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THE DENTCARE

Your Monthly Health Care Magazine

Brightening smile the world over

Celebrating the Season!

Christmas Greetings & Good Wishes to you all

A Chat with Dr. V. P. Gangadharan

A Rendezvous with A Crusader of Cancer

Patient Expectation and its Essence

The 7 Habits to Healthy Life

The Future of Dentistry in India

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THE DENTCARE

Your Monthly Health Care Magazine

Brightening smile the world over

EDPRESS

Dear *DentCa*Reader,

Cometh December! It is time to remember a year that had so much to offer in life and provide us ample reason to celebrate.

For DentCare, it is the dawn of a new decade of hope and aspiration as we move into the elite "Thirty". We stand reassured that your lasting smiles will continue to brighten our lives.

2017 will soon become an archive of the most beautiful memories for all of us. Let us thank God for His immense benevolence as well His reassuring fortitude that molded us through some of the most trying occasions into more resolute beings.

Wisdom gained through the year will remain your reckoning of truth or an unrealized myth. It will certainly add its essence to forthcoming expectations and provide you with endearing experiences.

Certain, though, is the future. Amazing as it may seem, it is waiting to be unraveled in India!! And that could turn out to be the rendezvous of a lifetime.

The answer to our pursuit of excellence is Euphoria. Congratulation is truly reserved for the deserved – Exquisite moments indeed for us to cherish.

Even as the pages of your life turn into oblivion in the coming days of 2017, we believe you will unearth renewed vigor to script the best one in the year to come.

I choose to sum up by quoting the inspiring thoughts of our own source of admiration –
"Stay Positive and make your life Richer."

The DentCare family sends you warmest greetings of the Season. God bless you.

Yours truly,

Prof. (Dr.) George P. John

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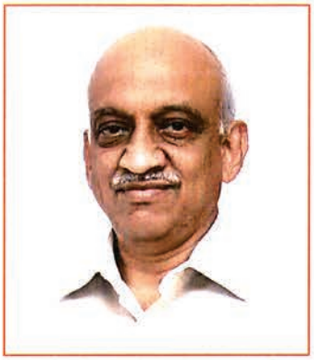

MESSAGE

Dental health issues remain to be an important public health problem for developing countries like India, especially among the rural population due to restricted access to better health-care systems. It is quite common for people to neglect dental problems since they don't seem to be life-threatening. Dental diseases can adversely affect one's quality of life. This ignorance towards dental care can be overcome by improving and increasing the public dental health care system which covers health education, counselling, health promotion, etc.

As I understand, DentCare Dental Lab Pvt. Ltd. – a leading manufacturer of dental prostheses - has been providing varied dental solutions to address the evolving needs of the dental care industry across the globe over the past 30 years.

It is heartening to learn that DentCare Dental Lab has been publishing a magazine titled `The DentCare' every month with an aim to bring out awareness about various issues related to dental health.

I wish all success to the initiatives of DentCare Dental Lab, particularly towards providing useful information on dental health issues and available solutions to the public through the magazine.

आ सी किरण कुमार
(आ. सी. किरणकुमार)
(A. S. Kiran Kumar)

Bangalore
November 10, 2017

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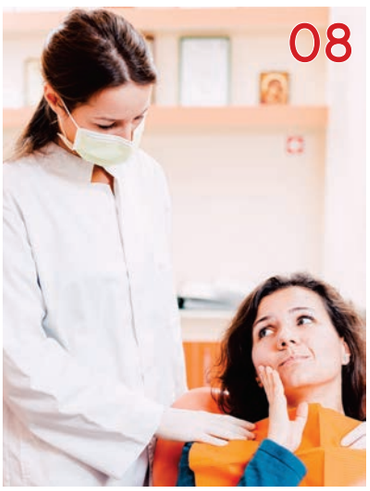


STAY POSITIVE AND MAKE YOUR LIFE RICHER

Mr. John Kuriakose
Managing Director, DentCare

God has created each one of us uniquely. He has endowed us with distinctive talents, in accordance with His will, for the goodness of all human beings.

Every life has a purpose. All that is bestowed upon us is for a reason; to make a difference, to leave a positive mark on the world and to influence those around us so that they too can flourish.

Talent needs to be developed from a small seed into a great tree, in order to bear many good fruits.

Use your talents and convert them into your strengths. Life is encompassed with varied feelings and emotions, such as Happiness / Sadness, Success / Failure, Appreciation / Criticism, Ups / Downs and so on.

A life without an aim is absolutely meaningless; as the saying goes 'An idle mind is the devil's workshop'.

To succeed in life, one should aim for higher perspectives and develop a positive attitude towards life. Positive thinking brings success, better health, happiness, satisfaction, inner peace and so forth. It enables day-to-day affairs of your life to be smooth with less friction and makes life look bright and promising.

Failures are the stepping stones to success. In fact, majority of successful and famous people in the world have endured the most failures in life. They might have failed repeatedly. But they chose to get up. They learnt from failures and kept going. And that is just what it takes to succeed.

Thomas Alva Edison could succeed in his inventions because of his unquenchable passion and determination to succeed. “I have not failed. I have just found 10,000 ways that won't work.” These are the words of the most prolific inventor who is credited with having invented the Electric bulb.

Edison's words greatly influenced people around the world and he has to his credit more than 1093 inventions. His life is an inspiring example for all of us.

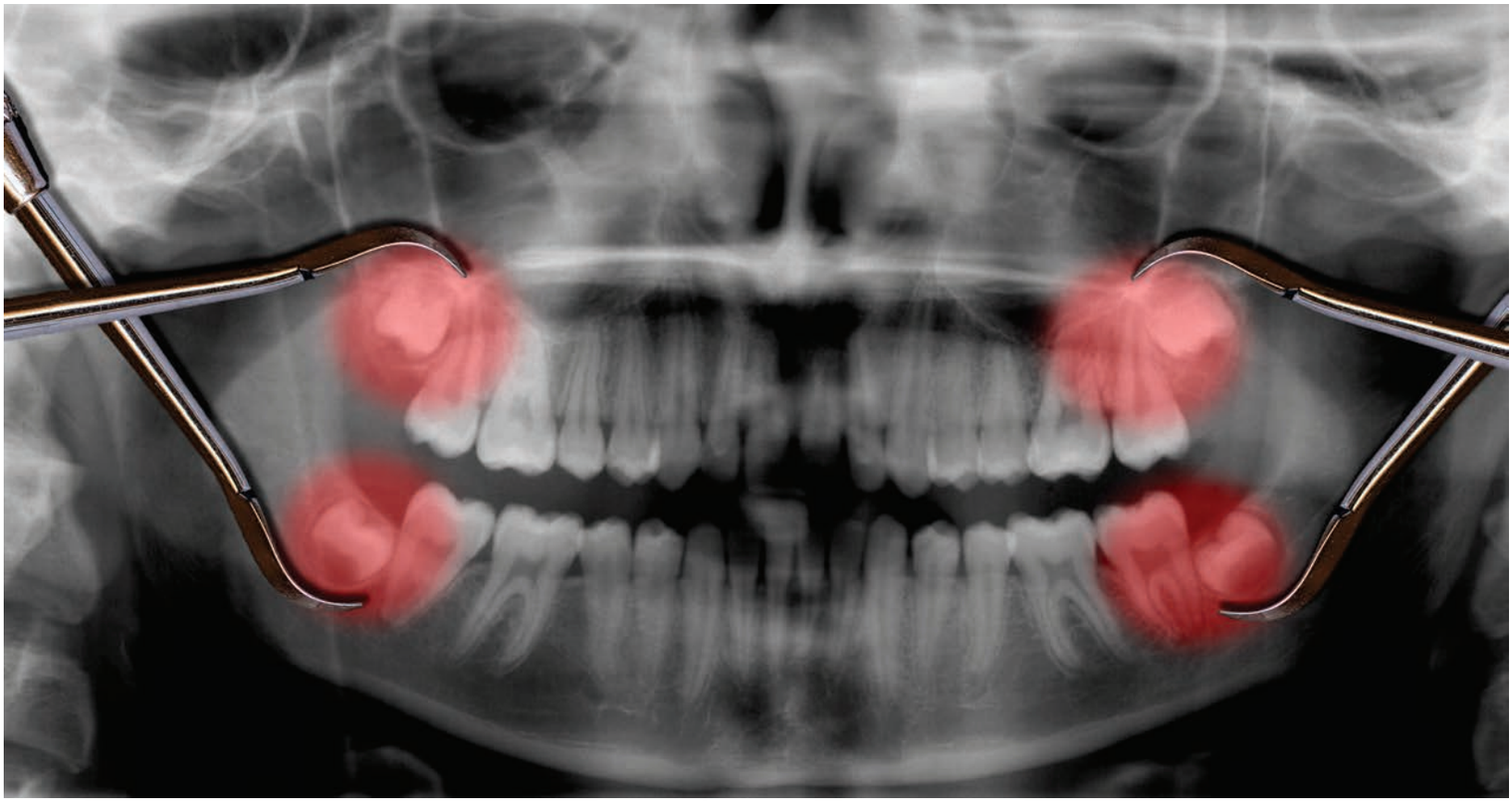
Optimism, good thoughts, determination and urge to do something good, perseverance, benevolence, strong belief in God etc. will undoubtedly bring success into your life.

Life is too short; even if a person lives for 100 years, he gets only 36525 days of life. So, let us forgo our intrusive thoughts and breeze positive vibes to the people around us.

Always be optimistic and anticipate for promising outcomes and circumstances. Put your heart, mind, intellect and soul in everything you do and always say “I can, which indeed will make a big difference in your life”.

Let us hope for the best... **Give it a try, certainly your Life will reflect the power of positivity.**

Wish the readers a merry Christmas and a prosperous New Year.



WISDOM TOOTH
THE MYTH AND TRUTH

From childhood, I have been interested in knowing about the Wisdom Tooth (Third Molar), surprised by the vast difference of opinion each Science Teacher had about it, wondering at what it really was for. Some said it was useless and needed to be removed while others stood for the positive side of it, spotting that it helped in chewing and was needed for a complete mouth.

But once I started my professional studies in Dentistry, I used every facility to rule out the false thoughts I had about each Tooth, especially about this Third Molar Tooth.

The need for extraction of Wisdom Tooth is one of the most controversial topics discussed internationally. There are a few special aspects common to all Third Molars, which make them unique from the rest of the Teeth.

It is a Tooth with the most diverse shape; there is little chance of seeing two identical Wisdom Teeth in two individuals. The possibility of seeing a Wisdom Tooth in a 30 year old person, according to statistics, is 75 %.

Sometimes partly erupted Wisdom Tooth and on other occasions fully impacted Wisdom Tooth are reported. Cases of impacted Wisdom Tooth have tremendously increased in the past few decades which are believed to be due to the changing dietary habits.

When there is a Wisdom Tooth in the Mouth

The help a Wisdom Tooth offers is by aiding in grinding food, but the other Tooth functions like phonation, facial symmetry maintenance etc. are not much influenced by it, as they are too late to erupt (18 to 26 years).

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Final Year B.D.S Student

Guided by
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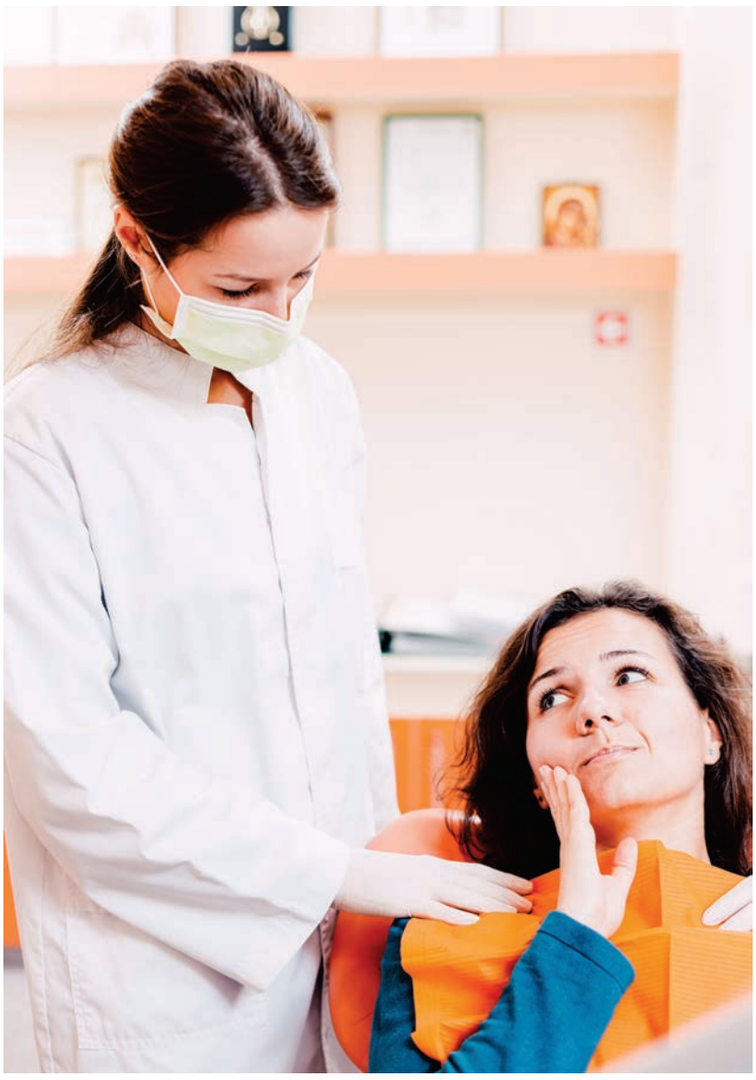
The disturbances it can offer are ample, unlike the help. Since the area is beyond the reach of a Toothbrush, it is difficult to clean, so the risk of cavities increases.

When the eruption stops at half way through, the chance of food lodgement and thereby Bacterial growth can lead to swelling on the surrounding Gum Tissue (Pericoronitis). Furthermore, the advent of this late guest, demanding more space, worsens an orthodontically corrected case.

When the Wisdom Tooth Remains Impacted

"There is no need to fear an enemy who can never appear in front of you". This was an earlier concept about an impacted tooth. It is true in 20% Cases. But the complications offered by the other 80 % are much more than if it were fully erupted.



At the site of impaction, there occurs unexplained pain, as it exerts pressure on the nearby nerve. Cysts or Tumours may form around Impacted Wisdom teeth and these potentially destructive pathologic lesions can cause damage to the adjacent teeth, bone and other anatomic structures.

Studies show that a Third Molar left in situ may cause resorption of the distal root of the adjacent Second Molar. Few other conditions which can be associated with an Impacted Third Molar include functional disorders, such as Occlusal Interference, Cheek Biting, Mastication Disorders, Trismus and Temporomandibular Joint Disorders.

When do we not opt for a Surgery?

Some Cases are contraindicated for surgical removal:

1. People in old age whose healing ability is little.

2. Medically compromised individuals whose immune status is low. (eg. uncontrolled Diabetes).

3. Very closely associated vital structures, teeth that could be affected.

According to P. Mercier a strong indication for removal of Third Molar is complimented by a strong contraindication for its retention. Post surgically, the patient can probably suffer from Infection, Nerve Disturbances, Burns (due to friction of instruments) etc.

It is always a combined and discussed choice of the Doctor and the patient to go for surgical removal or to retain it, after considering all the above factors.

Although there are a few disadvantages and complications, once a proper protocol is followed, surgical removal is a proven success against the problems raised by a Wisdom Tooth. DC

Adenoids in Children

The adenoids are a mass of soft tissue situated at the back of the nasal passage.

Like tonsils, adenoids help keep your body healthy by trapping harmful bacteria and viruses that you breathe in or swallow. Although the tonsils can be seen at the back of the throat, adenoids are not directly visible.

The adenoids produce antibodies that help fight infections in babies and young children. But they become less important once a child gets older and his body develops other ways to fight infections.

In children, adenoids usually begin to shrink after about 5 years of age and often practically disappear during teenage.

The adenoids trap the germs that enter the body and as a result, adenoid tissue may temporarily get swollen (become enlarged), as they try to fight off an infection. The swelling may subside after a period of time, but at times, adenoids may get infected.

