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THE DENTCARE

Your Monthly Health Care Magazine

Brightening smile the world over

Mouth Ulcers:
Revisited

Troublesome
Mesiodens

The Journey
From
Famine To Feast

October 11:
International Day
Of The Girl Child

DentCare
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October is the time to celebrate 'The DentCare'.

There is only one reason we have come this far. There is only one reason we strive to go ahead.

The reason beyond doubt is you, **Dear Reader**.

From the moment we nurtured this dream three years ago, to the milestone we have crossed this month, the journey has been resplendent. Our dream is a real life experience today and has the making of a memorable story that has you written all over it.

Your monthly health care magazine over the last 36 issues has blossomed into a bestseller, brightening lives and smiles world over. We have forayed into the minds of the uninitiated and have provoked the thoughts of the more discerning.

Herein lies our moment of reckoning.

For none of this is possible without the benevolence of the Almighty.

At DentCare too, His abundant blessings are evident in the many lives that have been touched by His perpetual Grace. That is our blessed reassurance and immense fortitude in the days to come.

This edition is even more special as it adds value to our presence at the World Dental Show in Mumbai – an event that heralded our launch.

The DentCare has grown in strength over the years, backed by our constant urge to bring value to the pages that you behold. I am certain you would have witnessed the transformation of content and design...and strongly believe that the best is yet to come.

This print is replete with info that is professional, personal and practical – wholesome knowledge that would add to your overall health and well being.

Our intent is thus, focused and purpose driven at The DentCare.

As much as you would love to savor these thoughts without further delay, I would be grateful if you would spare a valuable moment in celebrating the cause that we espouse and continue to support us with your everlasting warmth.

Yours truly,

Prof. (Dr.) George P. John

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Dear Reader,

It gives me immense joy and pleasure to write to you on the occasion of the Third Anniversary of 'The DentCare'.

What makes this milestone all the more ecstatic is the fact that DentCare Group of Laboratories is at the threshold of its 30th year of operations and have very recently initiated its business in United States of America as well.

We are extremely glad to witness how this literary platform in the form of 'The DentCare' magazine is being used extensively by doctors to refresh their knowledge and successfully share it with their peers and patrons for the benefit of their patients.

Having said that, let me reaffirm our Vision is to impart knowledge, spread awareness and to increase openness and receptivity towards the necessity of overall health of any individual. Effective usage of ultramodern technology and machinery has always been the mainstay of DentCare. We vouch to bring you updates about the same in the days ahead for enhanced patient care and brightened smiles.

At DentCare, we are ever indebted to you, our doctors and readers, for the kind support extended to us throughout. Your feedback is highly valued and we thank you for your warm gestures of care!

May I please request you to kindly consider reading my story titled – '***The Journey from Famine to Feast***' – a long story put short on how Jesus Christ transformed my life!

John Kuriakose (Managing Director, DentCare Dental Lab Pvt. Ltd.)

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THE JOURNEY FROM FAMINE TO FEAST

Starting from nothingness, a young boy from a remote village in Kerala was lifted up in life simply because of his faith and commitment to Lord Jesus Christ.

Mr. John Kuriakose – Founder and Managing Director of DentCare Dental Lab Pvt. Ltd. – started DentCare as an enterprise at the age of 20 in a small 290 square foot area at Muvattupuzha, Kerala, India.

Today, it is a world class dental laboratory spread across 175,000 square feet with a staff strength of over 3000 (of which 2500 are skilled technicians) and a clientele of over 20,000 benefited dentists.

John comes from a very poor family which faced the bitterness of poverty. Desperation and disappointment darkened his life and his future seemed bleak without hope. In 1983, John completed SSLC and at this young age of 14, he was forced to work as a rubber tapper to support his family.

John's mother too was distressed by their poverty and the mental illness of John's father made matters worse. She was deeply saddened by their ill fate and questioned life and the very existence of God. She had attempted to end her life through suicide on three occasions before she got a chance to attend a prayer meeting

at Christian Revival Fellowship (CRF), which is an interdenominational fellowship of believers under the Presidentship of Prof. M. Y. Yohannan, former Principal, St. Peter's College, Kolenchery, Kerala.

Fortunately, Jesus Christ touched her life that day and she returned with a peaceful heart. This change in his mother inspired John also to listen to the sermons of Prof. M. Y. Yohannan. Later, John's father, who was under medication with a daily dose of 12 tablets, was miraculously cured of his mental illness the very first day he attended the prayer meeting after being filled with Divine Peace.

“This was the turning point in John's life – the beginning of a journey from famine to feast, from nothingness to fullness, from bitterness to blessedness and from tears to triumph.

John surrendered his entire life to LORD Jesus Christ. Slowly, happiness and peace crept into the family. He had heard from the sermons of Prof. M. Y. Yohannan that the Lord Jesus Christ lifts up the poor and the meek and that he too should dream high. He was offered a job as an attender in a dental clinic and he worked there faithfully, with his entire heart and soul.

This was the turning point in John's life – the beginning of a journey from famine to feast, from nothingness to fullness, from bitterness to blessedness and from tears to triumph. DC

MOUTH ULCERS: Revisited

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Mouth ulcer is the loss or erosion in the moist, pinkish-red lining termed as mucous membrane, inside the mouth. They are often painful and uncomfortable making eating, drinking, chewing or at times, even speaking difficult. However, most of them are usually harmless.

Ulcers have a characteristic base, margin and an edge which may present a hint for the clinician towards its diagnosis. The size may vary from a few millimeters (mm) in diameter to several centimeters (cm).

Mouth ulcers are often seen as round or ovoid sores and may occur in different areas inside the mouth including the tongue, gums, lining of the cheek, palate and lips. They resemble a shallow crater in the lining and are yellow, gray or red in color. There may be more than one ulcer at a time and may sometimes recur.

Causes of ulcers

The two most common causes of mouth ulcers are minor injuries or trauma to the lining of mouth and recurrent aphthous ulcers.

Minor injuries may result due to biting on a hard object, ill-fitting dentures, sharp tooth or accidental cheek / tongue bite. These ulcers resolve by themselves when the source of injury is removed.

Recurrent aphthous ulcers are of three different types; minor, major or herpetiform.

The exact cause of aphthous ulcers remains unknown. However, the immune system

attacking the mucosal lining of the mouth, hormonal imbalances, food hypersensitivity and minor injuries are usually the implicated reasons.

They are very common (affecting about 20% of the general population) and are characterized by recurrent bouts of mouth ulcers. They are known to decrease in severity and frequency with age.

Minor form of recurrent aphthous ulcers ranges between 2 to 10mm in diameter and heals within 7 to 10 days. These are usually found on the lining of the cheeks, lips and tongue.

On the other hand, major aphthous ulcers are more than a centimeter in diameter and most of the time, healing takes more than two weeks. In addition to the sites described above for the minor form, the major variant of aphthous can also be found on the gums.

Herpetiform type of ulcers are less common compared with other types of aphthous ulcers and are seen in 5 to 10% of the cases. They are usually small, 1 to 2mm in diameter and can be seen affecting more than one area of the mouth at a time.

Mouth ulcers are often seen as round or ovoid sores and may occur in different areas inside the mouth including the tongue, gums, lining of the cheek, palate and lips.



Sometimes, gastrointestinal disorders like inflammatory bowel disease, Coeliac or Crohn's disease result in mouth ulcers which may resemble aphthous ulcers.

Use of medications including antihypertensives, antimalarials, antibiotics and non-steroidal anti-inflammatory drugs may lead to mouth ulcers. However, these ulcers subside once the medication is withdrawn.

Mouth ulcers are also observed due to infections like Primary Herpetic Stomatitis, Herpes Zoster infections, Actinomyces, Tuberculosis, HIV and Syphilis.

Skin disorders eg. Lichen planus, may give rise to ulcerations in the mouth. Additionally, nutritional deficiencies including Vitamin B, Folic Acid and Iron deficiency may also result in mouth ulcers. Moreover, allergy to certain foods or toothpaste may lead to ulcers.

At the same time, it is important to remember that cancers of the mouth may present as a mouth ulcer that does not heal. Therefore, it is

extremely vital to identify the underlying cause of these ulcers so that appropriate therapy can be planned at the right time.

Stress and ulcers

Stress affects the immune system of the body and this has led some researchers to believe that mouth ulcers may be seen on account of stress. There have been reports suggesting occurrence of mouth ulcers during periods of stress like during examinations.

However, some researchers opine that stress and mouth ulcers are not related. Thus, there exists contradicting evidence with respect to the relation between stress and mouth ulcers. It is advisable to regularly look for the symptoms of mouth ulcers and get an oral examination done especially during stressful periods.

Signs and symptoms of ulcers

A round sore or sores may be found in the lining of the mouth. This area is seen as a shallow crater or depression and surrounded



usually by a reddish and/or swollen border. The ulcers are painful and hence difficulty in eating, drinking and speaking may be experienced.

At times, there may be problems with chewing and tooth brushing. Intolerance to hot, spicy or sour foods is the most often reported complaint due to mouth ulcers. Some cases of mouth ulcers also exhibit the presence of increased salivation in the oral cavity.

If the ulcers are due to systemic diseases like immune disorders, gastrointestinal disturbances or nutritional deficiencies, signs and symptoms of the concerned disease are seen as well.

Diagnosis of ulcers

Ulcers due to different causes may have similar clinical appearance. Successful treatment of a mouth ulcer depends on early diagnosis and prompt treatment.

As ulcers are often associated with pain, patient may be able to spot a mouth ulcer but consultation with a dentist is essential to diagnose, identify the underlying cause and institute an appropriate treatment.

A thorough history-taking and a detailed clinical examination including the location, size, number, associated signs, border and edge of an ulcer is extremely crucial to reach a provisional diagnosis.

Definitive diagnosis can be obtained either at the first visit or at times, after performing additional diagnostic tests (eg. blood tests to rule out infections or removal of a small tag of tissue for microscopic examination). Sometimes, a dentist may have to refer the patient to an appropriate specialist, if it is deemed necessary to utilize additional expertise.

Treatment of ulcers

Treatment of these ulcers can be divided into two types, home-care and doctor-care.

Home-care includes

- ☐ Avoid hard, spicy, hot and sour foods until the ulcer heals
- ☐ If the food allergen is known, avoid the same
- ☐ Tongue has a natural tendency to explore the ulcer area. Consciously avoid the contact of tongue with the ulcer
- ☐ Drink plenty of fluids
- ☐ Take a well-balanced diet
- ☐ Use soft tooth brush to avoid pain while brushing
- ☐ Maintain good oral hygiene
- ☐ If ulcers seem to be associated with stress, reduce stress and anxiety

Doctor-care includes

- ☐ Identification and treatment of the underlying cause
- ☐ Symptomatic treatment
- ☐ Use of antimicrobial mouthwashes
- ☐ Use of analgesic gels
- ☐ Use of steroid gels or tablets

Frequently asked questions

1 Are mouth ulcers common in a particular age group?

Mouth ulcers can occur at any age, in both males and females. As discussed before, recurrent aphthous ulcer decreases in frequency with age.

