafts for ridge augmentation in implant dentistry was first reported by Breine and Brånemark (Buser, 2009). Extraoral sources were primarily used for the reconstruction of atrophic arches, with immediate or delayed implant placement; however, their use is now reserved for very large alveolar defects, since they have an inherent disadvantage of increased morbidity and often greater expense in hospitalization.

Intraoral graft sites such as the mandibular symphysis, body and ramus are often used, with advantages of decreased morbidity, convenient surgical access, lack of cutaneous scar formation, and favorable bone quality (Buser D, 2009).

### 2) Particulate bone grafting:

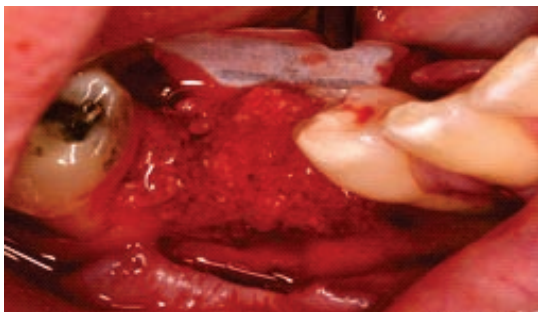
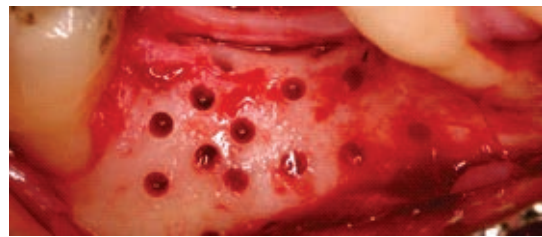
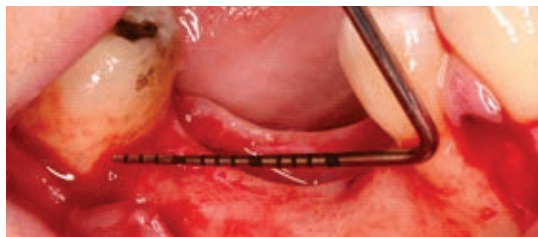
The choice of doing either a block graft versus a particulate graft depends on factors such as patient

preference, secondary donor site, morbidity and anatomy of the ridge (eg. a buccal concave defect responds quite well to particulate graft, since it can be well-contained).

The surgical procedure for the particulate graft placement is similar to the block grafting, except for the preparation of the donor site (symphysis / ramus). The graft material can consist of autogenous bone, an allograft (such as demineralized freeze dried bone), alloplast or a xenograft. Particulate grafts can often be layered, using different graft materials next to the implant, and over the first layer.

### 3) Ridge expansion:

This technique is a good alternative to ridge augmentation procedures, wherein the available bone is expanded to accommodate the diameter of the implant. Several techniques have been described, including the osteotome technique, the edentulous ridge expansion technique and the piezoelectric scalpel expansion technique (Vercellotti, 2000). A basic necessity for a ridge