If the adenoids get infected a great deal, the doctor may recommend their removal. Often, tonsils and adenoids are surgically removed at the same time.

Symptoms of Enlarged Adenoids

The symptoms associated with enlarged adenoids are:

- Difficulty in breathing through the nose.
- Breathing through the mouth.
- Talking as if the nostrils are pinched.
- Noisy breathing.
- Snoring.
- Stopped breathing for a few seconds during sleep (obstructive sleep apnea).
- Frequent sinus infection.
- Persistent middle ear infection or middle ear fluid in children.
- One of the most common side effects of mouth breathing is an excessively dry mouth. Under normal conditions,

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saliva continuously washes the bacteria from the mouth. However, if your mouth is dry, bacteria may often take control, leading to complications like cavities.

- ⇨ In children, mouth breathing may also lead to permanent skeletal deformities, especially the growth of the upper jaw more than that of the lower jaw. And this results in a large overbite and a gummy smile.

If enlarged adenoids are suspected, the doctor may ask about and then check your child's ears, nose as well as throat and feel the neck along the jaw. Besides, to taking a really close look, the doctor may order for X-rays or look into the nasal passage with a nasal endoscope.

If an infection is suspected, the doctor may prescribe different medications, including antibiotics. Nasal steroids (spray) may also be prescribed to help reduce swelling of the adenoids.

When is Surgery necessary?

If enlarged or infected adenoids keep bothering your child and medications cannot keep the disease under control, the doctor may recommend **adenoidectomy** or surgical removal of the adenoids.

In children**,** adenoidectomy may be recommended in the following cases:

- ⇨ Difficulty in breathing.
- ⇨ Obstructive sleep apnea.
- ⇨ Frequent sinus infections.
- ⇨ Ear infection, middle ear fluid and hearing loss.

Adenoidectomy may become necessary, if there is infection of the adenoids that result in sinus and ear infections.

Badly swollen adenoids can interfere with the ability of the middle ear space to stay ventilated. This can sometimes lead to infections or middle ear fluid causing a temporary hearing loss.

So children with infected adenoids having frequent earaches and fluid build-up may also need an adenoidectomy along with ear tube surgery.

Although adenoids can be removed without the tonsils, if your child suffers from tonsillitis, the doctor may recommend tonsillectomy along with adenoidectomy.

A tonsillectomy with an adenoidectomy is a common pediatric operation. In less than a week or two after the surgery, everything will become normal and the problems caused by the adenoids will go away. There are no stitches to worry about and the adenoid area will heal naturally.

Medical Management

For long, adenoidectomy has been the only definitive treatment for upper airway obstruction and the diseases complicated by or attributable to adenoidal hypertrophy.

Medical alternatives to adenoidectomy are usually directed towards providing transient symptomatic relief or treating concurrent infections. Topical use of corticosteroids for a few weeks may also be helpful.

The size of the adenoids may get reduced due to the following:

(1)A direct lympholytic action of topical steroids on adenoid tissue.

(2)The anti-inflammatory action of corticosteroids in the respiratory tissues.

However, it is not yet proven, whether the effect of topical steroids can be sustained for long, after the therapeutic procedures. If the obstruction persists after a reasonable duration of medical therapy, the doctor would recommend for surgery. DC

PATIENT EXPECTATION AND ITS ESSENCE

Dentistry is a very dynamic field where we interact with patients time and again. Over fifty percent of our time with patients is spent on verbal interaction.

After verbal interaction, we – dentists and patients – would reach a point of understanding and move forward along a path of mutual agreement and consent built on expectations.

Understanding patient expectations is a crucial part of our profession for delivering the expected treatment. Expert advice would mean nothing if it cannot be comprehended by the patient, even if it were the best treatment approach. Patient expectations may be categorized into:

1. The expectations before treatment.

2. The expectations of the outcomes; fantasy versus feasibility.

Patient Expectations before Treatment

Patients tend to have very diverse and varied expectations with regard to dental treatment. This can be discussed under the following criteria:

The Dental office

Everything about the dental office - the name of the dental office, the ambience, the cleanliness, even the lighting - can speak volumes about what the patient can anticipate. Even the way the dental office smells can matter.

Based on these, a patient

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might have foreseen a scenario of things to come. A seating area spaciously furnished with comfortable seating and lighting, including the amenities like drinking water, cups and tissues can portray the quality of treatment a dental office provides or one that a patient can expect.

A restroom or a children's play area can be an added bonus. Most often than not, patients have to wait for a considerable amount of time during which reading materials will come in very handy.

Reading materials used for basic dental conditions, management protocols and leaflets can help the patient familiarize with certain treatment approaches and ideologies.

In this regard, many dental offices have information charts, boards and handouts. Even television sets and music can be incorporated into the environment.

The Personnel

At the dental office, patients would interact with:

The guard at the door / parking area, the receptionist who greets and checks them in, the doctors who treat them and the assisting personnel who escort the patients to the respective treatment rooms and seat as well as drape them.

The way the personnel present themselves, their attitude and the way they speak can change the attitude of the patient. Usually a brief training by Human Resource (HR) personnel helps set certain protocols towards patient management. This goes a long way in creating a positive attitude in the patient.

We should bear in mind that patients may not be able to conceptualize certain aspects, though medical professionals may be able to. So patience in listening to and educating the patient is very crucial. And this is equal to exchanging respect mutually.

The treatment plan and its clarity

The patient may present himself with a virtually grey area of questions which may require clarification and reassurance. The biggest factor that can raise red flags in the patient's mind is when the treatment plan is not sequentially and schematically provided.

In such a situation, we should break down the entire discussion with the patient into the following points:

- Exchanging personal introductions.
- Asking the patients why they seek me or my expertise.
- Telling the patient about the observed problems based on clinical and radiological findings.
- Categorizing the issues into those that need immediate attention and those that can be addressed subsequently.
- Sequential treatment approach based on points.
- Alternate treatment options (if available).
- Long-term and immediate consequences and prognosis of not addressing the issues.
- Prognosis after treatment (success / failure rate).
- Addressing questions and queries.
- Reassurance and motivation.

By the end of the discussion, which may sometimes even last for about 45 minutes to an hour, we will be able to

The biggest factor that can raise red flags in the patient's mind is when the treatment plan is not sequentially and schematically provided

inculcate the patient with:

- Clarity of the treatment approach,
- Confidence in the doctor and his treatment plan,
- Synchronized mindset between the patient and the doctor and
- Clarity of anticipated outcomes.

Patient Expectations of the Outcomes; Fantasy versus Feasibility

It is important to limit and keep the patient expectations within practical range, such as:

- Never give false hope,
- Never oversell,
- Never understate poor prognosis,
- Always assess and explain the risks and risk factors,
- Always obtain signed consent,
- Ensure that the patient is an active participant in the treatment planning and execution,
- Always emphasize on the importance of maintenance and heeding to precautions / instructions,
- Always recommend follow-ups,
- Always be truthful about longevity of the treatment,
- Always be transparent about policies, warranty and guarantee of the materials and treatment,
- Always discuss the finances during treatment planning and
- Always be able to assess if patient expectations lie outside practical limits: (with a few examples)
  - "Dentures may break if they fall down. Give me something unbreakable".
  - "My removable dentures come off when I eat sticky food. I want it to stay fit".
  - "I want a fixed option for my missing teeth" (when there is no option for augmenting deficit bone for implants / poor quality bone is present in an edentulous patient).
  - "I want to save my tooth" (when it is a grossly decayed root stump or a grade III mobile tooth with hopeless prognosis).

To sum up:

Various studies have concluded that those patients, who are well-informed and motivated, come out with excellent and lasting treatment outcomes, as they assiduously follow the doctor's instructions, maintenance protocols and timely follow-ups.

Good compliance comes with a clearer perspective of the treatment plan and its prognosis. Therefore, the patient should be motivated to comply with the treatment plan and follow timely follow-ups for delivering the expected treatment outcomes and optimum patient satisfaction. DC

DentCare in my Experience

Dr. Abdul Habeeb Bin Mohsin
Assistant Professor
Department of Prosthodontics
and Implantology
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My experience with DentCare was absolutely awesome. Their customer service is amazing. They get to know their customers intimately and they treat you warm-heartedly. I know that they are a big lab but they have a big heart too. That is something they will never outgrow.

Due to their dedication to excellence and vast knowledge of the materials, all the cases are done with ease. With the most advanced technologies and the existing products being frequently re-engineered, they successfully adapt to meeting our needs.

DentCare offers an extensive range of high-quality dental prostheses, including high-end CAD / CAM technology. Collaborative teamwork and effective communication between the lab and the dentist is the key to achieving the best outcomes.

DentCare is the best laboratory that I have ever interacted with. Starting from the first case, all personnel were professional and prompt in their delivery schedule. All the model works were precise and accurate; the prostheses are being delivered in a protected case.

DentCare has become the largest and best dental lab in the country, as they listen closely and pay keen attention to the customers' needs and respond to with proven effective solutions. If there are any concerns from their end, they will promptly call you back.

Thanks to the whole DentCare team for maintaining good customer relationships, technological modernization and re-equipping themselves to international standards.

My best wishes to Mr. John Kuriakose who is truly a visionary and entrepreneur as well as a humanitarian.

I give big thumbs up to DentCare!

THE FUTURE OF DENTISTRY in India

Before contemplating the future of dentistry in India, it is vital to reminisce the past and introspect the present.

Dentistry has made much advancement very recently in India than in Europe and America. The first college of Dentistry in India was set up only in the 1940s. Till then, dental patients had to rely on roadside quacks, barbers or family members for tooth extraction.

Root canal treatment was unheard of in those days. Fillings used to be known as "masala". The Worm Theory was still the known aetiology of toothache. Dentures used to be the last resort of the edentulous, made from questionable materials.

Fast-forward to 2017. Can we agree that things have improved in totality?

In my six years of hospital and private practice, many a time I have encountered patients who have been victims of quackery, "home medicine" hacks or pure self-harm, when they tried to extract teeth on their own, using unsterilized instruments.

I still get rural patients who prefer going to the local "bez" because he can show them worms crawling out of the extracted teeth. For these poor people, root canals are more expensive than self-neglect and dentures are cheaper than qualified dentists' fees.

There are a few questions that we need to ask ourselves:

- Why are we left with no choice but to lament over this limbo in our profession? Is it not because of our own doing?
- Have we kept our standards and protocols high, be it in dental education, continuing dental education, dental jobs and dental practice?
- More importantly, have we made our services accessible to the rural poor?
- Do we willingly work in rural areas?
- Do we spend enough time and resources on educating the masses?

Dr. Chinmoy Hazarika
Dental Practitioner
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- How many awareness campaigns have we been part of?
- Does government think of us as indispensable healthcare professionals?

The Problems

- For those of us who work or practise in semi-urban and urban localities (80%), there are innumerable issues that plague us. Unprofessionalism in dentistry must be done away with. Unprofessionalism is not something that we consciously subject ourselves to. It just comes to us on its own. A little compromise here, a little discount there, a little badmouthing about your competitors etcetera contribute little by little to the cumulative mess, we individually find ourselves in today. Now, compound all this to the total number of dentists in a locality and we will find our answer to the decadence, we have descended into.
- Price war among dentists, especially the new graduates, is a major hurdle in the march of Indian dentistry towards progress. It is a downward spiral from which there is no economic recovery. It is logical; cheaper price will mean cheaper materials and instruments, which in turn results in inferior quality treatment, in most cases. Our reputation as skilled clinicians takes a beating. We must keep our costs reasonably high (not unethically unreasonable) in order to keep our treatments at the optimum level and all of us must have a consensus for the same.
- Badmouthing our competitors is very prevalent in Indian dentistry. We should welcome creative criticism, but it should be done within our own community and NEVER in front of our patients. If a patient badmouths another dentist in front of me, I pretend not hearing those allegations at all, even if I know the fault of the other. If we indulge in such unprofessional behaviour, we send out signals to our patients that our field is morally corrupt with jealousy and unhealthy competition.
- Patients' experiences play a humongous role in deciding what kind of dentists we make out ourselves to be. The experiences can range from pain and horror to disliking the ambience of the operatory. Accordingly, we must invest in our practices, keeping in mind how we would like to be treated, in case we unfortunately find ourselves at the other side of the chair.
- Those of us who are already in jobs, whether in government or corporate sector, are lucky to be so, since the newer graduates in the present-day are finding it difficult to find any. With the rising number of dental graduates, year after year, the establishment finds itself one step behind in terms of job creation and manpower absorption. Most hospitals find themselves in doldrums before investing for a dental set-up because of the lack of awareness regarding what treatment procedures a dentist is proficient in. Hence, it is not just the general public that needs to be targeted during awareness campaigns; the policymakers need to know our indispensability and treat us at par with other healthcare professionals. We are doctors first and foremost, irrespective of who says or thinks otherwise.
- Then, there is the problem of unevenness in the distribution of dentists. Almost everyone wants to work and practise in cities, which

We must keep our costs reasonably high (not unethically unreasonable) in order to keep our treatments at the optimum level and all of us must have a consensus for the same

explains why city dentists clamour for space and patients, while rural dentists make do with cheaper provisions because supplies are hard to come by. This also roughly explains in a way, why treatment charges have no uniformity between urban and rural areas.

- There is also the problem of dentists not conforming to ethics and strict protocols, regarding sterilization and other clinical practices. Some of us resort to quackery to earn a quick buck; some of us even go to the extent of conniving with quacks to establish thriving practices. If this is how we plan on managing our chosen profession, then I very sadly and regretfully have to state that state-of-the-art advances in Modern Dentistry like lasers, Digital Smile Design, Guided Implantology, Full-mouth Rehabilitation, CAD / CAM, Digital Practice Management and other advanced modalities will but remain a pipe dream for us to perform and for our patients to benefit from.

The Future of Dentistry in India must aim to resolve the aforementioned glitches in our ecosystem.

However, all is not lost to us, dentists. There seems to be a silver lining to every dark cloud and I am of the opinion that Indian Dentistry is no exception. This is where The Utopia of Indian Dentistry becomes every dentist's dream ecosystem.

There have been dentists who strive to make this dream a reality with varied degrees of success. If we all strive together to this end, I see no reason why we must be stuck in limbo; rapid strides towards progress can only be made with joint efforts.

The Probable Solutions

How do we fight for the Future of Dentistry in India?

- **Awareness campaigns:**

  Mass campaigns must be conducted to educate not just the general public, but also other healthcare professionals regarding oral and dental diseases and deformities.

- **Impeccable clinical and ethical skills:**

  We must have mentorship programs made mandatory for new graduates before opening their clinical setups. There is so much more to dentistry than what is taught in colleges. Continuing Dental Education programs are doing their bit and we must take part in most of them to keep our skills honed.

  We must denounce quackery vocally, publicly and unanimously. There are laws against quackery, which we must take refuge of.

- **Dental Insurance:**

  A great segment of Indian Population never visits a dentist simply because they cannot afford it. Insurance can take care of this. The patient pays a yearly premium which can cover all basic procedures and afterwards the dentist can claim his expenses from the insurance company. It is a win-win situation for all the parties involved. In fact, all developed countries offer dental insurance to their citizens, in some form.

- **Price War:**

  This is done by those dentists who have minimum liabilities in their practices and are of firm believe that keeping the treatment charges low would help them get more patients. However, the converse is true in the long run. By reducing treatment charges, a few of the “price-shoppers” can be lured to the clinics; but any attempt to increase the treatment charges will inadvertently meet with a lot of resistance. It is best not to put ourselves in this rut. All treatment charges must be adjusted for annual inflation that is 6-8%.

- **Indemnity Insurance:**

  All of us must protect ourselves from litigation, libel, slander and fraudulent practices of others. Luckily, many institutions provide group insurance to dentists.

  All hospitals must recruit dental surgeons in their panel of experts and specialists.

  All dental professionals must engage socially and professionally in order to take stock of each other's issues and those plaguing dentistry in India. Our Associations must speak for their patrons when any injustice occurs. They must vouch for all dentists in their periodicals and also become the mouthpiece of the dental community. There should be no ill will amongst us.

- **The Wow Factor:**

  We must incorporate the systems in our practice that make the patients' experiences joyful, so that their visit to the dentists' office becomes something what they actually look forward to.