2 Does trauma or minor injury to the mouth lining always result in ulcer?

No, ulcers are only caused when the injurious agent leads to loss or erosion of the lining of the mouth.

3 Are mouth ulcers always seen in cancer of the mouth?

No, cancer of the mouth is only sometimes preceded by a mouth ulcer which does not heal either on its own or after other treatment is provided.

4 What features increase the suspicion that an ulcer could be a possible presentation of cancer of mouth?

An ulcer that does not heal for around three weeks, thickening of the borders of the ulcer, associated tobacco and/or alcohol habits with the patient, no past history of mouth ulcers, no local or systemic factors that could potentially cause ulceration, previously diagnosed pre-cancerous lesion in the mouth or previous history of mouth cancers are some of the features that suggest a cancerous ulcer.

5 If my medications lead to an ulcer, should I stop them?

It is strongly recommended to see your dentist if you feel medication is the prime cause of the ulcer. If the medications have been prescribed by a dentist, he/she will shift to alternate drugs or change the dosage of the current drugs. However, if the medications have been prescribed by a physician, a dentist will refer you to the concerned doctor to consider possible alternate medications.

6 When do I see a dentist?

When the ulcer does not heal within a couple of weeks, it is recommended to see a dentist. A dentist is professionally trained with the skills and expertise to diagnose mouth ulcers. However, at times, a dentist may refer the case to a specialist should such an intervention seem necessary.

7 Do mouth ulcers heal by themselves?

Mouth ulcers are usually harmless and do heal by themselves but it is strongly advised to follow self-care to reduce the intensity of pain and encourage a faster recovery. But, if the ulcers are due to infections or systemic disorders, they heal once the disease is treated.

8 Can mouth ulcers, once completely treated, recur?

It depends on the underlying cause of the ulcer. An ulcer due to minor injuries will not recur once an injurious agent is removed. But a recurrent aphthous ulcer has a tendency to recur. An ulcer due to infections, medications or systemic disease will not recur once the cause is appropriately treated. ^{DC}

Day Of The Girl Child

"Girls of today are the Women of tomorrow."

In order to achieve true women empowerment, it is important that we begin with the girl child.

Discrimination against girls in India has been going on since ages. Even today, there are several sections of Indian society where the girl child is treated as a burden.

In the Population Census of 2011, it was revealed that the population ratio in India is 918 females per 1000 males.

In such a scenario, the role of the Government and Non-Governmental Organizations (NGOs) becomes more important in order to ensure that girls are allowed to be born and flourish in life.

While several privileges are given to boys, girls are often restricted to the confines of the household and given very little or no opportunity to learn and grow in life. It is a matter of great shame that cases of female infanticide are still being reported.

Ms. Maye Benjamin
Psychologist and Family
Counsellor
Kochi, Kerala, India

Biologically, childhood is the stage between infancy and adulthood. The existence of human race on the earth is impossible without the equal participation of both man and woman. Both are equally responsible also for the existence of human race

on earth as well as growth and development of any country.

However, there is no doubt in saying that a woman is more necessary than a man as without her we cannot think about the continuation of the human race as she

gives birth to humans.

So, do not kill a girl child. She should be saved, respected and given equal opportunities to go ahead. Girls are the most valuable resources of root creation and they help in shaping the destiny of any civilization.

The girl child
is a gift of God

Educate a boy, you educate an individual.

Educate a girl, you educate a community.

Girls are equal in any field and they display strength and determination in no lesser term than any boy.

Girls are more obedient than boys and much more caring of their parents and devoted to their job. It is quite easy to handle a girl child than a boy child at all stages of upbringing. They follow advice and are much more docile than boys.

It is a proven fact that girls mature faster than boys, physically as well as mentally. They develop a better understanding of the surroundings than boys.

A woman can be a mother, wife, daughter and sister. She is passionate, courageous and generous. A girl performs her duties, both personal as well as professional, with fidelity which makes her extra special.

Good parenting is very important for a girl child. This is how your daughter can be helped to become her best and a well-rounded person.

During a young age itself, plant the seed of confidence in her. Prepare her for the teenage years. When she grows into a

young woman, you must make sure that she can weed out all the bad seeds and know to defend herself, even if she ever ends up in a dangerous situation.

India is growing dynamically in every field. Today the boom in economy, innovative technologies and improved infrastructure has become the nation's pride. The country has witnessed advancement in all fields but bias against a girl child is still prevailing in the country.

All the rules and regulations should be tough and active against those who are involved in crime against girls.

The Prime Minister of India, Narendra Modi, has launched a nationwide campaign named "Beti Bachao – Beti Padhao", which means Save the girl child – Educate the girl child.

This campaign was launched to spread cognizance in the society against female feticide as well as for women empowerment through education. It is a Government of India initiative that aims to generate awareness and improve the efficiency of welfare services meant for women.

The girl child is a gift of God. Give her a chance and she will make you proud with her triumphs. 

"Save a girl child; Save tomorrow."

Celebrate The
International Day Of
The GIRL CHILD

The International Day of the Girl Child is a United Nations observance that is held annually on October 11. It is intended to promote the girl child's rights and highlights issues concerning gender inequalities that remain between girls and boys.

"A girl child brings joy; she is no less than a boy."

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
- 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** 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.

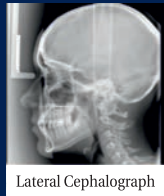


Digital Case Records

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 Orthopantomogram (OPG) along with Lateral Cephalograph would suffice.



Orthopantomogram



Lateral Cephalograph

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



Upper occlusal view



Lower occlusal view



Left Lateral view



Right Lateral view



Anterior view

Extraoral

1. Lateral view
2. Anterior view

How does it work?

The treatment consists of a revolutionary system which 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.

Wear schedule

Each set of DentCare Clear Aligner is to be used for two weeks. You should not

wear the next Aligner before the stipulated time.

You may feel that the Aligner you are already wearing has become loose and is no longer moving your teeth. Roots may take longer to catch up with the crown of the tooth. Change your Aligner as per your dentist's instructions or as instructed in the Aligner's wear schedule.

How do you wear them?

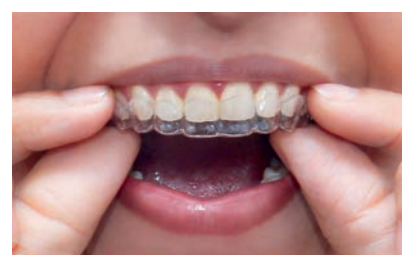
- Soap-wash your hands thoroughly before handling the Aligners.
- Handle only one Aligner at a time.
- Never bite the appliance into place. Bites can distort or break your Aligner. Always use fingers to place the Aligners in your mouth.
- When inserting, gently push the Aligners over your front teeth. 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. ^{DC}



HEALTHY FOOD HEALTHY MIND

Dr. Shahul Ameen

Chief Consultant Psychiatrist
Department of Psychiatry
St. Thomas Hospital
Changanassery, Kerala, India



Though most people are cognizant of the negative effects unhealthy diet like fast food or junk food can have on our body, not many are aware of the harm such a diet can inflict on our minds.

Like the rest of our body, our brain too relies on key nutrients from healthy food to properly perform its duties. Regular consumption of fast or junk food creates hindrances in this process and leads to various adverse mental consequences.

The Brain and unhealthy food

The brain requires a balance of essential fatty acids like omega-6 and omega-3 to function properly.

Unfortunately, most of the “modern” recipes contain too much omega-6 and not enough omega-3. Such an imbalance has been linked to many mental health problems.

Besides, the trans fats found in many fast food items have been shown to displace these omega fatty acids from brain cells and negatively affect brain health.

In one study, older adults who consumed a “western diet” for four years were found to suffer from higher rates of mood disorders and to have significantly smaller left hippocampus, a brain region extremely important for memory formation.

In addition, pregnant women who eat plenty of unhealthy foods such as refined cereals, sweet drinks and salty snacks have been found to give birth to children who

suffer from higher rates of behavioural problems like tantrums and aggression.

High-sugar diets can induce a run-away inflammation in the brain and trigger a cascade of other metabolic changes that can ultimately harm its functions.

Psychiatric disorders like Attention-deficit hyperactivity disorder (ADHD), depression, Alzheimer's disease and Schizophrenia have been linked in various studies to a rise in junk food consumption and the regular intake of a diet deficient in the above mentioned essential fatty acids and certain vitamins and minerals.

High-sugar diets can induce a run-away inflammation in the brain and trigger a cascade of other metabolic changes that can ultimately harm its functions.

Inflammation has been found to play a role in a range of Psychiatric



disorders – from depression and Bipolar disorder to possibly Autism, Schizophrenia and Alzheimer's disease.

Besides the high sugar content, other ingredients of junk food those are not good for the brain when present in high amounts include caffeine, pesticides, refined carbs and additives such as Monosodium glutamate (MSG) and Aspartame. Concern about development of addiction too is there.

A crowded market place has been forcing food companies to manufacture and sell addictive foods packed with sweeteners, salt, fat and refined carbs, and often filled with calories.

Another issue is that, those who eat fast food on a regular basis are less likely to eat essential foods, such as fruits and vegetables, which contain important vitamins and nutrients that significantly contribute to brain health.

There are certain secondary consequences too. For example, unhealthy food habits can lead to weight gain, which in turn can give rise to stress, anxiety and negative thoughts about oneself.



Major constituents of a healthy brain diet would include fruits, vegetables, legumes, nuts, fish, lean meats and healthy fats such as olive oil.

Good food, Therapeutic food

Experts also recommend certain foods as most suited for brain health. Major constituents of a healthy brain diet would include fruits, vegetables, legumes, nuts, fish, lean meats and healthy fats such as olive oil.

Good sources of omega-3 fatty acids, such as fish, might help fend off psychiatric illnesses like psychosis and depression. Green tea and antioxidant-rich fruits and vegetables, like tomatoes and green leafy vegetables, may prevent dementia.

Along with medications and psychotherapy, diet is becoming an important component in the management of mental illnesses. For example, depression, a major mental illness that affects 10 – 15% of

the population, is thought to be the result of deficiency in the neurotransmitter, Serotonin.

Serotonin is produced in our bodies from Tryptophan. For patients with depression, “food therapy” with intake of food rich in Tryptophan (like chicken, eggs, pineapple and cheese), essential fatty acids (like fish and green leafy vegetables) and cutting down on junk food have been shown to result in symptomatic improvement.

Gut and Brain

100 trillion bacteria, fungi and other microorganisms colonize our bodies and make critical contributions to formation and function of our digestive and immune systems. Lots of recent studies suggest that poor eating habits disrupt these organisms and thereby adversely affect the brain.