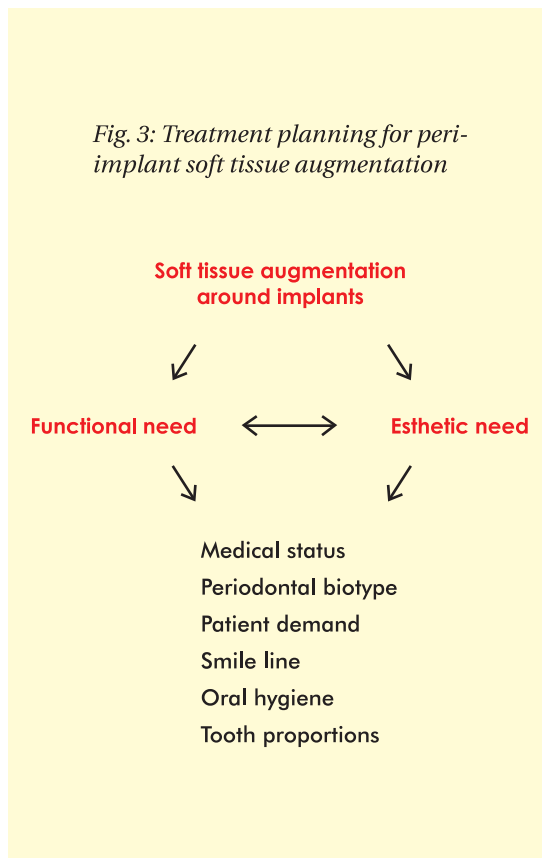


*Fig. 2: Siebert Class III deficiency (combination horizontal and vertical ridge deficiency). Decortication performed to elicit rapid acceleratory phenomenon and angiogenesis. Particulate graft comprising a mix of autogenous and allograft placed with a Ti-reinforced Gore-tex membrane for space maintenance. Gore-Tex sutures used for primary flap closure.*

expansion technique, however, is the availability of some cancellous bone, since trying to split a ridge that comprises solely of cortical bone will most likely lead to fracture.

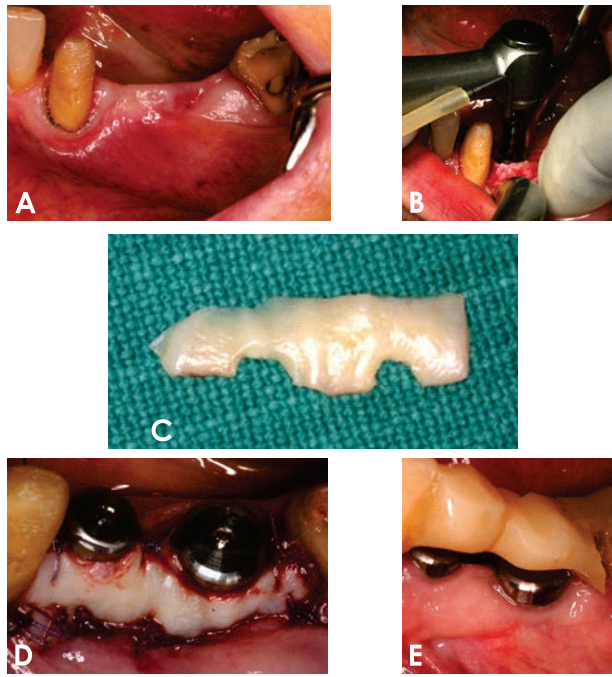
### Synergy of soft tissue grafting and bone grafting

The crucial aspect of soft tissue grafting, in conjunction with hard tissue augmentation, is whether there is adequate keratinized tissue in the region. In the absence of adequate keratinized tissue, procedures such as horizontal or vertical bone augmentation would be difficult and chances of flap dehiscence increase. In this scenario, it might be preferable to augment soft tissue first and then augment hard tissue using the procedures described above.



*Fig.4:*

**Soft tissue augmentation around an implant can be done utilizing either a free gingival or connective tissue graft**



*Figure 4: a) Mandibular site demonstrating inadequate keratinized mucosa, planned for implant restoration. b) Implant placement followed by free gingival graft harvest from palate. (c) FGG contoured to fit around implants and sutured in place. (d) Post-op healing at 1 month, demonstrating good band of keratinized tissue around both implants. (e) Also note about 20 % graft shrinkage at the distal implant, highlighting the need to over-augment. Fractured temporary bridge was subsequently replaced. (Soft tissue surgery done by Dr. Neel Bhatavdekar)*

### Conclusion

Our concepts about soft tissue management around implants have greatly changed over the past two decades. We are in an exciting era where we have a better understanding of the anatomical differences between peri-implant soft tissue and the periodontium, a better ability to utilize conventional surgical techniques and the eagerness to embrace promising bioengineering approaches for the benefit of our patients.

Although long term follow-up and more randomized controlled trials are necessary to demonstrate long term prognosis of some of the recent techniques, researchers have provided us good published data to enable an evidence-based approach to treatment decisions as regards peri-implant soft tissue enhancement.



*International Women's Day (March 8) is a global day celebrating the social, economic, cultural and political achievements of women. The day also marks a call to action for accelerating gender parity*

## International Women's Day

International Women's Day (March 8) is a global day celebrating the social, economic, cultural and political achievements of women. The day also marks a call to action for accelerating gender parity.