- **Referrals:**

  All of us must consent to a system of referrals where everyone gets to work on our specialities, without squabbling amongst ourselves for patients. An alternative to this idea would be visiting consultant specialists.

- **Marketing:**

  There are legal ways of marketing services and we must invest in them. There is nothing wrong in it, as long as we adhere to the marketing norms of Dental Council of India (DCI). We must make the full use of it, in providing the best for our patients.

- **Changing with the times:**

  Dentistry has seen many changes in the past two decades for better. With the advent of superior materials and treatment modalities, we must also adapt to the changing tides, lest we become obsolete and fail to provide the best treatment to our patients.

  For example: Amalgam restoration must be done away with, since it belongs to another era, when other filling materials were not available. Another example would be to invest in a Digital X-ray since it requires less radiation exposure and also reduces patient's chair side time. With time and experience, we should upgrade our practices with modern, advanced and easier-to-use equipments like intraoral sensors, Lasers, Orthopantomogram (OPG), Computer-aided design (CAD) / Computer-aided manufacturing (CAM), Cone beam computed tomography (CBCT), patient management software and others. The trick is to do away with anything that prevents us from providing the best for our patients.

- **Group Practice:**

  This is the most important aspect of Dentistry of the future, though no one talks about it. The future of Dentistry lies in group practice, irrespective of rural or urban localities.

  This is the only way to curb the overcrowded melee of dental clinics that are seen everywhere. This will ensure that every newcomer gets an adequate residency program fulfilled and then can be bought into the same practice when he / she has gathered enough skills and experience.

  It is prudent in many ways, as this will benefit the patients the most, where they get all dental and oral solutions under one roof. Besides, our field will also get decluttered in that effort.

  More than that, all our liabilities can then be shared, without bothering about day-to-day overheads and micromanagement. Delegation of duties is an essential aspect of Group Practice.

The Future of Dentistry in India warrants a complete overhaul and paradigm shift from our present way of thinking and practice. However, with proper cooperation and good leadership, the Utopia of Indian Dentistry is possible, provided we do not dwell much on the past and rectify all our follies in the present. DC

Dr. V.P. Gangadharan is a renowned, Oncologist hailing from Kerala who established the first Department of Medical Oncology in Kerala, at the Regional Cancer Centre, Thiruvananthapuram and blood stem cell transplantation units, both in government as well as private sectors, in the State

A RENDEZVOUS WITH A CRUSADER OF CANCER

Dr. V.P. Gangadharan is a renowned, Oncologist hailing from Kerala who established the first Department of Medical Oncology in Kerala, at the Regional Cancer Centre, Thiruvananthapuram and blood stem cell transplantation units, both in government as well as private sectors, in the State.

He started his career as a tutor in Radiotherapy as well as Medical Oncology.

He underwent bone marrow transplantation training programs both in the United States of America and United Kingdom, with the fellowships of National Cancer Institute and World Health Organization.

Dr. V.P. Gangadharan, in an interview with "The DentCare", appraises the all-pervading influence of cancer.

According to the Indian Council of Medical Research (ICMR), India is likely to have over 17.3 lakh new cases of cancer and over 8.8 lakh deaths due to the disease by 2020, with malignancies of breast, lungs and cervix topping the list. How long do you expect the reign of cancer to last?

As of now, cancer is going to be there, in the near future. It is not possible to eradicate the disease completely. All cancers are not preventable, curable and screenable. But, 50% can be prevented.

Only after taking comprehensive preventive measures to check the incidence of cancers of the lungs, breast, cervix and hernia, we can say that we have eradicated 50% of malignancies in India.

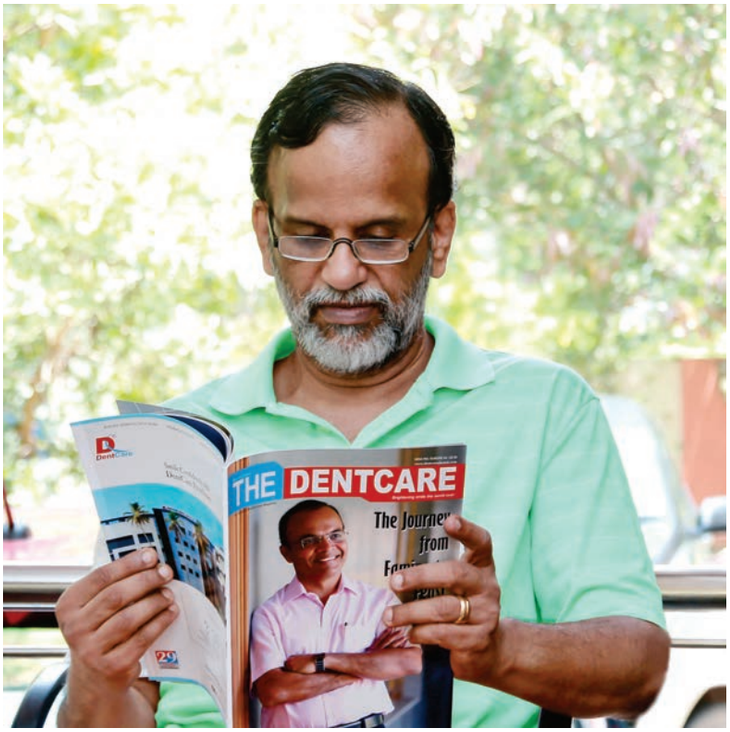
Why do we not think of doing it? That is what we do not think at all; the question which has always been asked is about the possibility of cure. Now, the thrust should be on preventive and screening programs.

Prevention should be the first aim of cancer treatment, screening the second and cure the third.

How active are the Preventive and Screening Programs in India? What are the Challenges being faced by our Oncologists?

There are no organized screening / training programs or fixed strategies in our country. Government should be keen on building more hospitals with cancer care units.

Lack of proper awareness among the patients is one of the major challenges being faced by oncologists, in taking adequate precautionary / preventive measures.



The first impediment is that there is no plan for its detection. Even if detected, people will not come forward for treatment, due to the stigma of cancer. Some think that it will affect their daughter's marriage / themselves and are not ready to disclose that they are a cancer patient. Also people have a false belief that it is contagious.

Breast Cancer is the Leading Cause of Cancer among Women in India. What could be the Reasons?

People are still unaware about the gravity of cancer. The awareness about the disease is totally lacking in India. Almost two third of breast cancer patients come up for treatment, only in the advanced stages and as a result, it is very difficult to get a complete cure.

Breast cancer is curable if detected early; so the thrust should be to educate women to do self-examination and go for treatment, if there is any suspicion.

Currently, not a single female goes for a screening program, except a very few, who lives in cities.

Though the technological / treatment modalities have increased manifold, the absence of fixed strategy in the hospitals has deteriorated the situation.

In Western countries, there are fixed strategies, where people have to undergo a screening program, before entering a new job or changing to a new one.

When you go to a hospital, what they are doing is just checking the lipid profile, blood pressure, sugar level and electrocardiogram (ECG),

Before visiting, I knew about DentCare. It is really a nice place, particularly their work culture that is seldom seen, quality they maintain and the advanced technology being used.

DentCare is one of the very few places which I appreciate

which are not sufficient in detecting / diagnosing malignancies.

Therefore, Government should evolve a fixed strategy that makes screening for cancer mandatory, for all people in India.

Is Lung Cancer one of the Leading Cancers among Men in India?

Yes. Lung cancer is not screenable. Some lung cancers occur in people who have no known risk factors. In most cases, the disease would be diagnosed only when it has spread widely / in an advanced stage and as a result, it becomes very hard to cure it completely.

In 90 per cent of lung cancers, the risk factor is smoking and the remaining 10 per cent passive smoking.

If the focus is on prevention and screening, the country will witness a visible change in a decade.

What type of Cancer is Genetic?

The genetic factor affects only five percent cases. But in certain cancers like breast cancer in young females, the link may be to family history. Such females should go for screening at an earlier age.

What are the most Common forms of Cancer Treatment and why do they not always Work?

The common treatment modalities are surgery, radiation, chemotherapy, targeted therapy, hormonal therapy and synthetic lethality.

Cancer cell is much more intelligent than the person who harbors or treats. The Cell always learns to evade the effects of treatment.

There is no screening test / methodology to ensure that a person is 100% cancer-proof; cancer is much more heterogeneous, unlike other diseases.

The causes of cancer differ from person to person, diagnostic techniques are different, treatment is different and chance of cure is also different. It is not just one disease, but a spectrum of diseases.

Would you disclose the Factors behind the Success of your Personal and Professional life?

(Laughs) The answer is how you define success. The definition of success has to be redefined. If success is in terms of money, then I am not successful; in terms of hierarchy in profession, then also not successful.

The criterion I always put across in defining success is the love, warmth, accolades and gifts received from my patients; suppose, if I receive Prasadam from Sabarimala, a Cross from Velankanni and ZamZam water from Mecca without being asked, then I am successful.

I see their love and affection. If that is considered as the criterion for success, then I am successful. If I can sleep at night peacefully without any dismay, I count as success in life.

Your Therapeutic approach blends Professional skills with Compassion. Can you relate its relevance in the sphere of Healthcare?

Of course, it is important especially in our country. We cannot treat a person, especially a cancer patient, without knowing holistically. We should be at par / in tune, along the same line with the patient.

In a country like India, we cannot treat a patient without knowing his background, unlike in Western countries, where there is comprehensive insurance coverage. So, it is necessary to establish a good rapport with the patient, to do justice to the profession.

Would you share the Experience of visiting DentCare?

Before visiting, I knew about *DentCare*. It is really a nice place, particularly their work culture that is seldom seen, quality they maintain and the advanced technology being used.

DentCare is one of the very few places which I appreciate.

For The DentCare
Interviewed by
Ms. Nisha Philip Xavier

Customer Euphoria!!!

Mr. K. J. George, Minister Bengaluru Development and Town Planning, Karnataka State, chose to be treated with a two unit DentCare Zirconia prosthesis from Dr. Raphel Parambi's clinic, Bengaluru, Karnataka. Thank you Sir for giving us the honor to brighten your smile.

An Answer for the Pursuit of Excellence

Dr. Chandresh Shukla, Member of Dental Council of India witnessing the excellence along with Dr. Eapen Cherian, Dr. Amal Saji, Mr. Saju Kuriakose (Director, DentCare) and Mr. Jomon George (AGM Export Marketing).

Congratulations

DentCare extends warm congratulations to Dr. Eldo Koshy for obtaining the prestigious Fellowship of the American Academy of Implant Dentistry (AAID). He is the only Implantologist from India to win the Fellowship in 2017. His name is listed in the 'Find the Dental Implant Experts', the official directory of American Academy of Implant Dentistry Credentialed Members.

The Fellowship certificate and medal were awarded to him at the Annual Conference of the AAID at San Diego in October 2017.

Neem: Nature's Potent Healer

Medicinal plants, from the dawn of civilization, are considered as a part and parcel of human society in combating diseases.

Herbal medicines are a fast emerging trend in recent times, as they provide safer, effective and an economical treatment option to patients.

It is a known fact that numerous pharmacologically active drugs have been derived from natural resources, including medicinal plants. The medicinal plants or their natural products play an important role in preventing and treating diseases, through their enhanced antioxidant activities, inhibitory effect on bacterial growth and modulatory effect on genetic pathways.

The therapeutic role of a number of plants in disease management is still being enthusiastically researched on, due to their less side effects and affordable properties.

Herbal medicines can also be considered as an alternative to many allopathic drugs, as the ones based on allopathy are expensive and also exhibit toxic effects on normal tissues and on various biological activities.

Among the various medicinal plants, Neem is considered as one of the most versatile, having a wide spectrum of biological activities.

What is Neem?

Azadirachta indica (Neem) belongs to the Mahogany family, Meliaceae and is one of the two species of the genus, Azadirachta. It is mainly found in tropical and semi-tropical regions of India, Pakistan, Nepal, Bangladesh etc. It has been described as Azadirachta indica, as early as 1830, by De Jussieu.

The term 'Azadirachta' is derived from the Persian words “Azad” meaning free and “dirakat” meaning tree. And 'indica' means 'of Indian origin' and hence, it signifies 'free tree of India'.

Neem has two closely related species: Azadirachta indica A. Juss and

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Melia azadirachta; the former is popularly known as the Indian neem (margosa tree) or Indian lilac, and the latter as the Persian lilac.

Siddiqui was the first to identify medicinal properties of Neem in 1942. He isolated Nimbin and Nimbinin along with a bitter component Nimbidin from Neem oil. Apart from these, more than 135 compounds have been isolated from the different parts of Neem.

Biological Properties of Neem

Among the different compounds that have been extracted from Neem, only a few, whose bioactivities have been studied, are presented here.

Nimbidin, a major crude bitter compound extracted from the seed kernel oil of Azadirachta indica, has demonstrated several biological activities.

Nimbidin and sodium nimbidate possess significant dose dependent anti-inflammatory, antipyretic and antifungal activities.

A significant antiulcer effect was observed with Nimbidin in preventing acetylsalicylic acid, indomethacin, stress or serotonin-induced gastric lesions as well as histamine or cysteamine-induced duodenal ulcers.

Nimbidin also acts as an antihistamine by blocking Histamine H2 receptors and hence, acts as an antiulcer agent. It also shows antibacterial activity against Staphylococcus aureus and Staphylococcus coagulase.

Gedunin, isolated from Neem seed oil, possesses both antifungal and antimalarial activities.

Azadirachtin, which is isolated from Neem seed, has been demonstrated to have antimalarial properties, as it inhibits the development of malarial parasites.

Neem in Oral Diseases

The crude extract of different parts of Neem has been used as traditional medicine for the treatment of various diseases in India, from time immemorial.

- **Antibacterial Activity**

Azadirachtin and Nimbinin are the principal constituents of Neem extract responsible for their antibacterial properties. Neem leaf extract has shown significant reduction in plaque index and bacterial count, especially Streptococcus mutans and Lactobacilli species.

Elavarasu et al in their study demonstrated the definite antiplaque activity of Neem oil.

Hedge and Kesaria revealed the excellent efficacy of Neem extract in inhibiting the most resistant species; Enterococcus fecalis and Candida in root canal disinfection.

Adyanthaya et al studied antimicrobial effect of methanol extract of Neem twig and suggested the incorporation of methanol extract of Neem twig into oral care products.

- **Antifungal Activity**

Extracts of Neem leaf, Neem oil and seed kernels are effective against certain human fungi, including Trichophyton, Epidermophyton, Microsporum, Trichosporon, Geotricum and Candida.

An in vitro study, conducted by Mahmoud et al to evaluate the effect of aqueous, ethanolic and ethyl acetate extracts from Neem leaves on the growth of various fungi species, revealed that alcohol based Neem extract has excellent inhibitory effect on fungi.

- **Anti-cariogenic Effect**

Neem bark extract has shown significant anti-cariogenic properties on various cariogenic bacteria, such as Streptococcus mutans, Streptococcus salivarius, Streptococcus mitis, and

> The medicinal plants or their natural products play an important role in preventing and treating diseases, through their enhanced antioxidant activities, inhibitory effect on bacterial growth and modulatory effect on genetic pathways

Streptococcus sanguis at various concentrations and the antibacterial properties were seen even at 5% of concentration.

Almas Khalid in his study showed the inhibitory effect of Streptococcus mutans and Streptococcus faecalis at 50% concentration of Neem bark extract.

- **Ant-inflammatory Role**

Neem extract has shown efficacy in reducing acute as well as chronic inflammation. Neem mouth rinse can be used for gingival and periodontal diseases, as Neem extract has shown the significant reduction of plaque and gingival inflammation.

Chatterjee et al suggested in their study that Neem extract mouth rinses are effective in controlling plaque-induced gingivitis. They also suggested that such mouth rinses had fewer long-term use side effects than Chlorhexidine mouthwashes.

- **Immunostimulatory Activity**

The crude aqueous extract of Neem bark possesses an inhibitory activity on both alternative as well as classical pathway of complement activation.

Neem leaf extract at 100 mg / kg, after three weeks of oral administration, results in higher levels of Immunoglobulin M and Immunoglobulin G.