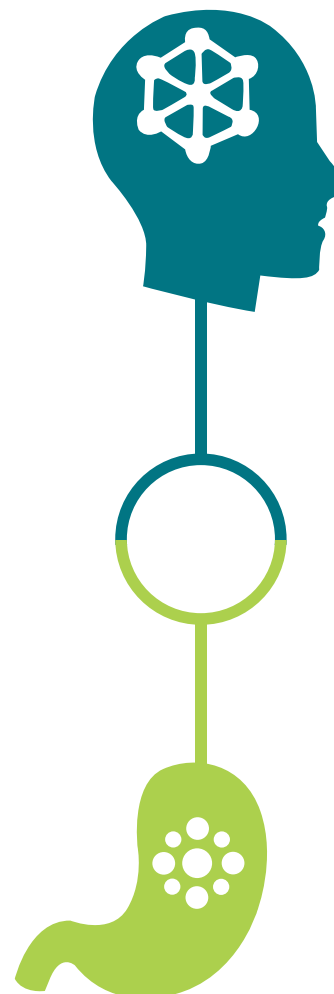
In one interesting study, when a 23-year-old student limited his diet to fast food for 10 days, about a third of the bacterial species in his gut got wiped out and he felt lethargic and down.

About 90% of our Serotonin, the neurotransmitter tied to depression and other psychiatric disorders, is produced in the gut when certain microorganisms interact with cells lining the gastrointestinal tract (some microbes even produce a portion of Serotonin themselves).

Gastrointestinal inflammation produced by high sugars in junk food can deplete our supply of Serotonin.

By-products of inflammation also convert Serotonin's metabolic precursor, Tryptophan, to a compound that generates neurotoxic

BRAIN Impacts GUT



GUT Impacts BRAIN

metabolites linked with Depression, Schizophrenia and Alzheimer's. On the other hand, diets that include lots of fibre, fermented foods and fish promote the growth of healthy microorganisms. ^{DC}



Brain
Drain

MIDNIGHT BINGING IS A BAD IDEA!

Snacking on potato chips, chocolates or reheated leftovers late at night might damage the brain. It will disturb your natural sleep pattern and damage the areas that deal with memory and learning.

Researchers believe that abnormal food schedule impairs the Hippocampus – the part of the brain, thought to be the center of emotion and memory.

So, the next time you feel like having a late night munch, think about what it might do to your brain.

TROUBLESOME Mesiodens

Introduction

Mesiodens is the most common supernumerary tooth, occurring in 0.15% to 1.9% of the general population.

Given its high frequency, the general dentist should be knowledgeable about the signs and symptoms of Mesiodens and its appropriate treatment.

The cause of Mesiodens is not fully understood, although proliferation of the dental lamina and genetic factors has been implicated.

Mesiodens is an extra tooth that develops between the upper incisors. It is usually conical in shape, smaller than normal incisors and has short roots as well.

A Mesiodens can be completely formed or it can be just a portion of a regular tooth. Only about 25% of Mesiodens teeth erupt in the mouth, with the rest remaining in the jaw bone.

Mesiodens can cause delayed or ectopic eruption of the permanent incisors, which can further alter occlusion and appearance.

Dr. Nikul Jasani
Consultant Orthodontist
Surat, Gujarat, India



Problems caused by Mesiodens

Dental problems associated with Mesiodens include the following:

Crowding

Since Mesiodens is an extra tooth, it usually leads to crowding in the jaw due to lack of enough space.

Impaction

The presence of an extra tooth may prevent the eruption or even cause malposition of the adjacent teeth.

Resorption of adjacent teeth

If a Mesiodens is unerupted and its growth is towards an adjacent tooth, it can cause physiological resorption of the adjacent tooth, when its crown attempts to erupt out of the mouth.

Follicular cyst

An unerupted Mesiodens stands a high risk of developing follicular cysts around its unerupted crown. These cysts need to be removed surgically.

Case reports - Discussion

Case – 1

A 14 year old patient visited the dental clinic with chief complaint of sharp teeth in his mouth. Patient wanted his sharp teeth to be removed and replaced with prosthesis.

Instead, we advised him to get the teeth removed and correct his smile with orthodontic treatment.

Routine Intraoral periapical radiograph (IOPA) and Orthopantomogram (OPG) were taken.

The reason to opt for

orthodontic treatment was mainly to achieve good occlusion without intentionally damaging the adjacent natural central incisors. The replacement of two Mesiodens with one tooth in the central region would have resulted in an unaesthetic outcome.

Orthodontic treatment was done with American Orthodontics (AO) MBT 0.022" slot metal brackets. Total treatment time was 1 year 2 months. Fixed palatal retainer was given for retention.

Since Mesiodens is an extra tooth, it usually leads to crowding in the jaw due to lack of enough space.

Poor appearance

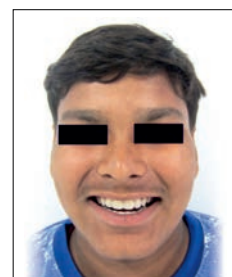
A Mesiodens can be unappealing and may lead to low self-esteem.

Affect occlusion

A Mesiodens that has erupted out of the arch may lead to a premature contact with the opposite jaw, resulting in altered occlusion. Additionally, a Mesiodens can cause a normal tooth to be pushed out of the arch resulting in similar problems.



Case - 1: Pre-treatment smile view



Case - 1: Post-treatment smile view



Case - 1: Pre-treatment front view



Case - 1: Post-treatment front view



Case - 1: Pre-treatment occlusal view



Case - 1: Post-treatment occlusal view

Case – 2

A 23 year old patient wanted correction of his smile for aesthetic reasons. Routine IOPA and OPG were taken.

Fixed Orthodontic treatment following the surgical removal of Mesiodens was done to achieve good alignment of irregular teeth along with good occlusion, with the help of AO metal brackets (MBT 0.022" slot). Total treatment time was 11 months. Fixed palatal retainer was given for retention.



Case - 2: Pre-treatment smile view



Case - 2: Post-treatment smile view



Case - 2: Pre-treatment front view



Case - 2: Post-treatment front view




Case - 2: Pre-treatment occlusal view



Case - 2: Post-treatment occlusal view

Conclusion

Delayed, ectopic or asymmetric eruption of the central incisors should alert the clinician for the possibility of Mesiodens. The clinician should obtain accurate radiographs including panoramic, periapical and occlusal views. Early diagnosis of a Mesiodens minimizes the treatment required and prevents development of associated problems.

Extraction of the Mesiodens in the early mixed dentition stage may facilitate spontaneous eruption and alignment of incisors, while minimizing intervention, space loss and midline shift. For further correction, surgical and orthodontic treatments are required. 

AN INDELIBLE IMPRESSION

Dr. Vibha Shetty

Professor, Department of Prosthodontics
Director, Training and Lifelong Learning
Ramaiah University of Applied Sciences
Bengaluru, Karnataka, India




DentCare Dental Lab is truly an example of what can be achieved when there is a dream and a complete commitment to make that dream a reality.

What is intriguing in its favor is the translation of that dream to various levels of the company in a manner that each individual lives that dream.

Discipline, commitment to quality, efficiency in product delivery – are a few things that caught my immediate attention on my memorable visit there.

The enthusiasm of individual section heads to speak of their work and the cutting edge technology that has been incorporated either in the CAD / CAM, DMLS or 3D printing was an exciting moment for me.

The focus on work of each and every staff member who were not distracted or the exact 15 minute break they took before returning to their seats was awe inspiring.

I wish DentCare Dental Lab the very best and thank them for an educating tour of their facilities. 





DEPRESSION

Depression is one of the most important mental health concerns affecting mankind currently. Depression does not mean occasional sadness which all of us experience as part of our day to day life, but indicates an unhappy mental state which persists for weeks or months.

Most of the studies done in various countries have shown a lifetime prevalence rate of about 20% to 25% for depression which reflects the magnitude of this problem. So in current times, depression is one of the major mental health issues which everyone should be aware of.



Dr. C. P. Somanath
Consultant Psychiatrist
Kochi, Kerala, India

What is Depression ?

Even though depression is such a common condition, the understanding about it among people still remains low. The International Classification of Diseases (ICD) has laid out clear cut guidelines to diagnose depression and has listed core symptoms which are indicative of a depressive illness.

Let us examine these symptoms

- ☐ Pervasive feeling of sadness or unhappy mental state lasting for weeks.
- ☐ Loss of interest in previously pleasurable activities and in extreme cases, loss of interest in life as such.
- ☐ Low energy levels, feeling of tiredness and dullness.
- ☐ Various disturbances of thinking are also noticed such as:

Feelings of helplessness, hopelessness, worthlessness, inferiority, guilt, death wishes and suicidal ideas can occur depending on the severity of depression.

Depression also leads to various other physical symptoms such as

- ☐ Sleep disturbance
- ☐ Decreased appetite
- ☐ Multiple body pains
- ☐ Various uncomfortable sensations
- ☐ Headache
- ☐ Gastrointestinal complaints
- ☐ Intolerance to loud noise

Other symptoms include

- ☐ Poor attention and concentration
- ☐ Poor memory
- ☐ Disinterest in studies and job
- ☐ Lack of initiative in starting any work
- ☐ Lack of will power and difficulties in facing day to day problems
- ☐ Irritability and anger control issues

Intensity of depression varies from person to person. People with mild depression may not have all these symptoms whereas severe depression is associated with most of these symptoms.



Depression and physical illness

Unexplained tiredness / unexplained physical symptoms with no positive findings in any investigation should raise the possibility of depression.

On the other side, serious physical diseases and depression can co-exist, for example, pancreatic malignancy, thyroid disorders, various endocrine disorders and cerebro-vascular disease.

Common misconceptions about Depression

1. **Myth:** One can willfully change his depressive state by simply trying hard.

Fact: Depression is a biological illness which involves neurochemical changes in the brain which one cannot always willfully change by himself / herself.

2. **Myth:** People who are highly educated or intellectuals do not develop depression.

Fact: Depression can occur to any individual.

3. **Myth:** Depression is not common in children.

Fact: Depression can occur in children and adolescents and should be addressed properly.

4. **Myth:** People who keep talking about suicide do so in order to get other people's attention.

Fact: Many people who keep talking about suicide may ultimately do so. Only certain people with personality disturbance keep threatening others with suicidal ideas. In the rest, suicidal ideas and suicidal intent should be taken very seriously.

5. **Myth:** There is no need to take medicine for depression and one can willfully control it.

Fact: Depression is a biological illness with neurochemical disturbance in the brain and should be corrected with appropriate medicine. Other non-pharmacological methods can be combined with this.

6. **Myth:** Medicines used for depression are addictive in nature.

Fact: Anti-depressant medicines taken under the supervision of the doctor are not addictive and can go a long way in relieving the depressive symptoms.

Causes of Depression

Multiple external and internal factors contribute to the development of depression.