International Women's Day (IWD) has been observed since the early 1900's – a time of great expansion and turbulence in the industrialized world that saw booming population growth and the rise of radical ideologies. International Women's Day is a collective day of global celebration and a call for gender parity.

No one government, NGO, charity, corporation, academic institution, women's network or media hub is solely responsible for International Women's Day. Many organizations declare an annual IWD theme that supports their specific agenda or cause, and some of these are adopted more widely with relevance than others.

The world of work is changing, with significant implications for women. On one hand, we have globalization, technological and digital revolution and the opportunities they bring, and on the

other hand, the growing informality of labor, unstable livelihoods and incomes, new fiscal and trade policies and environmental impacts—all of which must be addressed in the context of women's economic empowerment.

The Charter of the United Nations, signed in 1945, was the first international agreement to affirm the principle of equality between women and men. Since then, the UN has helped create a historic legacy of internationally-agreed strategies, standards, programmes and goals to advance the status of women worldwide.

Over the years, the UN and its technical agencies have promoted the participation of women as equal partners with men in achieving sustainable development, peace, security and full respect for human rights. The empowerment of women continues to be a central feature of the UN's efforts to address social, economic and political challenges across the globe.

Thus International Women's Day is all about unity, celebration, reflection, advocacy and action – whatever that looks like globally, at a local level.





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Editor in Chief, The DentCare  
DentCare Dental Lab Pvt. Ltd.  
NAS Road, 130 Junction  
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# LET THEM GROW WITH **NATURE!!!**



Remember, as kids we always loved to play outside with friends, spend hours making mud delicacies, splashed in the rain and always were connected with nature. But now things have changed.

Kids today are hitched to technology and spend most of their time staring at TV screens or playing with smartphones and tablets. As a result, many children are experiencing a 'nature deficit'.

In this competitive world, some may insist their kids to sit and learn all the time not knowing the fact that playing outdoor benefits to improve the concentration in learning their lessons. Kids who grow up experiencing natural environments may benefit developmentally and have a heightened environmental awareness as adults than those who don't," said lead researcher Danielle Shanahan from University of Queensland in Australia. They will be more physically active, more creative and self-motivated.

"Playing with peers, away from grown-ups, is how children learn to make their own decisions, control their emotions and impulses, see from others' perspectives, negotiate differences with others, and make friends," says Gray, an expert on the evolution of play and its vital role in child development.

Many studies reveal that electronic gadgets require directed attention that leads the children to ignore distractions and drains their brains. Nature will craft an enchanted kind of attention which is absolutely stress-free that fills pleasure in the minds of the kids.

In today's busy, competitive world, our children are mostly domesticated spending lot of the time at school and in playing tech toys. Therefore, before selecting any tech gadgets for kids just remember that if they are not spending enough time in nature, it will affect their overall development and well-being.

Simply sitting on the couch eating their favourite fries and watching cartoons will make them obese. Exploring nature involves more exercise, making the kids active which is good for them. Exercise seems to make them more focused, which is especially beneficial for kids with Attention Deficit Hyperactivity Disorder (ADHD). Kid's natural drive of asking questions about the earth and its life are cultivated by allowing them to play outside. Nature fills a distinctive sense of curiosity in kids, making them to think.

Sometimes in today's nuclear families parents will not let their kids play outside as they will be more protective. Fear of diseases or dangers of playing outside all keep them restricting their kids from exploring the world.

Playing with mud, sand, water, leaves all will stimulate the immune system of our young ones. Instead of boring repetitive indoor games, connecting with nature helps the kids to develop better linguistic and teamwork skills. They will be physically more active and less likely to be obese.

Most of the studies done in this area agree that those kids who play outside are smarter, less stressed and happier. They will be really enjoying their life. Not only kids, adults also need to spend their time with nature, a regular 30-minute walk enjoying the scenic beauty can help reduce depression and high blood pressure while enhancing mental health.

So encourage yourself to take a break between the hectic schedule and try to spend enough quality time in natural spaces. Exercise outside instead of going to the gym and spend as much of your weekends as you can out in nature.