The aqueous leaf extract possesses potent immunostimulatory activity as evidenced by both humoral and cell-mediated responses.

Neem oil also selectively activates the cell-mediated immune mechanisms, to elicit an enhanced response to subsequent mitogenic or antigenic challenge.

- **Antioxidant Properties**

An antioxidant principle has also been isolated from Azadirachta indica, which is a potent inhibitor of plant lipoxygenases. It also prevents oxidative and hydroxyl ion-induced mucosal damage and also possesses an antiulcer effect.

Pandey et al found that phytochemicals in Neem showed significant free radical scavenging activity which helps implicate its incorporation in various orofacial and skin ailments.

- **Anticancer Effects**

The anticancer effects of Neem are mainly due to the inhibition of cell proliferation,

induction of cell death, suppression of cancer angiogenesis, restoration of cellular reduction / oxidation (redox) balance and enhancement of the host immune responses against tumor cells.

Neem may exert its chemopreventive effect in the oral mucosa by the modulation of Glutathione and its metabolizing enzymes.

Neem extracts also sensitize cancer cells to immunotherapy and radiotherapy by enhancing the efficacy of other chemo and radio therapeutic agents.

Therefore, Neem extract can be employed as an adjunct to chemoradiotherapy for oral and head as well as neck carcinomas.

Conclusion

Neem is nature's gift to mankind for the treatment and prevention of various health ailments. As the global scenario is now moving towards the use of non-toxic traditional medicines, the use of Neem can be emphasized for the treatment and control of various diseases.

Henceforth, extensive research and development activities should be undertaken on Neem and its various products for their better therapeutic utilization, so that Neem extracts could be incorporated in dental care products as well as in the treatment of various oral premalignant and malignant lesions. DC

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A Tool to Facilitate Parent–Child Relationships

When you ask me, "What did you do at school today?"

I would say, "I just played, please do not misunderstand me."

"See, I am learning as I play, I am learning to enjoy and trying to be successful in my work. I am preparing for tomorrow."

"Today, I am a child and my work is play".

We live in an era where the importance of play, for the proper development of children, is grossly undermined. Play is an underappreciated, yet an essential and inevitable component of child development.

Play can be defined as any spontaneous or organized activity that provides enjoyment, entertainment, amusement or diversion.

Play is a very essential tool to promote cognitive development of children, as it can be a means that helps children learn to operate on their surroundings, understand the science of things around them, promote to build adequate social interactions and where they unknowingly build their imagination, problem solving capacity, creativity, inquisitiveness and much more.

Unfortunately, the academic module of the present-day poses a heavy demand of time from children, right from lower grades itself that parents unknowingly decide to cut down their playtime.

Playtime is very important for children, right from birth itself. It is rightly stated that parents are the best toys that children can have.

There are different ways a mother or a parent can engage

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children across the different stages of growth. Following are a few of them.

For a new born baby of up to three months of age, tummy time and an emotionally happy surrounding will pave a good way for strengthening their muscles and facilitating brain development. Although neonates and Infants can perceive the emotions around them, they do not seemingly respond to them.

For babies up to six months of age, parents can sing songs to them and start showing them pictures from kindergarten books. Although they may not appreciate the figures, they would enjoy seeing the colours. Parents can also recite action songs, so that the changing facial expressions may help bring giggles on the child's face.

> Talk and sing to them as much as you can. Their fast developing memory will pick up the vocabulary and this will play a vital role in language development

Parents can take them for evening strolls and show them various objects in nature and tell their names. Talk and sing to them as much as you can. Their fast developing memory will pick up the vocabulary and this will play a vital role in language development.

From about six months to one year of age, as babies begin to move around, mothers can start playing peek-a-boo, a swinging game to encourage vestibular responses and a ride on a blanket sweeping the floor, after making sure that they are good with their sitting balance. A discovery basket can also be prepared for toddlers, to enjoy pulling out various objects wherefrom.

For toddlers from about one to two years of age, parents can engage in painting activities, dropping balls into a container, a ball throwing game, building a tower and knocking it down, counting objects and so on.

The daily objects of use, such as vegetables and fruits, can be better toys for children, provided adequate safety precautions are taken.

For kids from two years of age, cycling games, reading as well as reciting stories and running about trying to catch their parents could be better.

After three years, they can be engaged in some cooking sessions, cleaning the house, visiting places in the vicinity etc. There are several such ideas which are easily available on the social media.

Amidst busy schedules, parents ought to take some time out, to transform themselves into toys for their children. It might take the toll out of us, but is rewarding, as it facilitates better emotional attachment between us and our children.

Lack of time may force us to use screen time i.e., our mobile phones and computer as well as video games to engage our children. But screen time is detrimental to children up to 2 years of age. It retards their cognitive development and tends to build addiction towards it.

Games involving physical activity of the child, such as running and moving around; self exploring the surroundings; playing with other children - in contradiction to virtual games like video and the mobile games - help promote greater intellectual development, as they help generate more neural connections in the their fast growing brain. They not only promote cognitive skills, but

also tire them physically, which in turn can help them develop good sleeping patterns.

Children always need new toys and activities, which make it difficult for the parents, to entertain them. However, a little bit of creative thought and some committed as well as undisturbed time can do a lot for children.

However, things around us may get messy which necessitate greater effort in cleaning them up, but the pain involved therein is less, compared to the benefits our children going to reap.

Mothers can also try to respond adequately to their children's emotional and physical needs.

Responding adequately to situations is also shown to aid in cognitive development.

Sometimes a crying child may anger us, but being patient and identifying the reason behind it will help console the child, which in turn, lays foundation for children in building trust with their parents.

Responsive care is the process of watching and tuning to the cues shown by children and thinking about what their behaviour might mean and responding in a sensitive way. Responsive care is a very important aiding factor to intellectual development in childhood.

A robust body of research has recently confirmed that things like magic in everyday moments, showing affection, comforting, playing with children etc. will help build strong healthy brains.

Responsive care is a very important aiding factor to intellectual development in childhood

The first few years of development, mainly up to five years, are uniquely important because this is the most sensitive period for brain development in children.

The experiences in childhood will help shape the architecture of their brain and build connections that allow children to develop lifelong skills, such as problem solving, communication, self-control and relationship building, which in turn, help their nurture and thrive within their families, communities and culture.

Busy daily schedules, a fast advancing world, stiff competition, our unquenchable thrust to prove that we are very good and our offspring are even better than us etc., drive us to compromise on certain vital factors, necessary for the holistic development of children.

We unknowingly ignore some of these factors. A little bit of time and consideration will help build a healthy relation between us and our children.

Let us ponder upon including some of the aforesaid suggestions in our parenting styles, for building a better and healthier generation.

Digital Analysis in Bite Mark Investigation

Part - I

Bite Mark Investigation and Digital Analysis have been used in criminal investigation for collecting and analyzing the scientific evidence during the course of an investigation.

Identification of a suspect by matching his dentition with a Bite Mark found on the victim of a crime rests on the theory that each person's dentition is unique.

History

Early known case of comparative dental identification method – reported in 1193 AD - was related to the Maharaja of Kanauj of Uttar Pradesh who was killed in a battle. To confirm his death, the enemies examined all the soldiers killed in action, as they got the information about the Maharaja's artificial teeth. By detecting the dentures, they confirmed the death of the king.

About sixteen years ago, there was a shift in the method of Bite Mark analysis from the traditional manual method to digital one with the proliferation of computer hardware devices like scanners and software programs like Adobe Photoshop.

A digital analysis is performed by checking the amount of distortion, correcting the distortion and converting an image to life-size with American Board of Forensic Odontology (ABFO) No. 2 – Inches Photomacrographic Scale.

Another known case was related to Mr. Rajiv Gandhi, the former Prime Minister of India, who was killed in 1991 by a suicide bomber. The assailant was later identified with the help of Bite Mark investigation.

More recently, Dr. Ashith B. Acharya, a Forensic Odontologist helped identify the culprits behind the gang rape

Dr. Deepthi S. Nair
Dental Practitioner and Forensic Odontologist
Kollam, Kerala, India

case that took place in Delhi on 16 December 2012, with the help of Bite Mark analysis.

Bite Marks

According to Mr. Mac Donald of the Department of Oral Medicine and Pathology, Glasgow Dental Hospital and School, Scotland, a Bite Mark is a mark caused by the teeth either alone or in combination with other oral parts. The injuries can be due to an attack or defense; Attack injuries are those which are present in the victim's body whereas defensive ones are present in the suspect's body.

Classification of Bite Marks

- **Cameron and Sims' classification:**

A simple classification based on the type of agent producing the bite marks and material exhibiting it.

Agent: Human and Animal.

Materials: Skin, body surface, food stuff and other materials.

- **Mac Donald's classification:**

Most commonly followed classification and it is an etiological classification.

According to Mac Donald there are three types of Bite Marks - Tooth Pressure Marks, Tongue Pressure Marks and Tooth Scrape Marks.

Collection of Bite Marks

According to Mac Donald, Collection of Bite Marks is done in the following ways:

- Photograph of the bite victim
- With or without American Board of Forensic Odontology (ABFO) No. 2 - Inches Photomacrographic Scale
- In color and black and white
- On and off camera flash (Oblique Flash)
- An overall body shot showing the location of an injury
- A close-up that can be easily be scaled 1:1
- Ultraviolet (UV) photography if the injury is faded

Pattern Analysis in Bite Mark Evidence

- Biometric analysis
- Transparent overlay-dental cast of the suspect
- Biting edges reproduced in transparent sheet
- Overlays placed over the scale 1:1
- Photographs of the Bite injuries compared

What is Forensic Dentistry?

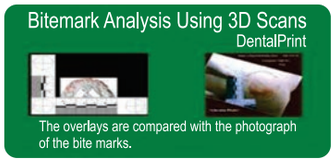
Federation Dentaire Internationale (FDI) defines Forensic Odontology as a branch of science which in the interest of justice, deals with the proper handling and examination of dental evidence for the proper evaluation and presentation of dental findings. It is the clubbing of both the law and dentistry that enables the proper utilization of dental findings for judicial applications.

Forensic derives from the Latin word 'forensis', meaning a forum or where legal matters are discussed.

Forensic Odontology is widely used in western countries for getting dental evidence in Forensic identification.

Bite Mark Analysis and Comparison using Image Perception Technology

According to Van der Velder, M. Spiessens, G. Willems (Bite



Federation Dentaire Internationale (FDI) defines Forensic Odontology as a branch of science which in the interest of justice, deals with the proper handling and examination of dental evidence for the proper evaluation and presentation of dental findings

The process of comparing a Bite Mark with a suspect's dentition includes - analysis and measurement of the size, shape and position of his individual teeth

Mark Analysis and Comparison using Image Perception Technology, Journal of Forensic Odonto-Stomatology), the Standard Technique for examining a Bite Mark is based upon the interpretation of photographic evidence, in which a Bite is compared with the impression of the teeth of a suspect.

The human skin has a very poor Bite registration. The Bite Mark will appear as a double arched pattern or a homogeneous bruise and can be distorted by the elastic properties of the skin tissue or by the anatomic position. The pressure of a Bite and angle of the Maxilla as well as Mandible can change the appearance of a Bite Mark.

The process of comparing a Bite Mark with a suspect's dentition includes - analysis and measurement of the size, shape and position of his individual teeth.

The comparison methods involve: Fabrication of overlays from a suspect's dentition, Hand tracing from a dental study cast, Hand tracing from a wax impression, Hand tracing from a Xerographic image, Radiopaque wax impression method and Computer-based method.

There is also another method of comparing and analyzing the photographs of a Bite Mark with overlays of a suspect's impression of the Tooth using an Image Perception Software.

Digital Analysis of Experimental Human Bite Marks

Application of Two Methods

According to the authors - Al-Talabani N, Baker FA and et al. (Digital Analysis of Experimental human bite marks: Journal of Forensic Sciences), Bite Mark determination in Forensic Odontology is commonly performed by comparing the morphology of the dentition of a suspect with the life-sized photograph of the injury on the victim's skin using transparent overlays or computers.

The purpose of the study is to investigate the suitability of the two methods for the identification of Bite Marks with digital analysis.

A group of fifty volunteers were asked to make experimental Bite Marks on one another's arms. Stone Study Casts of the upper and lower Dental Arches of each volunteer were prepared. The Bite Marks and Study Casts were photographed and the photographs were uploaded in the computer and the result was analyzed using an Adobe Photoshop software program.

The two methods - Two-dimensional (2D) Polylene and Paint - were used for identification.

In 2D Polylene method, the fixed points were chosen on the tips of the canine and a straight line was drawn between the two fixed points in the arch (intercanine line). Straight lines passing between the edges of the incisors were drawn vertically on the intercanine line, the lines and angles created were calculated.

In Paint analysis method, identification was based on the distance between one canine and another, the tooth width as well as thickness and rotational value of each tooth.

The result showed that both methods were feasible. However, 2D Polylene method was more convenient and gave prompt computer based results, whereas Paint analysis method relied upon the visual reading of the operator.

To be continued...

Renfert

making work easy

How to find the right dental microscope

When it comes to precision, microscopes are a great help

It is reliable and popular and it facilitates the work for many dental technicians: the dental microscopy. Light microscopy technology has been used since the end of the 16th Century to magnify structures that can only be distinguished with difficulty or not at all with the naked eye. This effect is achieved with the use of optical lenses.

There are many different microscopes on the dental market and at least as many differences between them. This blog give you a short, simple description of how an optical lens should be, which lighting also illuminates the minutest details and also what features are good in a microscope in terms of handling.

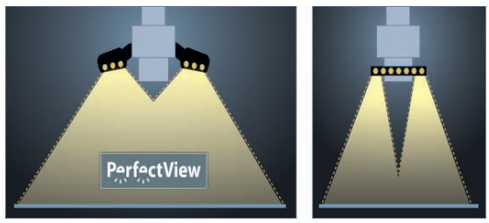
The optics

The decisive aspect for producing a sharp image with a digital camera is not the number of pixels but the quality of the optics. This also applies to microscopes: it is not the greatest possible magnification but the quality of the lenses that defines the difference in quality. In geometric optics a differentiation is made between spherical and aspherical lenses, whereby aspherical lenses have a big advantage: they do not distort the margins, so that the object can be seen completely sharp in focus.

Lighting

Good optics in the microscope are not any use if the object disappears in the darkness. Only the correct

lighting ensures a better view. It is essential that the lighting should be matched to the microscope, as otherwise it may be the case that the focus, which is defined by the working distance, lies outside the beam of light. Laterally arranged LED lighting with different luminous intensities have proven particularly successful in microscopy. They also enable contrast-rich surface assessment (diffused light) and also guarantee good illumination (directed light) with different materials.



In contrast to microscopes with ring lights (right illustration) the LED light of the Mobiloskop S (left illustration) produces a contrast-rich surface with simultaneous high illumination.

Working distance

If the working distance between the microscope and object is too small, it can result in the observer experiencing long-term stresses and back pain. In contrast, the correct distance promotes ergonomic working. The working distance should therefore not be too small, so that the dental technician can assume a comfortable, upright posture. A distance of 150 mm (5.91 inches) has proven to be an optimal working distance.

Support arm

The support arm has two important functions: it holds the microscope in the required position and ensures that the hands and working space are free during microscope operation. However, still further properties are practical in the dental laboratory: as a microscope is not available for every technician, the support arm should be able to swivel around 360 degrees and have an adequately large radius of action – this also provides colleagues with a fresh view of their work. The spring tension for this should be designed, so that the weight of the microscope and lighting is reliably maintained during maximum extension.

Convenience

In addition to the attractive and timeless optics, the operating convenience is also an important criterion for purchasing a microscope. Simple pushing away and pulling towards one is now taken for granted. Screw clamps, which are suitable for both thin and thick worktops, have proven successful in ensuring quick, flexible installation of the support arm.

The Mobiloskop S

With the Mobiloskop S Renfert has developed a dental microscope, which provides dental technicians with a flexible and reliable support during precision work and control of details. It meets all light optical and technical requirements of a modern microscope. Thus it combines optics, which have been proven over decades, with innovative, laterally arranged LED lighting (according to the PerfectView concept) and now also with an optimized, infinitely adjustable support arm which can be used for up to four workplaces. Renfert has been successful in further improving a product which was already good. In brief: the Mobiloskop S provides dental technicians with a significant increase in precision and an optimum view of details, promotes efficient handling and saves technicians from developing head and back pain!"