External factors

Various negative life experiences which a person endures can raise the stress levels and lead to onset of depression. Such negative life experiences include:

- ☐ Loss of a loved one.
- ☐ Big financial issues.
- ☐ Adverse circumstances in job.
- ☐ Conflicts and strain in personal and marital life.
- ☐ Difficulties with academics and performance related issues.
- ☐ Multiple substance abuse like alcohol, ganja.
- ☐ Significant interpersonal conflicts.
- ☐ Chronic life events and longstanding adverse circumstances which cannot be changed easily.

Internal factors

Neurochemical disturbances in certain areas of the brain can result in depression. There are millions, even billions, of chemical reactions that make up the dynamic system that is responsible for the frame of mind.

The chemical instability as an outcome of certain weaknesses in the neuronal system results in depressive symptoms. Genetic factors also play an important role in shaping the basic emotional disposition of an individual.

Neurochemical disturbances in certain areas of the brain can result in depression.




How to treat Depression?

First step in the treatment is to establish the fact that patient is suffering from a depressive illness.

Based on the symptomatology, an expert doctor can diagnose depression after ruling out possibility of any physical illness. Wide array of anti-depressant medicines and other supportive medications are available for the treatment of depression currently.

There are many medicines which are very safe and relatively free of side effects. An expert doctor will be able to choose the right anti-depressant taking into account patient's symptoms, age and other co-existing medical conditions.

Along with medicine, family support, individual counseling and other treatment methods like cognitive behavioral therapy also help in alleviating the problem. Yoga, Pranayama and deep breathing exercises also help in overall improvement and recovery. 





Let's Talk Standardization



Dr. Seby Varghese
Private Dental Practitioner
Kochi, Kerala, India

Standardization in the Dental industry involves a diverse range of stakeholders: dental professionals, dental manufacturers, government agencies and the ultimate consumer – the patient.

The standard of care continually evolves with the advent of new materials, new procedures and new court rulings. Before applying the standard of care, dentists should consider new available treatments as well as current interpretation of the standard of care in their region / state / country.

Two events in the relatively recent past should be mentioned in the context of this article.

In the late 1980s, the California Dental Association (CDA) ran an advertising campaign with the slogan, “We’re the Dentists Who Set the Standards.” At that time there was a “busyness” problem among member dentists with the economy in a bad recession.

The CDA attempted to increase both patient awareness and the number of patient visits to member dentists by advertising the image of CDA member dentists as those who set the standard of dental practice. This campaign was cut very short when the Dental Board of California threatened a lawsuit based on claims of superiority.

It explains the need of an independent agency to develop, implement, monitor and continuously improve the quality control system in place.

Recently, Indian Dental

Association (IDA) local branches have come up with certain standardization protocols.

I raise the question about the authority of dentists to set our own standards of practice when our education and licensing is governed by Dental Council of India.

Department of Health must come up with the idea of standardization of facilities and treatment protocols in association with domain experts to protect the public in terms of malpractice. The legal system also demands standards and guidelines to be followed in patient care to avoid litigation.

Dental Professional Standards

The standard of care should be applicable to all dentists when patients claim alleged malpractice. It should be tempered by changes in the practice of dentistry, which dentists should be aware of.

Dental clinics should strive to maintain the highest quality of dental care possible by ensuring a high quality workforce through a careful recruitment and selection effort by the Human Resources Department and a stringent credentialing and privileging process by the Quality Improvement Professional Affairs Committee.

Quality clinical care will be assured through an active, carefully structured Peer Review Program. This program should ensure that the appropriateness, the comprehensiveness and the continuity of care is based on regularly scheduled chart audits.

Dentists within the organization must utilize the attached chart audit standards and audit documents to regularly evaluate the performance of their colleagues. The results of the audits provided to the dentist need to be evaluated as well as to the clinic administrator to formulate methods of improving upon any weaknesses in the care provided by the dental program which were identified by the chart audit.

Advantages of Accreditation

- ☐ Demonstrates a commitment to the highest level of patient safety and patient care.
- ☐ Eases access to managed care contracts and encourages patient referrals.
- ☐ Nationally acknowledged benchmark of quality.
- ☐ Increases competitive edge.
- ☐ Provides constructive educational opportunity.
- ☐ Offers valuable insights and compliance tips.
- ☐ Enhances ability to attract and recruit quality staff.

National Accreditation Board for Hospitals and Health Care Providers (NABH) – Quality Council of India

In India, the health care system currently operates within an environment of rapid social, economic and technical changes. Such changes raise the concern for the quality of health care.

Accreditation would be the single most important approach for improving the quality of a Dental Facility. It is an incentive to improve capacity of a National Dental Facility to provide quality of care. The Accreditation system ensures that the Dental Facility, whether public or private, national or expatriate, play their expected roles in the national health system.

Joint Commission International (JCI)

Joint Commission International identifies measures and shares best practices in quality and patient safety with the world.

International Society for Quality in Health Care Accreditation

This accreditation provides assurance that the standards, training and

processes used by JCI to survey the performance of health care organizations meet the highest international benchmarks for accreditation entities.

There are other accreditations available for dental practices in different countries.

Dental Holidays

Kerala is blessed with scenic beauty, better health index, expert professionals and auxiliaries. The missing link with the international community is the awareness of the high standards we follow in our practice.

We must have a quality system to promote ourselves internationally. The documented evidence will help us to propagate Kerala as a destination for dental holidays.

Dental Products and Standards

Few dentists realize how many international dental standards are involved in a

routine root canal procedure. The use of materials and equipment involved in this one procedure itself, involves multiple International Organization for Standardization (ISO) dental standards.

Leaning over the patient in the dental chair illuminated by a dental light which complies with the ISO standard and with the sound of the drill and the suction equipment – both pieces of equipment which may comply with the international standard, the dentist's thoughts are no doubt far away from the ISO standards for the equipment, devices and materials which ensure the quality and safety of the procedure.

What may be more surprising to many dentists is the fact that more than 20 ISO dental standards involving definitions, codes and designations, materials, devices and equipment, are

used for the production and placement of an anterior jacket crown.

An ISO designated system is used to record the location of each tooth in a patient's dental chart and shaping the preparation for the crown requires a variety of instruments conforming to ISO standards.

In future, there will be greater emphasis on the performance and quality of dental products based on consumer needs, testing methods, terminology and properties that ensure safety and reliability.

Several thousand dental products are manufactured and exported worldwide. ISO standards are a major factor in facilitating international trade in dental products.

Developed countries have a responsibility to play a role in the development of international standards in this vital area. Dental standards play a vital role in society by contributing to the quality and safety levels of products used in dental treatments.

It is indeed time for us to rise up and show the unbiased quality care we offer in our state. Should we not expect it from our service providers? ^{DC}



Q Who is the first man in world history to dive from mid-tropospheric altitude and land safely without a parachute, wing suit or anything else that might helped him stop or slow his descent?

A **Luke Aikins**, a skydiver with 18000 jumps, on 30th July 2016 jumped from 25000 feet (7620 meters) without a parachute or a wing suit.

Q Rickets which is one of the most frequent childhood diseases in developing countries is mainly due to?

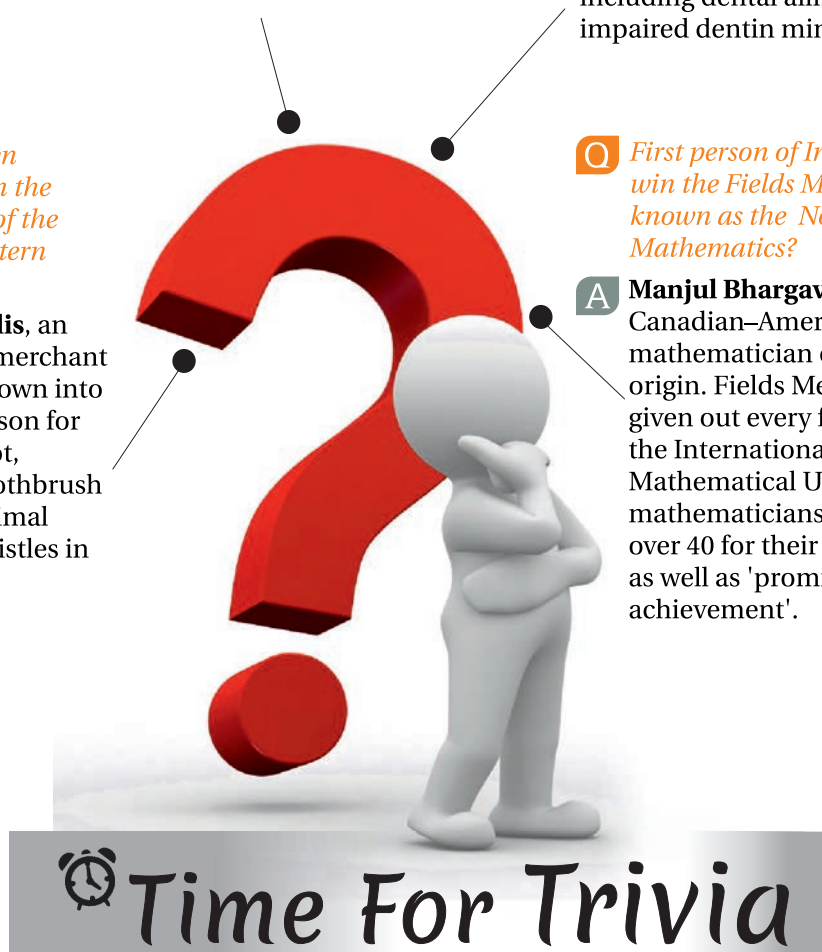
A **Vitamin D deficiency** (it is associated with severe bone deformities, including dental ailments due to impaired dentin mineralization).

Q Who has been credited with the "invention" of the modern Western toothbrush?

A **William Addis**, an English rag merchant who was thrown into Newgate prison for inciting a riot, created a toothbrush out of an animal bone and bristles in 1780.

Q First person of Indian origin to win the Fields Medal, popularly known as the Nobel Prize of Mathematics?

A **Manjul Bhargava** is a Canadian-American mathematician of Indian origin. Fields Medal award is given out every four years by the International Mathematical Union (IMU) to mathematicians who are not over 40 for their existing work as well as 'promise of future achievement'.



DentCare Connect

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Health Through yoga

Dr. Vikram Venkateswaran
Healthcare Author and Influencer
Bengaluru, Karnataka, India



Yoga was first introduced to the modern world after Swami Vivekananda travelled and spoke at the Parliament of World Religions which was held in Chicago in 1893.

Not only did it introduce Yoga to the West, it also led to reinvigoration of the practice of Yoga in India. Since then numerous Indian and Western health experts have come forward talking about the benefits of Yoga.

In 2014, the United Nations passed a resolution to celebrate June 21st as International Day for Yoga. Recently, the 'International Day of Yoga' was celebrated across the world with participants from very diverse countries like Tunisia, Venezuela and New Zealand.