Let us be a good example to our kids and introduce them to the natural world.



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# DENTAL SCALING:

## Truth for your Tooth

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### **Q: What is dental scaling?**

**A:** Scaling is a fairly common procedure in dentistry that involves the removal of plaque (soft, sticky, bacteria infested film) and tartar (calculus) deposits that have built up on the teeth over time.

### **Q: Why is scaling required?**

**A:** The root cause of every gum disease is the bacterial plaque which when not properly removed hardens to form calculus. The more calculus you have, the more your gums and bone underneath recede from the teeth leaving them



**Dr. Saubhik Ghosh**  
Consultant Periodontist and  
Implantologist  
Salt Lake, Kolkata, India

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**Scaling is a fairly common procedure in dentistry that involves the removal of plaque (soft, sticky, bacteria infested film) and tartar (calculus) deposits that have built up on the teeth over time**

---

weak. Removal of mature plaque and calculus is not possible with normal brushing. Also the toothbrush does not reach at all the areas of the teeth and the oral cavity. Hence, scaling is required to remove plaque and calculus so that your gums and teeth stay healthy.

**Q: What are the common myths about scaling?**

1. **Myth:** Scaling causes weakening and mobility of teeth

**Actual fact:** Scaling does not make teeth loose, they have already become loose due to calculus which has accumulated over a long period of time. Only the removal of patch of calculus has set in the mobility. This happens at a very late stage but subsides once the health of your teeth and gums is restored by scaling.

2. **Myth:** Gaps are increased by Scaling

**Actual fact:** As the tartar which occupies the space in between the teeth is removed by scaling, there is a feeling of empty space in between the teeth but these spaces are gradually covered by the healing gums.

3. **Myth:** Teeth become sensitive

**Actual fact:** As the tartar is removed, the concealed part of the teeth is exposed to the oral environment thereby causing mild to moderate sensitivity to the teeth, which is transient. The sensitivity vanishes in a day or two and most of the patients do not even experience this sensitivity.

4. **Myth:** Scaling destroys the tooth enamel

**Actual fact:** Enamel is not affected at all if scaling

is done properly.

**Q: How many appointments are required for a full mouth scaling?**

**A:** The number of sittings required for a complete mouth scaling depends on the amount of stains and calculus present in your oral cavity. This may range from one to four sittings.

**Q: How regularly should a patient get scaling done?**

**A:** Normally scaling needs to be done every six months to a year, depending on the patient's capability to maintain his / her oral hygiene after scaling.

**Rest assured that scaling will not weaken your teeth, rather it will make them stronger.**



## BEAT THE EXAM HEAT WITH RIGHT FOOD

Proper diet is very important for a healthy mind and body. This is very relevant during the exam time especially when kids are under pressure and stress. Many studies have proven that unhealthy meals increase stress levels.

Right food will improve the concentration and memory power too. So make sure to pick the best food for your special ones to promote calmer state of mind and score high in their exams.

To have a great start, you should never skip breakfast. To boost your memory power and



concentration your brain needs enough energy. So eat a nutritious breakfast to keep a steady supply of glucose throughout the day. Include sufficient amount of fruits and green leafy vegetables which provide Vitamin C, B 6, Zinc, Magnesium, Potassium and Amino acid tyrosine which are important for the production and functioning of stress fighting hormones.

Eat smaller, frequent meals to ensure a balanced stream of energy. Avoid large meals and junk food. Drink lots of water and keep your body always hydrated. Otherwise you will feel lethargic, irritable and tired which may make it more difficult to study and perform to your best.

Reduce intake of sweetened and caffeinated beverages as they can act as mild diuretics. It will also upset the blood sugar level that affects the concentration level. Choose whole grains like oats, barley, brown rice and whole wheat. Dry fruits, salads, soups and yogurt can be good snack options.

Nourish your brain with antioxidant rich food that reduces the cell damage in the brain. Omega 3 fatty acids are good for brain and their good sources include flaxseeds, walnuts, fish, mustard seeds etc.

Follow these simple tips to help you eat your way to triumph!





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