Oliver Bothe is a certified German Master Dental Technician and has been working as a Product Manager for Renfert GmbH since 2011. After completing his MDT qualification in Freiburg/Germany in 2000, he worked for Dental-Concept Rainer Semsch and also gained experience in dental research while working at the University of Freiburg, Department of Prosthetic Dentistry. From 2004 to 2005 he successfully initiated and managed the CAD-CAM technology center of Germanys biggest Lab Group Flemming-Dental in Leipzig/Germany. Subsequently from 2006 to the end of 2010 he worked as Product Manager Dental for the Swiss ceramic manufacturer Metoxit AG and was active as a lecturer for dental oxide ceramics at the LMU University in Munich (Curriculum Cad/Cam), as well as speaking at many dental congresses and conventions. Since June 2014 Mr. Bothe is also responsible for the Product Marketing Management of dental equipment at Renfert.

A Few DentCare Products at a Glance

DentCare Dental Lab has embedded itself with an objective to bring together the world's preeminent branded materials of proven quality and high end technologies. Most recognized brands like Ivoclar Vivadent, Shofu, EOS, 3Shape, 3M ESPE from Germany, Switzerland, United States, and Europe are selected for manufacturing its extensive range of dental prostheses.

Over the past 30 years we have dedicated ourselves to contribute healthy, confident smiles to over 30 million patients and for the delight of more than 30 thousand dentists around the globe.

The range of services DentCare has to offer is unique and comprehensive; its product portfolio comprises individual Dental Crowns and Bridges Implant restorations and Partial / Full denture prostheses. The company strongly believes that technology, hand in hand with art, fused with latest know-how, results in dental restorations with greater precision, aesthetics and functionality.

DentCare Zirconia

The paradigm shifts in dentistry for lifelike restorations that mimic natural tooth structure based on perceived and actual aesthetic and functional patient demands has led DentCare Dental Lab to offer DentCare Zirconia - a Revolution in Metal Free Prostheses.

DentCare Zirconia is biomedical grade Zirconia made in Germany. Available in diverse options, the DentCare Zirconia range of products assure natural feel and functionality, unmatched aesthetics and unlimited characterization made available through more than 40 natural and lifelike shades.

It is manufactured using an innovative Computer Aided Design / Computer Aided Manufacturing (CAD / CAM) technology offering perfect fit and marginal adaptation to the final product. This unique material provides full scope for cement retained crowns and bridges on natural teeth (up to 16 units as a single restoration) as well as cement and screw retained solutions for implants (single and multiple–unit).

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. Each DentCare Clear Aligner is unique as it is customized for the patient's teeth. They can be easily changed every two weeks, sparing users the tedious task of heavy maintenance.

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 spent quality, value-added time with each patient.

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. The treatment consists of a revolutionary system which integrates the latest software and 3D CAD / CAM technology.

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.

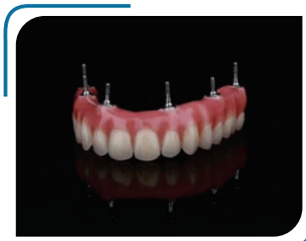
Dental Implant Prostheses

Dental Implants are popular and effective to replace missing teeth and are designed to blend in with other existing teeth. They are an excellent long–term option for restoring smiles with uncompromised functionality.

Different variants of Implant Prostheses are offered by DentCare and may be made available as Screw Retained or Cement Retained crowns / bridges.

Screw-Retained Hybrid Dentures

'Hybrid denture' is referred to as hybrid because it combines the advantages of a fixed replacement with those of a removable denture. Patients regain self - esteem, confidence and can enjoy wider variety of food.



The variants available are:

- Titanium (Milled) with acrylisation - manufactured using CAD / CAM technology
- Titanium (Cast) with acrylisation
- Direct Metal Laser Sintered (DMLS) in Cobalt - Chromium with acrylisation - manufactured using CAD / CAM technology
- Cobalt - Chromium (Cast) with acrylisation
- Polyether Ether Ketone (PEEK) (Milled) with light cure composite - manufactured using CAD / CAM technology

Implant-Supported Overdentures

They are available as Bar Attachment / Ball Attachment Overdentures.

Implant-supported Overdentures are offered in various material options namely

- Titanium (Milled) manufactured using CAD / CAM technology
- Titanium (Cast)
- Direct Metal Laser Sintered (DMLS) in Cobalt - Chromium - manufactured using CAD / CAM technology
- Cobalt - Chromium (Cast)
- Polyether Ether Ketone (PEEK) (Milled) with light cure composite - manufactured using CAD / CAM technology

Removable Prostheses

DentCare has incomparable Removable dental prosthetic solutions with impeccable precision to recapture your oral function, aesthetics and liveliness. We have a number of removable dentures that are durable and akin to your natural teeth.

The range of removable prostheses are

➢ DentCare Flex

DentCare Flex is an aesthetically superior semi-flexible removable denture which blends perfectly with the natural gum tissue; providing better looks, function and comfort. It can be used in both complete and partial denture cases.

Benefits

- ➲ Aesthetically superior removable denture with full functionality and comfort
- ➲ Has the perfect degree of flexibility (semi-flexible) and is unbreakable
- ➲ No metal clasps; only tissue-colored clasps that blend with the gums
- ➲ More stain- resistant than other flexible Nylon Thermoplast
- ➲ Biocompatible and monomer-free, manufactured using injection molding system
- ➲ Suitable for combination options (with Cast Partials)
- ➲ Available in three different shades; soft pink, dark pink and intense pink

➢ Cast Partial Denture (CPD)

Cast Partial Denture (CPD) is used in cases with multiple missing teeth. It can be removed and placed back by patients themselves. It is ideal for patients for whom fixed Prostheses or dental implants are not indicated. CPDs can be fabricated using Titanium and Cobalt - Chromium Alloy.

Indications

- ➲ To replace several teeth in the same quadrant or in both quadrants of the same arch
- ➲ Ideal for patients for whom Fixed Prostheses or dental Implants are not indicated

1) Titanium Cast Partial Denture

Advantages

- ➲ Bio-compatible
- ➲ Light weight (Comfortable fit)
- ➲ High strength
- ➲ Aesthetically pleasing
- ➲ Longevity

2) Cobalt - Chromium Cast Partial Denture

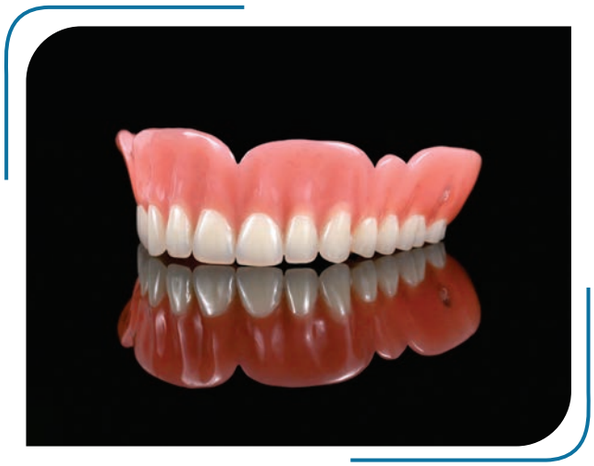
Advantages

- ➲ Free from Nickel
- ➲ Co-Cr alloy frame work
- ➲ Enhance stability
- ➲ Cost effective
- ➲ Aesthetically pleasing
- ➲ Perfect in Fit
- ➲ Longevity

➢ Bio Functional Prosthetic System (BPS Dentures)

DentCare offers BPS Dentures from Ivoclar Vivadent that is a long-lasting and high quality option for dentures meant to reproduce the functions of natural teeth. The biofunctional set-up philosophy along with the Model Associated Positioning (MAP) of the artificial teeth in combination with the

EOS Laser Sintering Machines, Made in Germany



pressure injection molding procedure is the cornerstone of this system. BPS can be used in partial or completely edentulous cases.

Advantages

- Strong
- Easy to Clean
- Accurate
- Aesthetically pleasing
- Precision in fit

➢ Acrylic Removable Complete and Partial Dentures

DentCare fabricates extremely natural looking Complete and Partial Dentures using acrylic and denture-teeth of the highest quality, imported from Germany and Italy.

The main advantage of these dentures is that, they are cost effective, yet uncompromising in terms of quality. Additional teeth and denture base can easily be added to an existing Acrylic Denture.

It is also the product of choice for Immediate Dentures and for Temporary Dentures in Implant patients.

➢ Valplast

The strong, flexible nature of Valplast is perfectly suited to a variety of natural conditions in the mouth, simplifying design and enabling the flexible nylon resin to act as a built in stress breaker, in order to provide superior function and stress distribution in the Removable Partial Denture cases.

It is good for replacing missing teeth in small edentulous cases and should not be opted for in situations where teeth need to be replaced extensively.

Advantages

- No metal clasp
- Offers better aesthetics, comfort and durability
- Rest seat not recommended for Valplast

➢ Bio Dentaplast

It is a high strength, injection molded, and biocompatible denture material.

Benefits

- Ideal for making tooth-colored clasps and attachments
- Suitable for combination works (with Cast partials)
- Metal Clasp-free partial dentures
- Available in five different shades: A1, A2, B1, B2, B3 as per VITA shade guide

Indications

- To replace several teeth in the same quadrant or in both quadrants of the same arch
- Ideal for patients who are not interested in a Fixed Bridge or Dental Implants
- Temporary Crowns and Bridges
- Tooth-colored occlusal appliances

Conclusion

DentCare strongly believes that technology, hand in hand with art, results in dental prostheses with greater precision and quality.

World-class products are the outcome of our passion in improving dental care. And this keeps us at the forefront of innovation. Our dental prostheses experts are passionate about exploring new ways to address challenges in enhancing the smile. All the materials we use in production have proven scientific quality and excellence. Dc

Smile confidently, go for DentCare Prostheses

SIALOCELE: A SEQULAE OF SUBCONDYLAR FRACTURE MANAGEMENT

The management of fractures in the region of the mandibular condyle is a controversial subject and hence, it is very difficult to arrive at a consensus about the best treatment approach.

Various open approaches for the internal fixation of mandibular condylar fractures have been summarized by Ellis and Dean. The transparotid approach ensures that the plates can be well adapted to and the screws can be placed at 90 degrees to the bony surface.

In transmasseteric anterior parotid approach for condylar fractures, the dissection plane through the masseter muscle, instead of the parotid gland, reduces the risk of Frey's syndrome, sialocele and salivary fistulas.

The iatrogenic causes of parotid fistula (PF) include mandibular osteotomy, the use of external pin fixation and the complication of facial fracture treatment.

What is Sialocele?

Sialocele is a collection of saliva beneath the skin and subcutaneous tissue associated with an injury to glandular parenchyma or ductal system.

In glandular fistula, the discharge is less and tends to heal spontaneously with conservative treatment, whereas ductal fistulas continuously discharge saliva and hence, spontaneous healing is very rare.

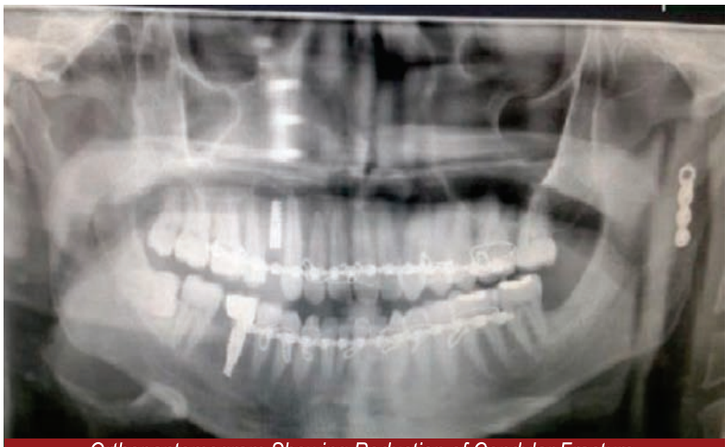
The clinical features include salivary extravasation into the tissues causing swelling over or adjacent to the parotid gland (sialocele), expansion of the neck mass and cutaneous fistula formation.

For successful treatment results, early detection and timely as well as appropriate intervention is necessary.

Transparotid approach for closure includes formal closure of the masseter and parotid fascia, which reduces the swelling and the possibility of a sialocele.

A Case Report

A 37-year old male patient reported to the Department of Oral and Maxillofacial Surgery with a chief complaint of pain, difficulty in closing his mouth and swelling on the left side of the face, following a road traffic accident.



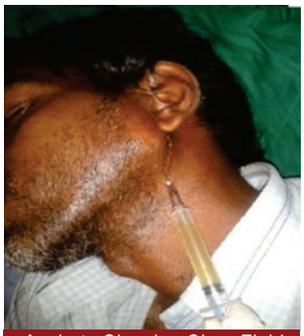
Orthopantomogram Showing Reduction of Condylar Fracture

Dr. R. Rajeev
Consultant in Oral and Maxillofacial Surgery
Kanyakumari, Tamil Nadu, India

Direct open reduction and internal fixation via transparotid approach of the left condyle were performed for left subcondylar fracture. Ten days later, the patient presented himself with a swelling on the left side of the face.

On extraoral examination, there were no clinical signs of infection or drainage in the surgical wound. More than that, there was no rise in temperature in the area. On intraoral examination, the salivary secretion through the Stenson's duct was relatively reduced on the left side.

Neurological examination revealed that there was no



Aspirate Showing Clear Fluid

motor impairment, due to the severance of any branch of the facial nerve, in the affected side. Aspiration was done on dependable swelling, which gained a 6 millilitre of clear, watery and odorless fluid, giving an impression of saliva. A laboratory test confirmed the presence of salivary amylase in the aspirate.

In this case, the trauma in the substance of the parotid gland has led to the formation of sialocele, due to the accumulation of extravasated saliva into the glandular parenchyma.

Pressure dressing and antibiotics were given to prevent infection. Postoperatively, repeated aspiration along with compressive dressing was performed, but there was no healing. Therefore, it was decided to place an intraoral drain, under local anesthesia.

After standard aseptic preparation, intraorally a 1-centimetre long incision was made on the external oblique ridge, behind the third molar. A pair of small curved artery forceps was inserted through the superficial fascia of the masseter to reach the sialocele.

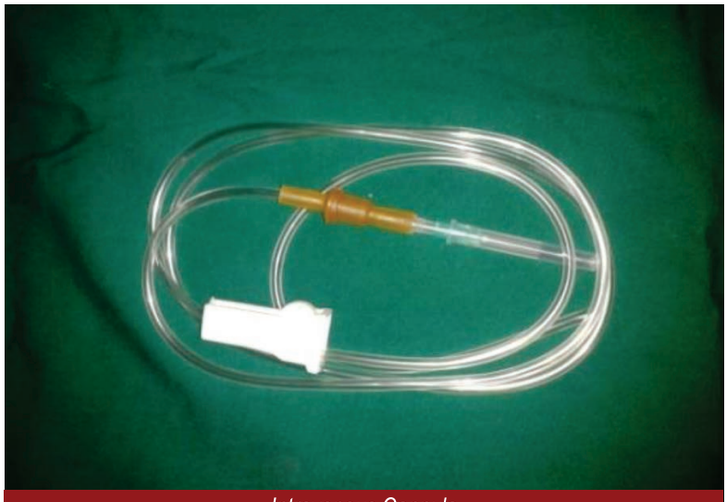
Approximately a 5-centimetre long, slender, sterile, punched plastic tube with a diameter of 5 millimetre (intravenous cannula) was positioned with one end in the glandular substance and the other in the mouth, with the help of forceps. The tube was secured along the vestibule by suturing to the mucosal surface of the cheek, ensuring complete convenience of the patient.

After placing the drain, there was no pooling of saliva in the glandular substance. This would have allowed early healing of the gland and subsequent formation of the structures necessary for drainage through the main Stensen's duct. The patient's recovery was uncomplicated and necessary follow-ups were done for 5 months.