Yoga predates the Vedic period and made its first appearance in the Rig Veda. Historically, the earliest records of Yoga were found in the 5th and 6th Century BC. Some records of Yoga were also found in the Katha Upanishad.

Greek historians who travelled with Alexander – the Great, have recorded

encounters with Yogins. Yoga has references in the Buddhist Pali Canons and the Bhagavad Gita.

The practice of Yoga developed across the ages, imparting physical, mental and spiritual health to its practitioners.

These are some key benefits that Yoga offers:

Circulatory system improvement

Yoga has been known to offer remarkable benefits to the musculoskeletal system in long term users. Practicing Yoga leads to increase in Gamma-Aminobutyric Acid (GABA) levels that helps control moods and reduces anxiety.

The breathing exercises as a part of Yoga leads to improved cardiac rehabilitation and quality of life in people with asthma and in some cases, is known to even lower the blood pressure.

When I was having certain breathing issues, mostly due to allergy, a 20 minute Yoga session went a long way in improving the circulation and breathing.

Lower back rehabilitation

Most of us with sedentary work lifestyles have suffered from back pain at some point of time in our lives. It is not uncommon to see a 20-year-old with back problems.

Yoga has an effect on the skeletal system and is known to relieve the stress in the lower back.

Research done by the Boston University School of Medicine shows that Yoga combined with rehabilitation for the lower back led to a reduction of pain for 1/3rd of the volunteer group, as opposed to only 5% of the control group that did not combine Yoga with their post-operative care.

I have used Yoga to reduce any stress on the back and to reduce back pain.

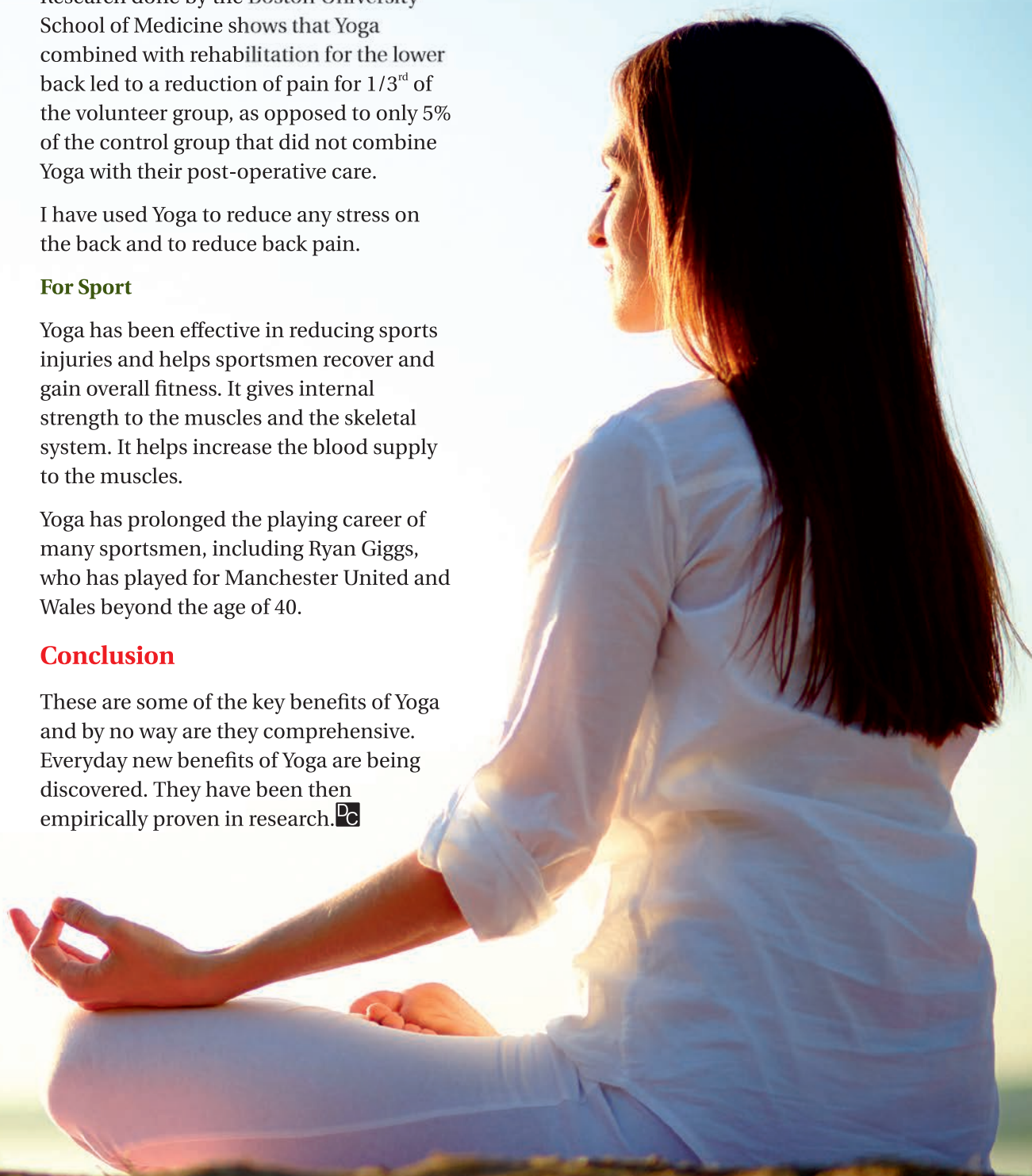
For Sport

Yoga has been effective in reducing sports injuries and helps sportsmen recover and gain overall fitness. It gives internal strength to the muscles and the skeletal system. It helps increase the blood supply to the muscles.

Yoga has prolonged the playing career of many sportsmen, including Ryan Giggs, who has played for Manchester United and Wales beyond the age of 40.

Conclusion

These are some of the key benefits of Yoga and by no way are they comprehensive. Everyday new benefits of Yoga are being discovered. They have been then empirically proven in research.^{DC}



Dental Calendar This October - November



06 - 08 October
London, United Kingdom
The British Dental Industry Association
Dental Showcase
Excel Exhibition Centre
☎ + 44 1494 417 219
☎ + 44 1494 781 188
□ www.dentalshowcase.com



07 - 09 October
Mumbai, India
World Dental Show
Bandra Kurla Complex
☎ + 91 22 4343 4545
☎ + 91 22 4343 4535
□ www.wds.org.in



DentCare Dental Lab exhibiting
@ Stall # B 29



13 - 16 October
Seattle, USA
80th Annual Session of
Pacific Coast Society of Orthodontists
Washington State Convention Centre
☎ + 1 415 441 2410
☎ + 1 415 441 5683
□ www.pcsortho.org



14 - 16 October
Penang, Malaysia
15th Penang Dental Congress
Bayview Beach Resort
☎ + 603 2095 1532
☎ + 603 2094 4670
□ www.mda.org.my



20 - 21 October
Houston, USA
International Conference on
Restorative Dentistry and Prosthodontics
Crowne Plaza
☎ + 1 650 268 9744
☎ + 1 650 618 1414
□ www.dentalmedicine.conferenceseries.com



26 - 29 October
Shanghai, China
The 20th China International Exhibition
and Symposium on Dental Equipment,
Technology and Products
Shanghai World Expo Exhibition and
Convention Centre
☎ + 8621 6157 3953
☎ + 8621 6157 7272
□ www.dentech.com.cn



26 - 29 October
New Orleans, USA
65th Annual Meeting of
American Academy of Implant Dentistry
Hyatt Regency
☎ + 1312 335 1550
☎ + 1312 335 9090
☐ www.aaid.com



03 - 05 November
Goa, India
51st Indian Orthodontic Conference and
8th World Implant Orthodontic Conference
Grand Hyatt
☎ + 77 679 20851
☐ www.51stioc8thwioc.com



04 - 05 November
Dubai, United Arab Emirates
8th Dental Facial Cosmetic International
Conference
Jumeirah Beach Hotel
☎ + 971 502 793711
☎ + 971 436 86883
☐ www.cappmea.com



14 - 16 November
Orlando, USA
17th World Congress on Oral Care and
Dental Hygiene
Double Tree by Hilton Hotel
☎ + 1 407 856 0100
☎ + 1 407 855 7991
☐ www.oralcare.conferenceseries.com



21 - 23 November
Melbourne, Australia
18th Asia-Pacific Dental and Oral Care
Congress
Best Western Premier Hotel 115 Kew
☎ + 1 888 843 8169
☎ + 1 650 618 1417
☐ www.dentalcare.conferenceseries.com



25 - 30 November
New York City, USA
92nd Greater New York Dental Meeting
Jacob K. Javits Convention Center
☎ +1 212 398 6922
☎ +1 212 398 6934
☐ www.gnydm.com



**DentCare Dental Lab exhibiting
@ Booth # 1529**



Climate Change, Food And Agriculture

The global message for World Food Day, October 16th 2016, by the Food and Agriculture Organization (FAO) of the United Nations is **“Climate is changing; Food and Agriculture must too.”**

FAO is calling on countries to address food and agriculture in their climate action plans and invest more in rural development. One of the biggest issues related to climate change is food security.

To meet the heavy demand of the steadily growing global population, agriculture and food systems will need to adapt to the adverse effects of climate change and become more resilient, productive and sustainable. This is the only way the well being of ecosystems and rural populations can be ensured.

Ms. Hannah Sheila Mathison
Nutritionist
Kochi, Kerala, India



Growing food in a sustainable way means adopting practices that produce more with less in the same areas of land and the use of natural resources wisely. It also means reducing food losses before

Making a difference

Everyone has a role to play in mitigating the effects of climate change. By being conscientious or ethical consumers and changing simple day-to-day

Natural resources

Land, water, animals and plants are earth's natural resources provided to help us live healthy. Make a serious effort to preserve our resources by adopting the following practices:

1. Do not waste water

- Take a shower rather than a bath. Bathtubs use gallons more water than a 5–10 minute shower.
- Turn off the water while brushing your teeth. Cleaning your teeth with the tap running uses 6 liters of water, while

The amount of food waste produced globally each year is more than enough to feed the nearly 1 billion hungry people in the world.

it reaches the final product or the retail stage.

This may be achieved through a number of initiatives including better harvesting, storage, packing, transport, infrastructure, market mechanisms as well as institutional and legal frameworks.

The amount of food waste produced globally each year is more than enough to feed the nearly 1 billion hungry people in the world.

decisions, we can make a difference.

As grateful and responsible occupants of this planet, we can make a huge difference by minimizing food waste, saving our forests, protecting the earth's natural resources like water and land, consuming less energy or utilizing energy sources that cause less pollution, among other things. One can tackle climate change by changing one's daily habits and making simple decisions.

cleaning them with the tap off uses less than 1 liter of water.