Discussion

The injury to the parotid duct may be difficult to diagnose. If not detected earlier, saliva will extravasate into the tissues leading to sialocele; a nonepithelialized fluid-filled cavity, through continuous salivary secretion without proper drainage.

The clinical features are swelling over or adjacent to the parotid gland, expansion of



Intravenous Cannula

neck mass and cutaneous fistula formation. In glandular fistula, the discharge is less and hence, there will be spontaneous healing with conservative management.

The conservative management is based on the regular aspiration of the content and compression dressing, leading to atrophy of the gland. The rise in ductal pressure leads to the compression of the capillaries and veins, resulting in decrease in the secretion and atrophy of gland. However, there is no adequate proof supporting this.

Anticholinergic agents are to be used to suppress the glandular function during healing, which will close the fistula or resolve a sialocele spontaneously.

The most commonly used drug is propantheline bromide (Pro-Banthine) which inhibits the action of acetylcholine at the postganglionic nerve endings of the parasympathetic nervous system.

However, these agents have many undesired side effects, such as xerostomia, constipation, photophobia, tachycardia and urinary retention.

Five milliliters of 3% warm hypertonic saline (600C) was injected into the parotid gland through fistulous opening, followed by pressure dressing repeated for 3 days, resulted in the fibrosis of the gland parenchyma and spontaneous closure of the fistula with no complications.

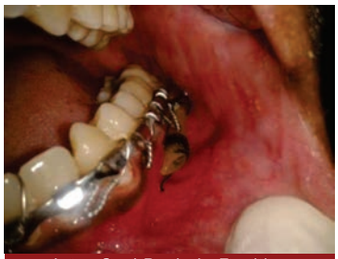
Radiation therapy induces fibrosis and atrophy of the gland. Approximately 1800 rads for more than 6 weeks are required for refractory salivary fistulas.

Fibrin glue has also been used recently; however, it is said that fibrin glue is rendered inactive by saliva leading to the recurrence of fistula.

Recently, good results have been obtained with the local injection of botulinum toxin, which prevents the release of acetylcholine at the neuromuscular junction of the striated muscles and thus results in the chemical denervation and paralysis of the muscles.

Various surgical management procedures in treating parotid fistula and sialocele have been advocated by different authors, such as simple surgical excision of fistulous tract followed by pressure dressing of the wound.

Placing an internal drain created a better connection between the oral cavity and parotid substance



Intra Oral Drain in Position

that helped resolve the situation. After placing the drain, there was no pooling of saliva in the glandular substance. This has allowed fast healing of the gland and subsequent formation of the structures necessary for drainage, through the main Stensen's duct. A slender, thin, plastic drain saves the need of complex requirements.

In the region posterior to the masseter, proximal duct ligation has caused 'physiologic death' of the gland. Duct ligation may lead to early edema of the gland, with accompanying pain from the stretching of the capsule.

Usually, this subsides spontaneously within 1-2 weeks due to the atrophy of the gland, but chronic infection of the remaining glandular substance may be a subsequent complication. Overlying the masseter, a parotid duct injury can be treated by reapproximation of the proximal and distal ends, with a single layer of interrupted fine suture 8.0–10.0 nylon using surgical microscope.

Interposition vein grafting is also used to repair Stensen's duct. In the region anterior to the masseter, the proximal portion of the duct is dissected free and reimplanted into the papilla. And then, cannulation of the duct with silastic tube is sewn to the oral mucosa, opposite to the second maxillary molar region, with a chromic suture, which is held for 2-3 weeks till the duct heals.

Sialodochoplasty using buccal-mucosa pedicle flap is described by creating intraoral fistula for internalization of the salivary flow.

Parotidectomy has been discouraged as a treatment modality as postoperative facial palsy is seen in 75% of cases.

Tympanic neurectomy appears to be a satisfactory method of dealing with selected parotid duct and glandular fistulas. Transtympanic sectioning of the Jacobson's nerve by drilling into temporal bone at hypotympanum has been also reported. Glandular atrophy occurs in 6 months and the high failure rate is due to the varied anatomy of nerve reinnervation.

Conclusion

This is an effective method to manage sialocele, which is both economical and less morbid. To avoid the possibility of inadvertent injuries to the parotid gland, a careful surgical pre-planning and closure with watertight sutures in layers are recommended.

Exquisite Moments To Be Cherished

TiECON KERALA Award for the Best Emerging Entrepreneur of the year 2017 was presented to Mr. John Kuriakose, the Managing Director of DentCare Dental Lab Pvt. Ltd. in Kerala's Largest Entrepreneurs' Convention, on 10 November 2017 at Kochi.

The TiECON KERALA 2017 Award Winners

Ms. Lekha Balachandran (Women Entrepreneur of the year 2017), **Dr. Azad Moopen** (Entrepreneur of the year 2017), **Mr. John Kuriakose** (Emerging Entrepreneur of the year 2017) and **Mr. Sandith Thandassery** (Startup Entrepreneur of the year 2017) flanked by Mr. MSA Kumar, Mr. Shyam Srinivasan, Mr. G.Vijayaraghavan, Mr. Rajesh Nair, Mr. Shivadas B. Menon, Mr. Subroto Bagchi, Mr. Ambareesh Murty and Mr. Ajith Moopan.

ACQUIRED IMMUNE DEFICIENCY SYNDROME

The World Acquired Immune Deficiency Syndrome (AIDS) day is being observed globally every year on 1 December, to raise public awareness about AIDS.

The World Aids Day was first visualized by Thomas Netter and James Burn who were the public information officers for AIDS Global Program at the World Health Organization (WHO).

The Joint United Nations Program on Human Immunodeficiency Virus (HIV)/ Acquired Immune Deficiency Syndrome (UNAIDS) started organizing world AIDS Day Campaign by celebrating with annual themes every year.

The theme of the year 1988 for the World AIDS Day Campaign was 'Communication.' The theme from the year 2011 to 2015 was 'Getting to Zero: Zero new HIV Infection, Zero discrimination and Zero AIDS related deaths.'

To complement the global World AIDS Day 2017 campaign which promotes the theme "Right to health", the World Health Organization will highlight the need for all 36.7 million people living with HIV and those who are vulnerable and affected by the epidemic, to reach the goal of universal health coverage.

Let us know in brief about this global health pandemic.

What is AIDS?

AIDS is caused by a virus called Human Immunodeficiency Virus (HIV) which attacks the immune system of our body. This disease was first recognized in 1981. The virus is found in the body fluids like semen, blood, vaginal fluids

Dr. (Maj.) Nalini Janardhanan
Specialist in Family Medicine
Hadapsar, Maharashtra, India

and breast milk of the infected person. It can be transmitted to others through direct contact.

AIDS is the most advanced stage of HIV infection, when the immune system can no longer fight off infections. As a result, cancers and other infections may easily attack the body. AIDS is life-threatening; but if HIV infection is detected and treated early, it may not lead to AIDS.

Signs and Symptoms

Initially / during the 'window period', there may not be much symptoms or there may be symptoms like those of influenza, such as fever, chills, sore throat, night sweats, enlarged glands, tiredness, joint pain, muscle ache, weakness, red rashes etc.

But in the later stages, the person becomes ill with AIDS and other infections, as the immune system becomes weak and unable to protect the body from pathogens.

The symptoms in later stages include blurred vision, permanent tiredness, high fever, night sweats, persistent and long-standing diarrhea, dry cough, white spots on the tongue and mouth, swollen lymph modes, weight loss, shortness of breath and heartburn (due to inflammation of esophagus).

In the later stages of AIDS, various types of cancers can develop like Kaposi sarcoma, lymphoma and cancers of cervix, lungs, rectum, liver, head and neck. Besides, Meningitis, Encephalitis, Toxoplasmosis Tuberculosis and pneumonia may also develop.

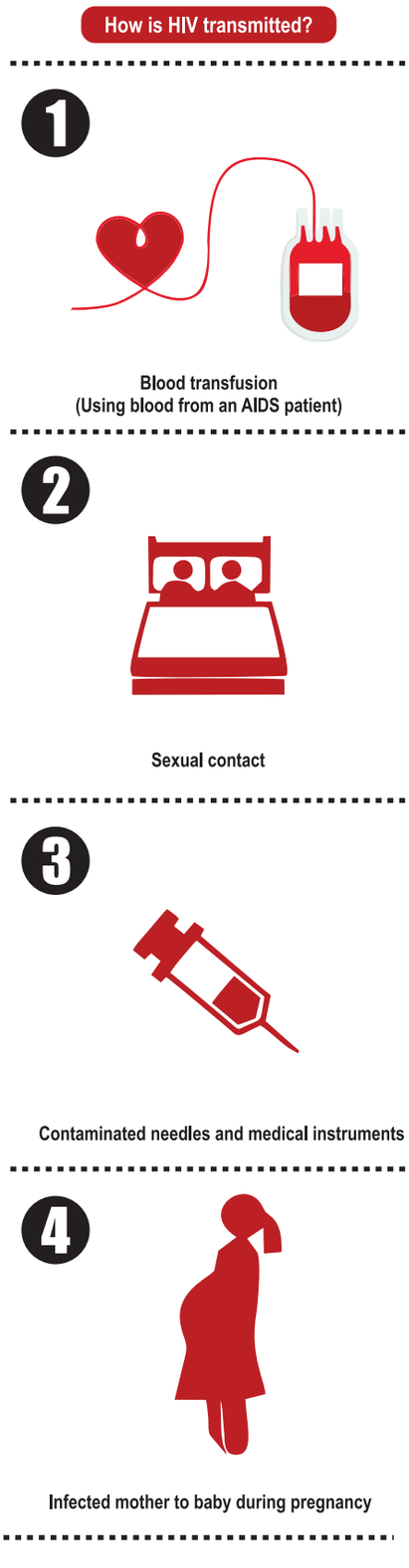
What is Antiretroviral Therapy?

Antiretroviral Therapy (ART) is the treatment of people infected with HIV using drugs called antiretrovirals.

Monotherapy / treatment with one antiretroviral drug (ARV) is used to reduce the risk of HIV transmission through needle stick injury or from mother to child.

Combination therapy (treatment with two or more different ARVs) is used to treat people with HIV.

“The symptoms in later stages include blurred vision, permanent tiredness, high fever, night sweats, persistent and long-standing diarrhea, dry cough, white spots on the tongue and mouth, swollen lymph modes, weight loss, shortness of breath and heartburn”



How is HIV transmitted?

HIV can be transmitted through:

- Blood transfusion (using blood from an AIDS patient).
- Sexual contact (oral, anal or vaginal sex).
- Sex with sex workers (prostitutes).
- Sex with any man or woman having multiple sexual partners.
- Sharing needles to inject drugs (persons who abuse narcotic drugs).
- Infected mother to baby during pregnancy, child birth or breastfeeding.
- HIV can enter the body when sharp tools used to cut / penetrate the skin (e.g. tattooing, ear-piercing) are not cleansed or sterilized.
- Contaminated needles and medical instruments.

How is HIV not transmitted?

Remember that HIV is not transmitted through:

- Normal social contacts (touching, shaking hands, talking, hugging or closed mouth kissing).
- Air or water.
- Sharing clothes, combs, sheets or towels.
- Sharing food or drinks.
- Sharing utensils used for eating or drinking.
- Saliva, sweat or tears.
- Insects, mosquitoes, bed bugs or pet animals.
- Coughing or sneezing.
- Sharing toilets, wash basins, bathtubs or swimming pools.
- Working in the office or travelling in the vehicle along with an infected person.
- Playing or swimming with an infected person.

How to protect yourself?

- Avoid the abuse of narcotic drugs.
- Insist on using sterilized instruments for tattooing or body piercing.
- During blood transfusion, insist on having blood which is tested negative for HIV.
- Do not share your razor blades and needles with unknown persons.
- Get tested at least once in a while or more often, if you are at risk.
- Get tested for sexually transmitted diseases and if positive, go for treatment forthwith.
- If you are at very high risk for HIV or if you think you have been exposed to HIV, consult a doctor immediately.
- Have sex with only one partner for life and be loyal to him or her.
- Use condoms, even if another form of birth control is used.
- Avoid sexual contact with sex workers.

The risk of Transmission from Mother-to-Child can be reduced by:

- Minimizing unprotected sex even when trying to become pregnant.
- Having protected sex during and after pregnancy.
- Stop breastfeeding.
- Get treated if the pregnant woman is HIV positive.
- Giving medications to prevent mother-to-child transmission of HIV.

Indian Dental Association
Kerala State

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50TH IDA KERALA STATE DENTAL CONFERENCE

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DENTAL IMPLANTS

Third Generation of Teeth

A dental implant is an artificial tooth root (made of Titanium) that is surgically placed into the jawbone, beneath the gingival line, to hold a replacement tooth or bridge.

A dental implant allows the dentist to place replacement tooth or bridge, without any visible difference. In addition to this, a dental implant is immune to decay and is relatively free from developing gum disease.

Dental implants have revolutionized dentistry, over the last two decades. This system promotes general oral health because implants are not anchored to the adjacent teeth, unlike bridges.

What are Dental Implants?

A dental or endosseous implant is actually a root replacement anchored to the jawbone, which was formerly occupied by a tooth or teeth.

Dental implants actually fuse or integrate with the bone and this process is referred to as Osseointegration.

How does a Dental Implant Work?

Implants provide stable support for artificial teeth, dentures and bridges. Implants have a secure fit and feel more natural than the conventional tooth replacements, such as bridges and dentures.

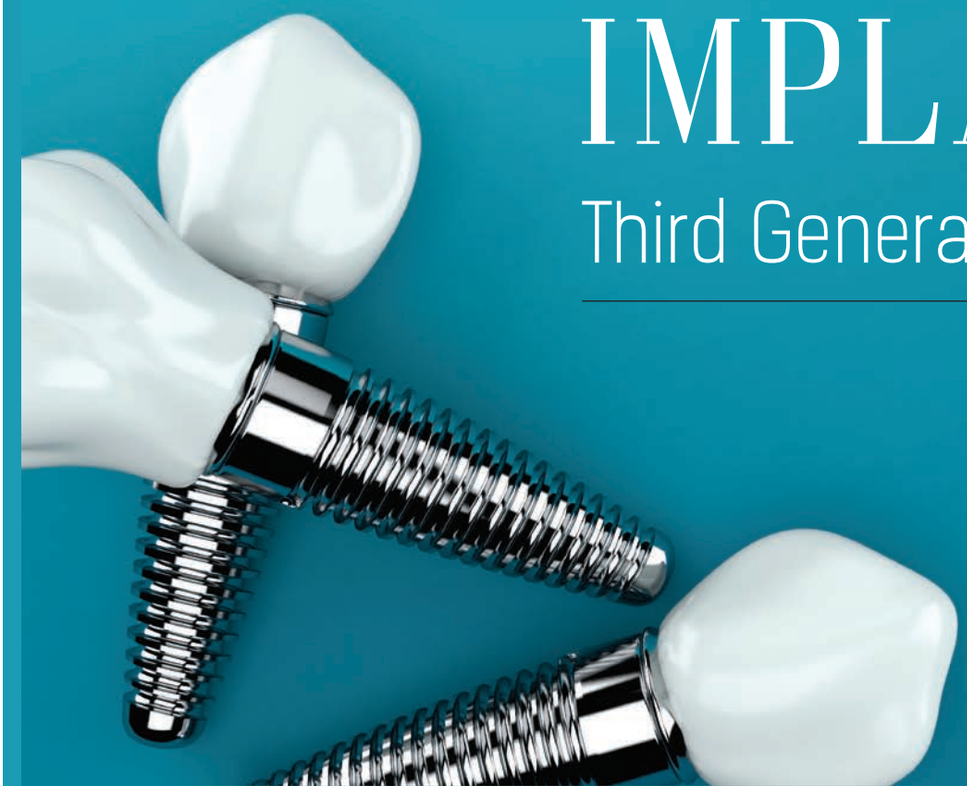
An advantage of implants is that no adjacent teeth need to be prepared or ground down, to hold your new replacement tooth or teeth in place.

The basic prerequisite for an implant is that the patient should have healthy gums and adequate bone support.

Meticulous oral hygiene and regular dental visits are critical for long-term success of dental implants.

Implant Treatment Procedure

Implant placement requires meticulous planning and involves collaborative efforts among the implant surgeon, dentist and laboratory technician, who are responsible for placing a crown



Dr. Alka Adyalkar
Consultant Implantologist,
General and Cosmetic Dentist
Dubai, United Arab Emirates

on the successfully integrated implant.

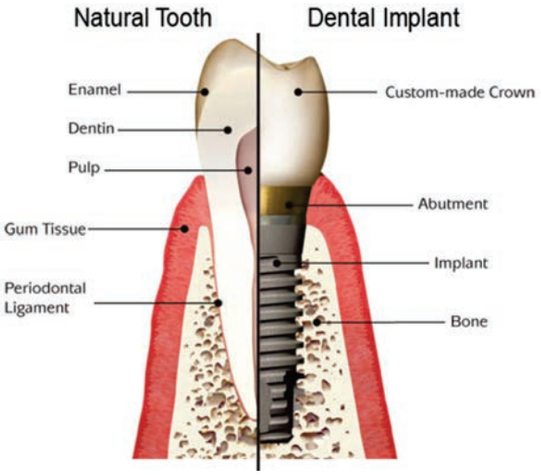
Diagnostic Steps:

The dentist should follow routine procedures to assess the medical status and general health, before examining a patient's mouth, especially the site where the implant or implants are to be placed.

Documentation of each case with all possible preoperative records like Photographs, Study models, Special radiographs - X-ray, Orthopantomogram (OPG) and Cone beam computed tomography (CBCT) - of the site is necessary for assessing the quantity and quality of the bone. This will be followed by surgical guides or templates, to ensure that the implants are accurately placed.

Implant Positioning:

Implant placement is prosthetically driven; the basic idea is to establish the exact position of an underlying implant within the confines of opposing dentition. The implant position can be predetermined with the help of specialized radiographs, imaging technology and study models.



This systematic procedure assures success and helps avoid injuries to vital structures, such as the nerves and sinus.

Fabrication of surgical guides will be of great help to the surgeon in placing the implant precisely.

Surgical Placement:

Dental implant surgery is relatively a comfortable and minimally invasive procedure. In certain cases, depending on the anatomy and morphology of surgical site, extensive procedures, such as sinus lifting, ridge augmentation and complete site reconstruction with bone as well as soft tissue grafting, may become necessary.

In most cases, it is necessary to wait 2-6 months for an implant to perfectly osseointegrate with the bone. The healing time depends upon the density of the bone; if the bone is denser, the integration will be quicker.

After successful integration, the crown is fabricated, which simulates the patient's normal tooth, both in form and function.

Criteria to define treatment success in Implant Dentistry

To ensure successful osseointegration (to the bone), a dentist should evaluate the implant at intervals, considering the following characteristics:

- Clinically immobile.
- No radiographic evidence of any peri implant radiolucency.
- Vertical bone loss of less than 0.2 mm, following the first year of function.
- Absence of the symptoms, such as pain, numbness, infection, maxillary sinusitis or rhinitis

Factors Affecting the Choice of Implants

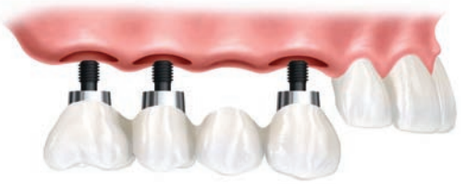
Several variants of dental implants are available, with each having unique features. A dentist should choose the implant meticulously for each case, considering the requirements, such as density of the bone, patient's systemic condition and aesthetic as well as financial factors.

Dental Implant treatment involves a prosthetic procedure preceded by a surgical step. Prosthetic treatment planning is the key to success of a dental implant.

Classification of Implant Restorations:

Single Tooth Replacement:

Use of a single implant and a crown for replacing a



missing tooth without sacrificing the health of neighboring teeth.

Multiple Tooth Replacements:

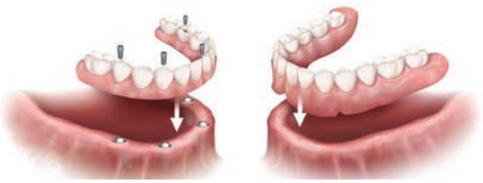
Multiple missing teeth can be replaced with multiple implants supporting fixed bridgework, as small as a 3-unit bridge, supported by two implants or with multiple implants supporting a greater number of teeth.

Usually, a minimum number of 4-8 implants are needed to replace a full arch (jaw) of teeth by fixed bridgework.

Overdentures:

Overdentures are used in such cases where two or more implants, either standard or mini-implants are placed to stabilize the denture and preserve the underlying bone.

Most traditional full dentures press directly on the gum and bone, resulting in bone loss due to resorption, whereas the implant supported overdentures protect the bone.



Overdentures are now considered the standard of care by the American Dental Association, for the patients who have lost all of their teeth in one or both jaws.

Anchorage for Tooth Movement (Orthodontics):

Standard, mini or micro-mini implants are used to provide very stable and non-movable anchor units, to allow quicker and easier tooth movement.

Advantages of Implant Supported Prosthesis

- Bone maintenance.
- Restoration and maintenance of occlusal vertical dimension.
- Maintenance of facial esthetics.
- Improved phonetics.

Implant success rate depends on the careful assessment, diagnosis and understanding of the site where the implant is required and how it relates to the function of the rest of teeth. Once integrated and functional, implant supported crown / complete tooth replacement can last for a lifetime

- Improved occlusion.
- Improved proprioception.
- Improved stability and retention of the removable prosthesis.
- Increased survival time of the prosthesis.
- Eliminate the need to alter adjacent teeth.
- Permanent replacement of more number of teeth.

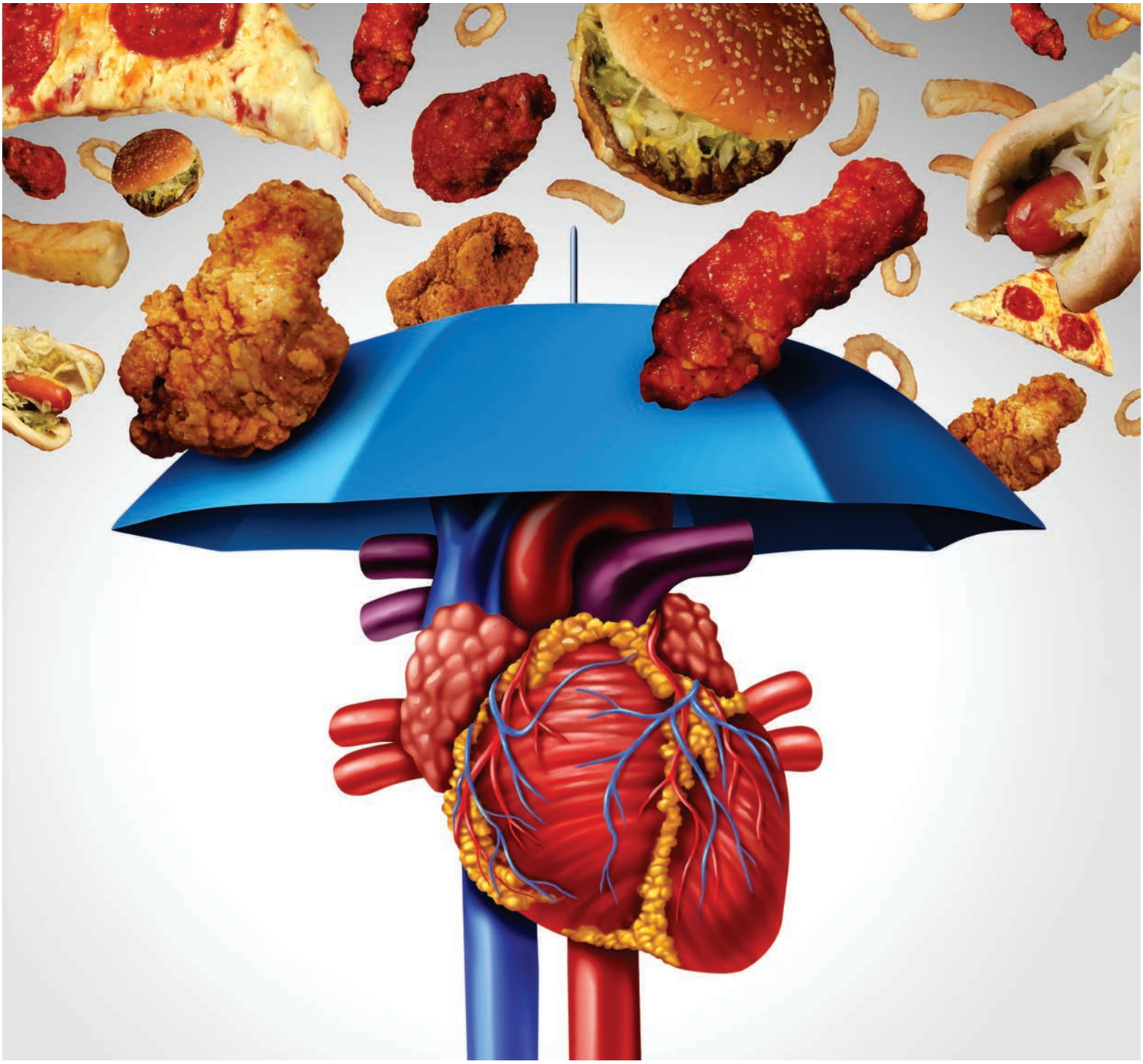
Post Treatment Implant Maintenance

Follow-up visit for a period of six months and annual evaluation of bone level changes around the implant using periapical radiographs are necessary for the successful maintenance of the implant. Besides, the patient should maintain a good oral hygiene.

Implant Success

A collaborative team approach is necessary to correctly assess the situation and plan the right personalized treatment for each patient. Implant sustainability is around 90%, but it may not be the same for everyone or in every case.

Implant success rate depends on the careful assessment, diagnosis and understanding of the site where the implant is required and how it relates to the function of the rest of teeth. Once integrated and functional, implant supported crown / complete tooth replacement can last for a lifetime. DC



LIFESTYLE-OBESITY-HEART DISEASE: The Interconnections

Why do a lot of people suffer from heart disease? How much does our lifestyle contribute to the prevalence of heart disease? These questions are worrying people of late.

There are certain known factors predisposing to heart disease. The percentage of fat in the body of Asiatic people is higher than that of Caucasians. The pattern of fat distribution in them is also different that they are more prone to central obesity. All these

Dr. Paul Jose
Consultant in Laparoscopy
and Bariatric Surgery
Kochi, Kerala, India

contribute to an increase in visceral fat, predisposing them to heart disease.

The more important question is how to prevent heart disease. Though Asiatic people can never change the genetics of heart disease, they can certainly control the factor contributing to heart disease; the lifestyle. This can be done more effectively when the reasons that predispose them to lead a lifestyle, that is detrimental to general and cardiac health is rightly understood.

It is well known that an active lifestyle contributes to overall health. Then, why are Asiatic people reluctant to lead an active lifestyle?

They are living in a competitive world and gain maximum opportunities mainly through academic excellence. The undue emphasis on academic excellence in childhood translates them to an overall apathy towards a physically active lifestyle.

Often, with the clinical manifestation of the side effects, people grudgingly embark on physical activities. In women, this is compounded even further with the social norms that restrict to lead an active life.

Lack of urban planning has resulted in poor infrastructure facilities and scanty space for sports and other physical activities. Besides, the climate is more conducive to remaining indoors and this has often led them to a sedentary lifestyle. All these factors, in one way or another, predispose them to lead a physically inactive lifestyle.

What people eat also has a huge influence on their overall constitution. In general, their average intake of calorie has increased over the years, paving the way for morbidity.

Integrative nutrition education has not been included in the school curriculum so far and this has contributed to the proliferation of misinformation by non-experts. Of late, it has been spread extensively through social media exploiting the gullibility of many people.

So, it is imperative to have a healthy balanced diet from childhood and maintain it through life.

A healthy diet as well as an active lifestyle is the bedrock of good cardiac health. Deficiencies in one or either are the primary cause for increased obesity and related disorders.

Awareness of the different aspects of both these entities is essential. Hence, seek the help of expert, if required. One of the significant impacts of morbid obesity is on cardiac health.

Nowhere is the adage - 'prevention is better than cure'- more apt than in cardiac health.

Lead an active lifestyle, all through life and keep heart disease away. DC

A healthy diet as well as an active lifestyle is the bedrock of good cardiac health. Deficiencies in one or either are the primary cause for increased obesity and related disorders

THE TASTE OF CHRISTMAS

Mr. Noushad is a celebrity chef hosting famous cookery shows Nombuthura and Easy Cook on Kairali TV and Oottupura on Kairali Live. He is also author of the books; Tasty Dishes, Swathishta Vibavam and Easy Cooking.

PINEAPPLE UPSIDE-DOWN CAKE

Ingredients

Maida: 500 grams.

Sugar: 500 grams.

Pineapple juice: 1 cup.

Pineapple essence: 5 tablespoons.

Butter: 500 grams.

Vanilla essence: 5 tablespoons.

Baking powder: 5 tablespoons.

Egg: 10 numbers.

For topping

Icing Sugar: 250 grams.

Butter: 250 grams.

Canned pineapple rings: 25 pieces.

Cherry: 100 grams.

Preparation

- Heat oven to 180 degree. For the topping, beat the butter and sugar until creamy and spread it over the base, up to a quarter of the way or 20-21 centimetre of the round cake tin. Arrange pineapple rings on the top and place cherries in the centre of the rings.
- Place the ingredients in a bowl along with pineapple juice as well as essence. Using an electrical whisk, beat them to a soft consistency. And then, spoon it onto the top of pineapple and smooth it to the brim and bake for 35 minutes. Leave to stand for 5 minutes and then turn it out on to a plate and serve warm with a scoop of ice cream.

Chef Noushad
Author and Entrepreneur
Thiruvalla, Kerala, India

LOBSTER THERMIDOR

Ingredients

Lobster: 2 numbers.

Unsalted Butter: 1/4 cup.

Mushrooms, trimmed and thinly sliced: 1/4 pound.

Kashmiri Chilli powder: 1/2 tablespoon.

Salt: 1/8 tablespoon.

Black Pepper: 1/4 tablespoon.

Cooking Cream: 1 cup.

Egg yolk (Large): 2 numbers.

Preparation

- Plunge the lobster head first into an 8-quart pot of salted water. Loosely cover the pot and cook lobsters over moderately high heat for 8 minutes. Transfer it with tongs to a sink to cool.
- When lobsters are cool enough to handle, twist off the claws and crack them. Remove the meat and halve the lobster lengthwise with kitchen shears, beginning from tail end. Then remove tail meat, reserving the shells and cut the lobster meat into 1/4 inch pieces.
- Heat butter in a 2-quart heavy saucepan over moderate heat until the foam subsides. Cook mushrooms, stirring until the liquid that mushrooms give off is evaporated and they start browning; about 5 minutes.
- Add lobster meat, kashmiri chilli powder, salt and pepper; reduce heat to low and cook, shaking the pan gently for 1 minute.
- Add 1/2 cup of cream and simmer for 5 minutes.
- Whisk together yolks and remaining cream in a bowl, whisking constantly well and transfer it to a small heavy saucepan. Cook the mixture over very low heat whisking constantly, until it is slightly thickened and registers 160 Fahrenheit on an instant-read thermometer, to get the custard and then add it to lobster mixture and serve hot.

DUCK MAPPAS

Ingredients

Duck pieces: 1 kilogram.

Finely minced onion: 1 cup.

Black pepper: 1/4 tablespoon.

Finely minced ginger: 1dipper.

Turmeric powder: 2 tablespoon.

Cinnamon: 2 pieces.

Flower star anise: 1 number.

Coriander powder: 2 tablespoon.

Fennel seeds: 1/2 tablespoon.

Green chilly split: 5 numbers.

Coconut milk (thin): 2 cups.

Coconut milk (thick): 1 cup.

Coconut oil: 1/4 cup.

Ghee: 1 tablespoon.

Shallots: 1 cup.

Curry leaves: 1sprig.

Vinegar: 1 tablespoon.

Salt: to taste.