- Fix any leaks, if you notice them. A leaky tap can waste more than 11 thousand liters of water in a year, while a toilet leak can waste around 700 liters of water a day.
- If you use a dishwasher, stop rinsing your plate before you run the machine.
- Fill your washing machine with a full load

and hang clothes to dry on a clothes line rather than tumble-drying them. This will save water, electricity and washing powder.

- Water your garden using collected rainwater and 'grey water' (water used to wash hands and / or dirty dishes).

2. Diversify your diet

- Try to eat an all-veggie meal (including pulses, lentils, beans, peas etc.) instead of one meat meal, a week. More natural resources are used to provide meat than plants or pulses, especially water.
- Millions of acres of rainforest are slashed and burnt in order to turn the land into grass pastures for livestock.

3. Keep fish populations afloat

- Eat fish species that are more abundant (mackerel).
- Buy fish that has been caught or farmed sustainably, such as eco-labeled or certified fish.



4. Keep soil and water clean

- Pick up litter.
- Choose household cleaners, paint and other products that are free from bleach or other strong chemicals.

5. Buy organic

- Organic farming helps our soil to stay healthy and retain its ability to store carbon, which helps reduce climate change.

- Look out for organic and fair-trade products available in your local supermarkets or farmers' markets.

6. Energy efficient is best

- Buy energy efficient household appliances or fuel-efficient cars.
- Maintain your vehicles. A well maintained vehicle will emit fewer toxic fumes.
- Save energy by unplugging your TV,

stereo or computer rather than leaving them on standby.

- Use energy efficient light bulbs.
- Put on an extra sweater in winter and turn down your heating or shade the windows from the sun in summertime.

7. Use alternate sources of energy like solar / wind energy that are green

Waste Less

We produce a food print through the hidden emissions of the food we choose to eat. Unlike a car, you cannot see the release of greenhouse gases (like carbon dioxide) from your dinner, but the hidden trail of a meal's entire trip from the farm to your plate is filled with carbon-emitting processes. In addition to eating more vegetables and pulses or less meat, we can also reduce waste in the following ways.

1. Buy only what you need

- Plan your meals, make a shopping list and stick to it.
- Avoid impulse buys.

2. Do not let labels fool you

- There is a big difference between “best before” and “use by” dates. Sometimes food is still safe to eat after the “best before” date, whereas it is the “use by” date which tells you when it is no longer safe to eat. Check before you throw it out.

3. Limit your plastic

- Buy minimally packaged goods.
- Bring your own bag when you shop.
- Use refillable water bottles and coffee cups.

4. Recycle paper, plastic, glass and aluminium

5. Store food wisely

- When you stack up your cupboards or fridge,

move older products to the front and new ones to the back.

- Once open, use air tight containers to keep it fresh in the fridge.
- Close packets to prevent insects from spoiling them.

6. Avoid clutter in your fridge, pantry and freezer

- Out of sight is out of mind when it comes to storing food too. If we forget that something is there until it is no longer good to consume, it is a huge waste.

- Keep things neat and visible.

7. Love your leftovers

- If you have cooked too much, do not throw it away. Freeze a portion for another day or transform it into something else for the next day's meal.
- When at restaurants, ask for half a portion if you

Donate to food banks and farms.

think a full one might be too big and ask to take your leftovers home.

8. Donate to food banks and farms

- Before you throw away excess food, look into food banks and charities where you can bring items you know you are not going to consume before they go bad.
- You can also donate scraps and other types of food to farms and companies to feed livestock.
- Parties, weddings and other public gatherings mostly have large amounts of food being wasted. The party planners can find out orphanages, old age homes or other deserving institutions where the food which has not been served can be handed over and thus be put to good use.



9. Take stock

- Note upcoming expiration dates on foods you already have at home and plan meals around the products that are closest to their expiration.
- On a similar note, keep a list of what is in the freezer and when each item was frozen. Place this on the freezer door for easy reference and use items before they pass their time.

10. Use it all

- When cooking, use every piece of whatever food you are cooking with, whenever possible, for e.g. leave the skin on cucumbers and potatoes, sauté broccoli stems along with the florets and so on.
- Skins and stems often provide additional nutrients for our bodies.

11. Check the fridge

- Make sure it is functioning at maximum efficiency.
- Look for tight seals, proper temperature etc. This will ensure that the



food is fresh as long as possible.

12. Preserve produce

- Produce does not have to be tossed just because it is reaching the end of its peak. Soft fruit can be used in smoothies, wilting vegetables can be used in soups and both wilting fruits and vegetables can be turned into delicious, nutritious juice.

Being Climate Smart

Being climate smart is a constant series of choices, big and small.

1. Be rubbish-savvy

- In addition, to reducing, reusing and recycling, learn about how to dispose of household

items that should never be thrown in a regular rubbish bin (batteries, paints, mobile phones, medicine, chemicals, fertilizers, tires, ink cartridges etc.).

- Plastic that is irresponsibly discarded can severely damage marine habitats and kill large number of marine animals each year.

2. Make cities greener

- Add some green into the scene by creating and maintaining school gardens, community gardens on vacant lots or container gardens on rooftops and apartment balconies.
- Encourage your local authority to consider

When cooking,
use every piece of whatever food
you are cooking with, whenever possible.

sprouting roof gardens instead of heat – absorbing gravel and black tar.

3. Shop local

- By buying local produce, you can support neighborhood businesses and lower your food print, for e.g. by preventing trucks from driving long distances.

4. Protect forests and save paper

- Collect scrap paper and use it for drawing and notes.
- Buy and use recycled paper.
- Put up a “No Junk” sign on your letter box.
- Use as little paper as possible; photocopy and print on both sides. Better still, print only when you really need to.
- When you buy paper (printer paper, paper towels, toilet paper etc.),

make sure they are forest friendly.

- Try to buy furniture that is made from sustainably sourced timber or plywood.

5. Bike, walk or use public transport

- Reduce your carbon footprint by leaving your car at home or giving others a lift if you are going in the same direction.

6. Be a conscientious consumer

- Buy only from companies that you know have sustainable practices and do not harm the environment.

7. Be an advocate

- If you see an interesting social media post about



climate change, share it.

- Think of ways your local and national authorities could be engaged in initiatives that are aimed at helping the planet.

8. Pass it on

- See what clothes, toys or books you can pass on to friends, family and charity organizations.
- Buy second – hand books and other goods as much as possible to save energy and money.

Did You Know?

The Food and Agriculture Organization of the United Nations estimates that there are 805 million hungry people in the world.



- 60% of the hungry in the world are women.
- Almost 5 million children under the age of 5 die of malnutrition-related causes every year.
- 4 in 10 children in poor countries are malnourished, thus, damaging their bodies and minds.

daily bread

Though these simple solutions may seem too demanding on our time and energy, it is only a matter of getting used to these practices. After all it is for a better future for the whole world which includes us. So, let us start in small ways and make a worthwhile difference. **DC**

MY EXPERIENCE WITH DENTCARE




Dr. Vaidyanathan S. Mohan
Consultant Endodontist and Implantologist
Mumbai, Maharashtra, India

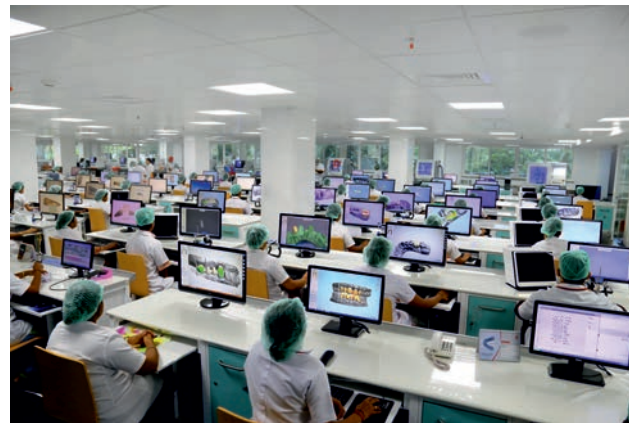
It is always said that two is company. This holds true in Dentistry too where if we need to achieve success, we need a good dental technician.

In fact, for a successful dental practice there needs to be proper understanding between the dental technician and the dental surgeon.

With DentCare, I have really found a good partner, which has enhanced my career, as my chair side time is considerably reduced and productivity has increased many folds.

I wish them the very best of luck and would urge my colleagues to partner with them and further their practice.

I am also delighted to note that DentCare has taken the noteworthy initiative in building the knowledge of the dental fraternity by circulating a magazine, 'THE DENTCARE' which carries articles of interest for the public and dental surgeons alike. Their well meaning intentions should be lauded and I wish to salute the Management on this endeavor. 



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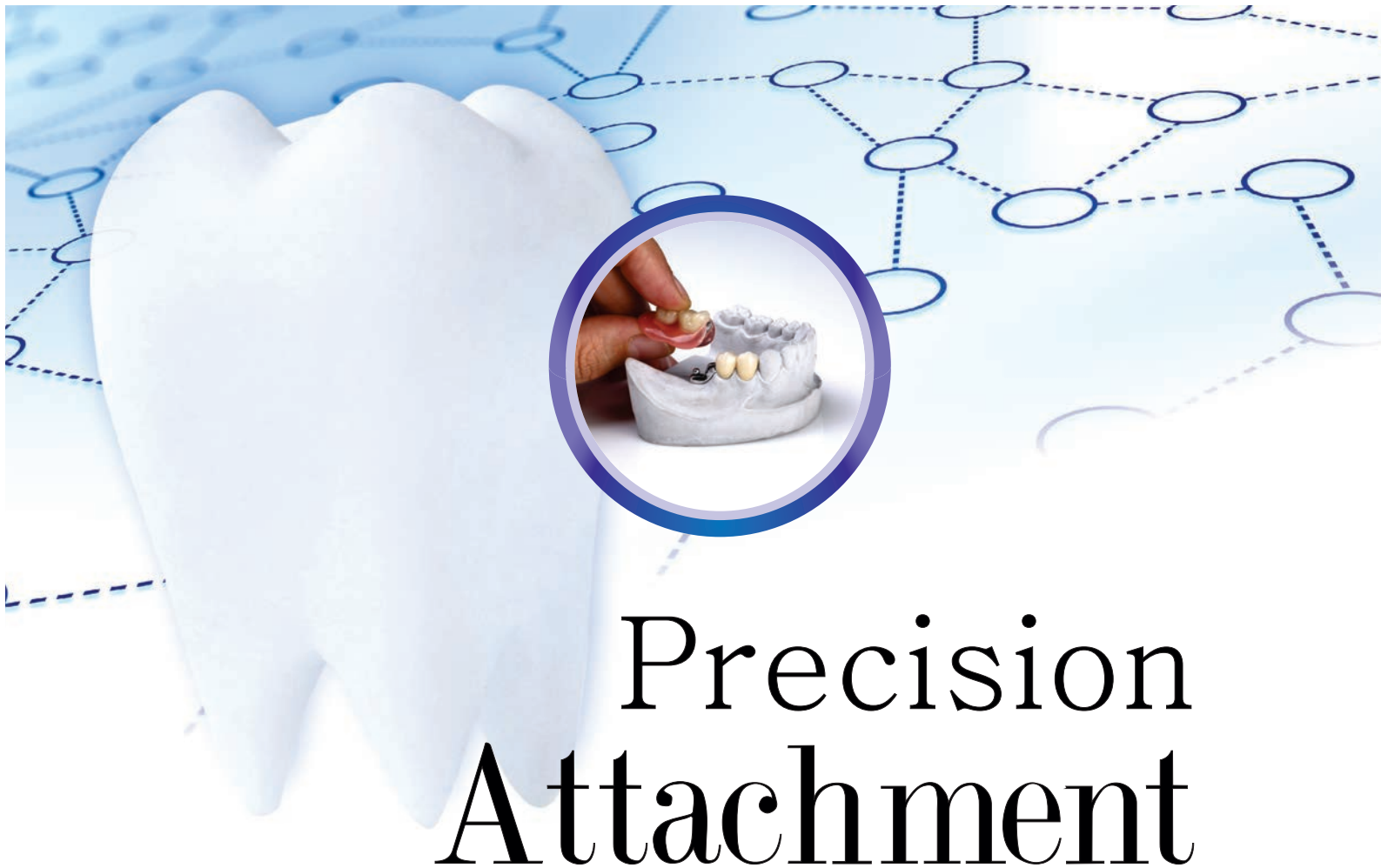


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Precision Attachment



Dr. Pallavi Taneja Mishra
Private Practitioner
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Introduction

Precision attachment is defined as 'a retainer consisting of a metal receptacle (matrix) and a closely fitting part (patix)'. The matrix is usually contained within the expanded contour of a crown on the abutment tooth and patix is attached to a pontic or the removable partial denture frame work.

Indications

1. When a movable joint in fixed removable bridge work is required
2. To retain hybrid dentures
3. In contingency planning for future extension or conversion of existing fixed appliances
4. Pier abutments
5. Tilted molars / Fixed Partial Denture (FPD) in severely malaligned abutments
6. In Overdentures
7. Fixed removable Implant restorations

Contraindications

1. Sick and senile patients
2. Periodontitis and gross periodontal diseases
3. High caries incidence
4. Inadequate space to employ them



Selection of an Attachment

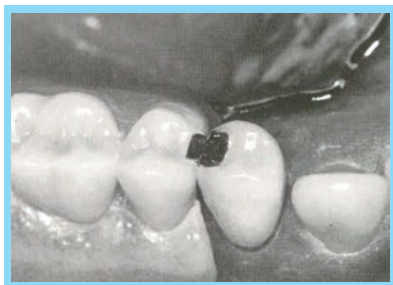
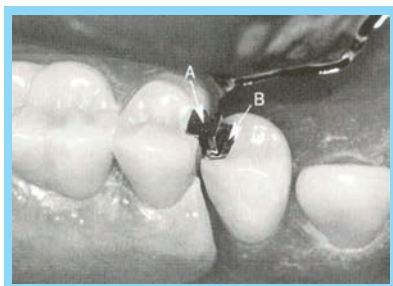
Selection of an attachment should be based on certain basic principles.

- a) Crown – root ratio
- b) Type of coping
- c) Vertical space available
- d) Number of supporting teeth
- e) Amount of bone support
- f) Location of abutments
- g) Location of strongest abutment
- h) Nature of opposing dentition
- i) Maintenance problems
- j) Cost

Classification

A. Based on its location on the tooth

1. Intracoronary

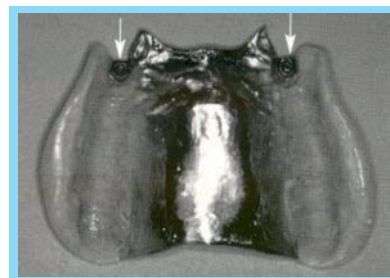
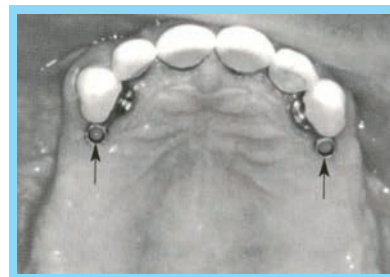


Intracoronary attachments comprise of a retainer component contained within the contour of the retaining tooth and is placed closer to the long axis and deeper into the tooth so as to direct the forces along the long axis of the tooth. It consists of two parts

a) Receptacle (female component)

b) An attachment / dowel (male component)

2. Extracoronary



Extracoronary attachments comprise of a retainer component which is outside the confines of the contours of the natural tooth.

B. Based on the fabrication technique

1. Precision (prefabricated)
2. Semi-precision (custom made)

Types

Bar Attachments

It consists of a metal bar that splints two or more abutments and involves a mechanism within the tissue area of the denture that permits the prosthesis to snap onto the bar for retention.

Advantages

- ☐ Provides rigid splinting of abutments
- ☐ Good retention, stability and support
- ☐ Can be used where adequate vertical, facial and lingual space is available

It is available in two sizes.

- ❑ Larger (vertical dimension = 4.5 mm)
- ❑ Smaller (vertical dimension = 3.5 mm)

Hader Bar

It consists of a plastic bar pattern with gingival extension and includes small clips which are processed on to the Overdenture.

Advantages

- ❑ The plastic bar pattern can be easily trimmed depending on the amount of space available.
- ❑ Precise fit
- ❑ No need for soldering
- ❑ Its rotational joint movement relieves stresses from abutment teeth

Stud Attachment

It consists of a male part which is attached to the tooth and engages the diaphragm of a female coping. These engage each other

when the Overdenture is inserted. Generally, retention is obtained by frictional fit or snap like action. It is available as resilient / non-resilient.

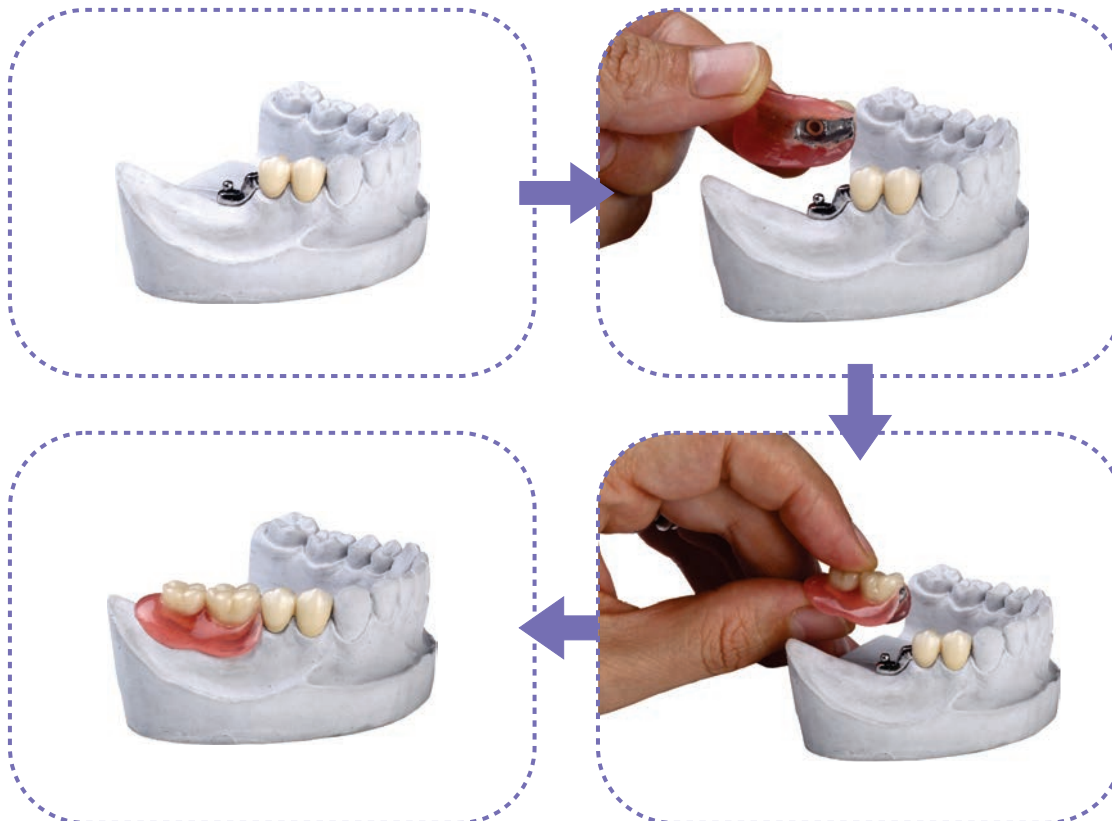
Materials used in Attachment Fabrication

- ⊙ Platinum, Iridoplatinum, Gold and Platinum, Gold and Palladium.
- ⊙ Type III and Type IV Gold.
- ⊙ Base metal alloys are also becoming popular as they are available at a lower cost.

Rest seat

Rest seat can be fabricated in two ways.

- i. Rest seat may be cast as part of a full coverage restoration.
- ii. Rest seat may be soldered in place.



Abutment Tooth Preparation

There are five main steps involved in preparation of abutment teeth to receive full coverage castings with precision attachment retained systems.

All these procedures are employed when any intracoronal retainer system is employed.

1

Surveying the diagnostic cast to ensure proper placement of required precision attachment for esthetics, periodontal health, restoration of biologic tooth contours and an optimal path of insertion of the removable partial denture.

2

Prepare guide planes to avoid an over contoured restoration on these surfaces with the subsequent restoration.

3

Prepare a deep recess to house the precision attachment rest seat so as to avoid an overcontoured casting.

4

Prepare the entire abutment tooth using a full shoulder with a bevel type of preparation. When preparing a tooth for any intracoronal attachment, the clinician must deepen the shoulder from the midpoint on the buccal surface to the midpoint on the lingual surface, on the near proximal zone (the area adjacent to edentulous area). The far proximal zone is the area away from the edentulous area.


This area is needed for the technician to manoeuvre the attachment on the surveyor for achieving proper parallelism and placement of the precision attachment and lingual sleeve without overcontouring the restoration in relation to the other precision attachments employed in that particular situation.

5

Add grooves / boxes to increase the resistance to dislodgement on short crowned abutment preparations ravaged by caries or large previous restorations.

Summary

Precision attachments offer considerable advantages in dentistry because of their flexibility; nevertheless they have in the past been largely ignored by most dental professionals mainly because of their cost and an inadequate grasp of their application.

However, with increasing awareness, together with technological improvement and good armamentarium, it has become important to combine what is actually feasible with what expectations the patient may have. 

Computer Assisted Total Knee Replacement

Middle-aged and older adults increasingly demand an active and healthy lifestyle. But dealing with the inevitable aches and pains of ageing can prove irritating, especially when they prevent you from pursuing the activities you would love to do.

Knee Wear and Tear (Osteoarthritis) is a prime culprit in this context.

Dr. Chandrashekar P.
Senior Consultant
Orthopedic Surgeon
Chief of Knee Services and Head
Department of Orthopedics
Sakra World Hospital
Bengaluru, Karnataka, India



When the articular cartilage of the knee becomes damaged or worn out, it becomes painful. The patient finds it extremely hard to move the knee. The bones, rather than sliding over each other with the minimum of friction, rub and crush together.

Replacement surgery in a damaged knee joint by placing an artificial prosthesis will remove all pain and help better movement of the knee. More than 95% to 98% of people who have total knee replacement surgery experience a dramatic decrease in knee pain.



and a significant improvement in their ability to perform common activities of daily living.

As a result of knee pain, a growing number of individuals are considering knee replacement surgery. The most common indication for a total knee replacement is osteoarthritis or wear and tear of the knee joint.

During total knee replacement, the surgeon removes damaged cartilage and bone from the surface of your knee joint and replaces them with metal and plastic.

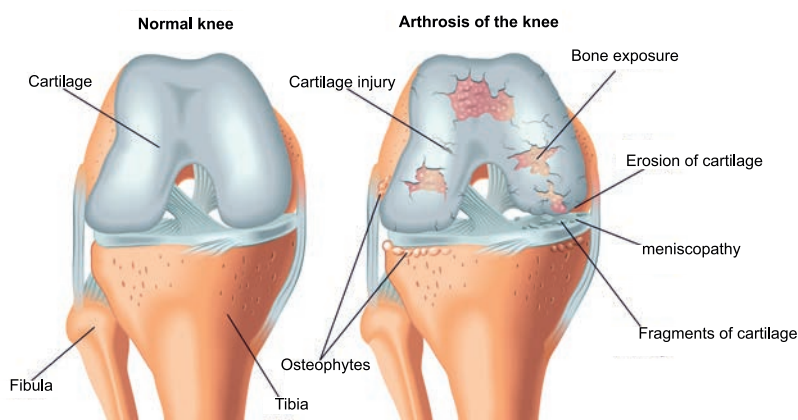
It is not uncommon for knee replacement patients to spend months or even years considering surgery. It is a serious decision and it is important to make the right choices. During this time, it is important to consider various issues and factors.

This guide provides you with the information you will need to engage in a serious and productive conversation with a surgeon and discuss your surgical options.

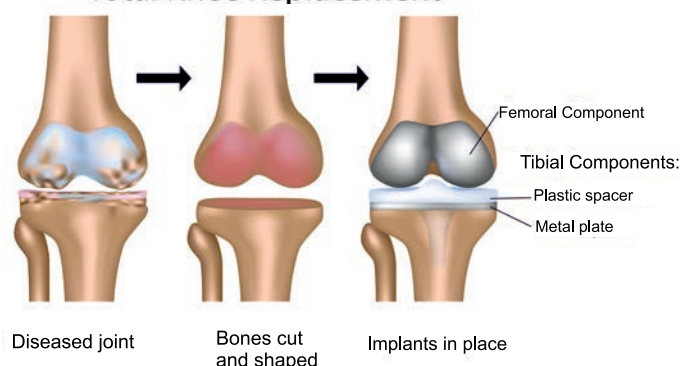
Here are some questions that you may want to consider:

- How do I choose my surgeon?
- How do I know he or she is the right one?
- What questions should I ask?
- What type of procedure and implant is best for me?
- Why is my surgeon recommending these options?
- How does the implant work?
- What are the risks and possible complications with surgery?
- What can I expect during my time at the hospital and after surgery?
- What are the costs?
- Am I prepared to cover these expenses?

Once you and your surgeon have agreed on a procedure, your timeline becomes more predictable.



Total Knee Replacement



Total Knee Replacement (TKR) surgery has become a commonly performed and highly successful surgical procedure. Recent innovations have improved both early and long term results.

New implant designs have provided for greater and more optimal range of motion. Better understanding of the role of the ligaments about the knee has resulted in improved joint stability.

The mini-incision computer assisted total knee replacement involves a smaller incision over the knee compared with the conventional total knee replacement which requires a longer incision. The same prosthesis is inserted using specially designed instruments.

Computer Assisted minimally invasive surgical techniques are evolving to speedup the rehabilitation process. These efforts have resulted in shorter hospital stays, lesser time on a walker and a quicker return to normal function.

Less postoperative pain and a shorter and smaller scar (improved cosmetics) are also by-products of minimally invasive surgery.

Currently, when a surgeon is placing an implant during a knee replacement surgery, he has to solely depend on his calculations and skills

to ensure the right fit.

Navigation systems containing camera, trackers, instruments and display screen allow real-time navigation, permitting the surgeon to plan the steps much ahead.

During the surgery, trackers attached to the patient send a signal. The camera catches this signal and the position is then identified on the patient specific anatomy map. The surgeon has a display screen which guides him in planning the surgical intervention and helps in performing the surgery with utmost precision.



Total knee replacement (TKR) surgery has become a commonly performed and highly successful surgical procedure.

Minimally invasive computer navigated knee replacement surgery allows the surgeon to make more accurate interventions and to place the artificial knee at critical angles by virtually eliminating alignment errors. There is no major blood loss and the scar is minimal when compared to

traditional knee replacement surgery.

Working like a common satellite navigation system in your car or a global positioning system (GPS), navigation brings in better alignment and positioning of the implant. Thereby, ensuring minimal

complications and reduced blood loss for patients.

This new technology coupled with expert surgical skills will be a boon for knee replacement patients who continue to suffer the pain and trauma for several years due to apprehension attached with the surgery. **PC**

Osteoporosis A Silent Disease

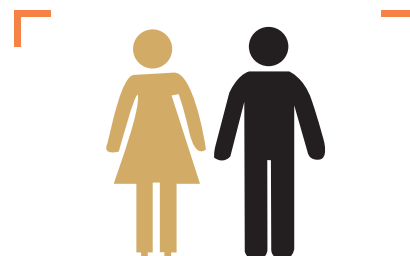
body **SPEAK**

Osteoporosis is a condition that weakens the bone which results in frequent fractures. It is often called a silent disease because bone loss occurs without showing any symptoms.

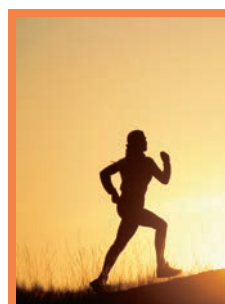
People may not know that they have osteoporosis until their bones become so weak that a sudden smash or fall causes a hip to fracture or a vertebra to collapse.

Key Risk Factors

Genetics, lack of exercise, lack of Calcium and Vitamin D, cigarette smoking, excessive alcohol consumption, history of rheumatoid arthritis, low body weight and family history of osteoporosis.



Around the world, at least one in three women and one in five men over the age of 50 will suffer a fracture caused by weak bones.



Essential Strategies to Reduce Risk of Osteoporosis and Fractures

- Exercise regularly
- Ensure a diet rich in bone-healthy nutrients
- Avoid negative lifestyle habits and maintain a healthy weight
- Get tested and get treated, if required

Love your bones

Consume Calcium-rich foods every day and ensure you are getting enough Vitamin D too. Milk, yoghurt and other dairy foods are an excellent source of calcium, phosphorus, protein and other nutrients that are important for bone health. Also limit the intake of salt and alcohol. Post-menopausal women at risk of osteoporosis should take 1,500 mg of Calcium daily.

Swacch Bharat Pakhwada

Dr. Eby Aluckal
Reader and Head of Department

Dr. Mathews Baby
Senior Lecturer

Department of Public Health Dentistry
Mar Baselios Dental College
Kothamangalam, Kerala, India

Prime Minister, Narendra Modi has exhorted the people of India to fulfil Mahatma Gandhi's vision of a clean India.

The 'Swacch Bharat Pakhwada' is a massive movement that seeks to create a cleaner India. Cleanliness was very close to Mahatma Gandhi's heart. A clean India is the best tribute we can pay to Bappu when we celebrate his 150th birth anniversary in 2019.

Mahatma Gandhi devoted his entire life so that India can attain Swarajya. Now the time has come to devote ourselves towards "Swachhatha" of our Motherland.

In accordance, The Ministry of Youth Affairs and Sports, Government of India has already initiated Swacch Bharat mission activities all over India through the NSS. It has been

decided by the Ministry that Swacch Bharat Pakhwada may be observed with meaningful programs.

This year Mar Baselios Dental College, Kothamangalam, Kerala, India too has joined hands with the Government of India to be a participant of the Swacch Bharat mission. The mission was taken up by the Department of Public Health Dentistry and began two days after Oral hygiene day on August 3rd.

Faculty members instructed the interns to inspect the college premises for a suitable site to carry out this initiative. August 11, 2016 was chosen as the day for observance of this mission where the Management represented by the Secretary – Shri. Salim Cherian, Faculty – Teaching and Non-teaching, Interns and Students participated in the program.

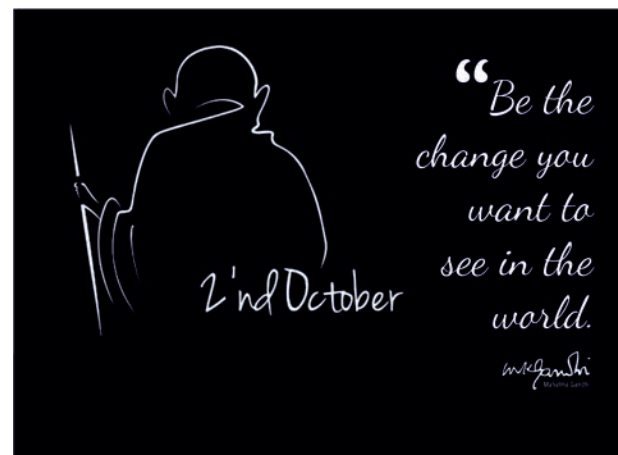


A small public function, organised by the Department of Public Health Dentistry was conducted at the entrance of the clinical block, which was kick started off with an introductory speech by Dr. Mathews Baby, followed by public

messages by the Principal, Prof. Dr. George P. John and the Secretary. A pledge to promise compliance was taken by all participants of the function which was read out by Dr. Eby Aluckal, Head of the Department, Department of Public Health Dentistry.

The best "clean" rooms, one each from the Ladies and Gents hostels was appreciated and gifts were awarded. The Secretary also promised that a NSS Unit will soon start functioning in the college campus.

The function ended with a cleaning programme of the selected site where all the members of college actively participated in the cleaning activity.



Thus, the Swacch Bharat event organised by the Department of Public Health Dentistry turned out to be a success and it added fuel to the fire of Gandhiji's vision. 

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