Preparation

- Grind coriander powder, cinnamon, star anise, fennel, turmeric powder and black pepper in a mixer.
- Heat the pan and pour oil.
- Saute large onion, ginger and green chillies.
- Add the ground spices.
- Add salt to taste.
- Then add duck pieces and cook it well.
- Add vinegar.
- Add thin coconut milk.
- Close the container and cook well for 30 minutes. When the meat is done, add thick coconut milk.
- In another frying pan, saute the minced shallots and curry leaves in ghee, when shallots become brown, add to mappas and serve hot. DC

Infant Feeding

After cesarean section, the baby should be breastfed as soon as the effect of the anesthetic drug subsides from the blood of mother. It is ideal that the baby should be exclusively breastfed till six months of age

Dr. Varghese Cherian
Consultant in Pediatrics and Neonatology
Kochi, Kerala, India

In normal cases, breastfeeding should ideally start soon after the baby is born. After a normal delivery, it is better to make the baby suck the breast milk when the mother is on the delivery table itself, as the baby will usually be very alert immediately after delivery.

After cesarean section, the baby should be breastfed as soon as the effect of the anesthetic drug subsides from the blood of mother. It is ideal that the baby should be exclusively breastfed till six months of age. The production of breast milk usually dwindles after 6 months and hence, it will be no longer sufficient for the baby's growth and development.

To make up for this insufficiency, semi-solids are to be introduced into the baby's diet along with breast milk.

The introduction of semi-solids at 6 months of age also provides the infant a chance for discovering the varying taste of different foods. Taste buds will begin to develop by this period of life.

Introducing homemade food at 6 months is very important, as the child will get used to foods other than milk, at this time. If the introduction of such foods is delayed, the child may be likely to develop reluctance towards accepting them later on.

During this period, the child begins learning the act of chewing, which in turn, will strengthen the gums.

The semi-solids should be introduced into the diet in a slow manner. Babies who are used to only breast milk may tend at first to spit out the new food, as its taste may be strange to them. Since they are used to breast milk only, they probably may not know how to swallow anything other than breast milk.

Start feeding the baby semi-solids with a spoon. Any spoon small enough to go into the baby's mouth may be used for this. Keep aside a separate plate of food for the baby, rather than taking food from others plates. This helps the mother know how much food the baby eats.

Take off the fibrous matter from the vegetables or fruits before feeding babies. Chicken and hot as well as spicy foods should be avoided.

If the baby refuses a certain type of food, try something else for a few days. Babies have their own preferences just like the adults. Some babies may prefer sweets and others a little salty food. Whatever food is given to the baby, make sure it is nutritious.

Ragi, wheat or rice flour cooked with milk may be introduced at 6 months. In the beginning, half a spoon / one spoon is enough. Gradually the quantity and number of feeds may be increased. Seasonal fruits like papaya and mango may also be started soon after.

The market is flooded with pre-cooked cereal preparations, but it is better to provide the growing infant with all the nourishment that it needs from homemade foods. Moreover, the food prepared at home is fresh and gives the infant a chance to taste variety.

A month after the introduction of cereals and fruits, start giving boiled and smashed vegetables as such or mixed with a little milk, tomato or seasonal vegetables, such as green leafy vegetables, carrots, beans, peas etc.

After 9 months, different items of home-cooked foods meant for the family can be gradually introduced. Rice, Chapati, idli, rice or curd may be given. Fruits and vegetables, egg, bread, fish etc. are also good for the baby.

Since the stomach capacity is small, the baby can only take relatively small amount of food, at a time. So, the baby must be fed 5-6 times a day, during this period. At the same time, the baby must be helped to learn chewing.

By one year of age, the infant will take almost half of what an adult takes; about 1000 calories each day, but in small quantities and at frequent intervals.

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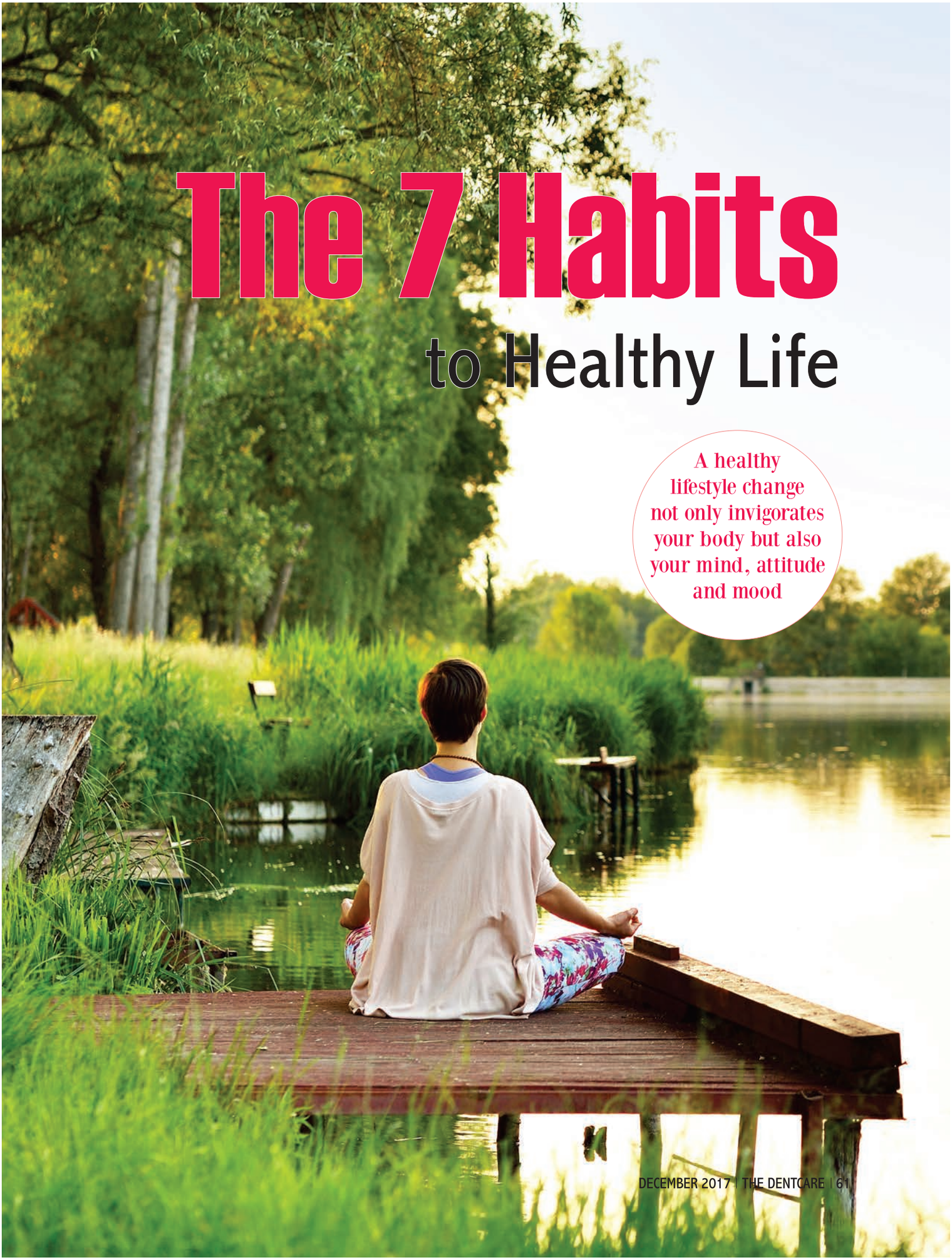

The 7 Habits to Healthy Life

A healthy lifestyle change not only invigorates your body but also your mind, attitude and mood

Dr. Prachi Mehta
Dental Practitioner and Nutritionist
Kachchh, Gujarat, India

Motivation is what gets you started; habit is what keeps you going.

A habit is a routine of behavior that is repeated regularly and tends to occur subconsciously.

Let us take a look and learn how to master the seven habits that help you keep healthy all through life.

1. Healthy Lifestyle

A healthy lifestyle change not only invigorates your body but also your mind, attitude and mood.

Standing up and walking around for at least five minutes every hour at work helps you stay active and healthy. Another lifestyle intervention, that is easy to integrate into everyday life, involves using the stairs instead of the elevators at the workplace and parking vehicles away from the entrance.

Making just a few changes in your lifestyle can help you keep healthy and live longer.

2. Healthy Food

A healthy well-balanced diet maintains good health and keeps your body in optimum condition. Eating small as well as frequent meals and taking dinner early (before 8 p.m.) are recommended; as it enables your body to get enough time to digest the food and burn off the calories.

The most important of all is to have the right balance of vitamins and minerals. Some of them are:

Thiamine (Vitamin B1) needed for improving metabolism - found in legumes, nuts, seeds, etc.

Ascorbic acid (Vitamin C) aids in iron absorption and protects the immune system - found in citrus fruits, vegetables like tomato, potato, lettuce etc.

Cobalamin (Vitamin B12) for making new cells - found in meat, poultry, fish and seafood, eggs, milk and milk products.

Vitamin A - a fat-soluble vitamin - found in fruits like sweet potato, carrot, dark leafy greens, tropical fruits and fish.

Protein is required to help your body repair cells and make new ones. About 30 to 35% of your daily diet should consist of protein found in milk, egg, fish and meat.

Water is vital for life; so it is essential to have approximately 8-9 glasses of water per day.

Avoid junk food and beverages that can sabotage the effort to stay healthy. It is of equal importance to avoid habits like smoking and drinking alcohol which deteriorate various organs of the body and affect your health.

3. Positive Thinking

Positive thinking and optimism are a master stroke to stress management. Positive thinking often starts with self-talk. One can beat a negative situation by keeping a positive attitude.

Meditation is a process which calms your mind and refreshes your thoughts. Start applying 'A Win-Win Approach', a frame of mind and heart constantly seeking mutual benefit.

Emotional bank account is a metaphor for the amount of trust in a relationship; both professional and personal. So, never trust a person who is not worthy.

Practice makes a man perfect; as you practice positive thinking every day, you can deal with stressful situations in a better way.

4. Exercise

The best way to make exercise a habit is to start with an exercise which is easy to perform, even when you are running low on willpower and motivation.

Exercise should not be a punishment; rather it should be a fun time with energetic refreshments. One should walk at least thirty minutes a day, five times a week.

Playing outdoor activities with your child is the best form of exercise, as it creates a strong emotional bond between the two. Aerobic or Cardio exercise can be incorporated.

Resistance Training is another name of exercising your muscles, using an opposing force, which strengthens your

muscles and prevents injuries.

5. Sleep

Getting a good night's sleep is important for a sound, relaxing and rejuvenating process. Every individual should sleep 7-8 hours a day. Sleep is an antidote to daytime stress and worry.

Early to bed and early to rise makes a man healthy, wealthy and wise. If you follow this, it will bring a positive impact on your physical as well as mental health and career.

6. Routine check-ups

A routine check-up is a must for every individual, as it helps find, prevent or reduce the effect of your disease.

Complete blood count, urine test, lipid profile, fasting sugar / post lunch sugar count and blood pressure are the normal check-ups that should be done, every six months.

7. Oral Hygiene

Hygienic environment leads to a disease-free life. Oral hygiene is very important, as God has given us thirty-two pillars, which help in digestion.

Gently brush your teeth twice a day. Use floss and tongue scrapper to enhance your oral hygiene. Avoid smoking and chewing tobacco, as it may lead to oral cancer.

You have the power to significantly impact your health by making healthier choices. Adopting the seven healthy choices can encourage you to become more active and fit, all through your life. DC

Social Media and Gratification

Responsible use of social media is rather an oxymoronic term considering the kind of posts and forwards that one sees today. From fake news to magic cures / fantastic facts, people are bombarded each day with a dizzying amount of false data which they promptly forward and inflate to a geometric progression!

What induces people to forward the stuff? It obviously has to do with gratification and a little bit of neurology behind it, may not be out of place.

The crucial thing is that human beings are hardwired for gratification and researchers have identified the nucleus accumbens as the centre which mediates instant gratification or immediate reward. For delayed gratification, the hippocampus (associated with memory) needs to work with the nucleus accumbens.

Delayed gratification requires a trade-off wherein gratification is deferred for a period of time with the expectation of a larger reward. This is crucial that the delay should result in a larger return otherwise; the subject will not find the delay acceptable.

The size of the reward also matters and people will go for 'instant gratification' mode if the return for delayed gratification is not large enough.

In modern times, people are hardwired for gratification and in a world increasingly driven by social media, the 'like' button or approving emoticons are the new stimuli for the fulfilment of desires.

A qualitative classification of 'posts' put up by common people is done here, as celebrity posts follow an entirely different dynamic.

Generally, people put up two kinds of posts:

1. Original posts

2. Forwards

Original posts can again be subcategorised into:

a. **Creative posts –** they need the most creativity and generally generate the highest number of likes. They include the posts which show original artwork, music, writing, craftwork, cooking etc.

b. **Unique posts –** these are posts which do not showcase creativity but are still unique to the individual posting them; like an

Dr. Sebastian Mathew
Consultant Ophthalmologist
Kuwait

Instagram picture of a meal at a restaurant. It declares, “Hey, it is me and I am eating this! How cool!” Though it may not generate as many likes as a creative post would, it would still be exclusive to the individual.

When you do not have an original post to put up, a forward is the next best thing. There is a definite timeline for a forward which influences the likes that it gets. Here, truly the early bird catches the worm and the initial forwarders would be the ones to get the lion's share of likes.

Creative posts are understandably few and need effort and time to create. They represent delayed gratification. Here, the reward is bigger but the effort required for crafting the post is much bigger too.

Forwards and Unique posts (to a lesser degree) represent instant gratification. All it takes for a forward is a click and then, it is done. And if you are indeed the early worm, the reward is ripe!

An original post is 'authentic' (unless you have stolen somebody's work and posted it; in which case, it becomes sort of another forward) with established credentials. It is your work, photograph, article or recipe carrying with it a certain responsibility and accountability.

Forwards have no such accountability. They are the digital equivalent of words carried by a wind: words spoken by strangers. They become authentic if verified and confirmed; but hardly anyone, who forwards a post, does that.

Lack of accountability and the ease with which a forward can be done create a compulsive need to click on that button; bringing with it instant gratification. Verifying the authenticity of a post before forwarding may not significantly enhance the reward being expected.

If the incentive of a larger return does not exist with the delay in gratification, people go for instant gratification. Why bother with checking veracity, just click it away! One way of limiting this would be to disincentivise instant gratification; for this a strong mindset is imperative. Besides, the users should have accountability. If a person can be held accountable for the authenticity of his posts, even if it is a forward, perhaps people would think twice before doing it.

DENTAL CALENDAR 2017 - 2018

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04 - 05 **Hyderabad, India**	International Conference on Dentistry **India - Novotel**	+ 917 512 3432 www.scientinternational.com
14 - 16 **Addis Ababa, Ethiopia**	International Dental Exhibition Africa **UNECA Congress Centre**	+ 39 06 8893 68 66 + 39 02 7006 12 20 www.idea-africa.com
14 - 17 **Bengaluru, India**	45th Karnataka State and 4th Interstate Dental Conference **S S Convention Centre**	+9448013116 www.45ksdc.com
22 - 24 **New Delhi, India**	Expodent International India **Pragati Maidan**	+ 9599189519 + 9310035871 www.aditidental.co.in

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11 - 13 **Orlando, USA**	ICOI Winter Implant Symposium **World Center Marriott**	+ 1 973 783 6300 + 1 973 783 1175 www.icoi.org
18 - 20 **Denver, USA**	Rocky Mountain Dental Convention **Colorado Convention Center**	+1 303 488 9700 www.rmdconline.com
24 - 27 **Cairo, Egypt**	2nd African Congress of Dentistry and Implantology **Hotel InterContinental Cairo Citystars**	+ 212 524 430 984 www.acdi2018.com
26 - 28 **Kochi, India**	50th Kerala State Dental Conference **Bolgatty Palace**	+ 9447020417 + 9567080417 www. idakochi.org
26 - 28 **Kuala Lumpur, Malaysia**	25th MDA Scientific Convention and Trade Exhibition **Putra World Trade Centre**	+ 603 78876760 + 603 78876764 www.mda.org.my

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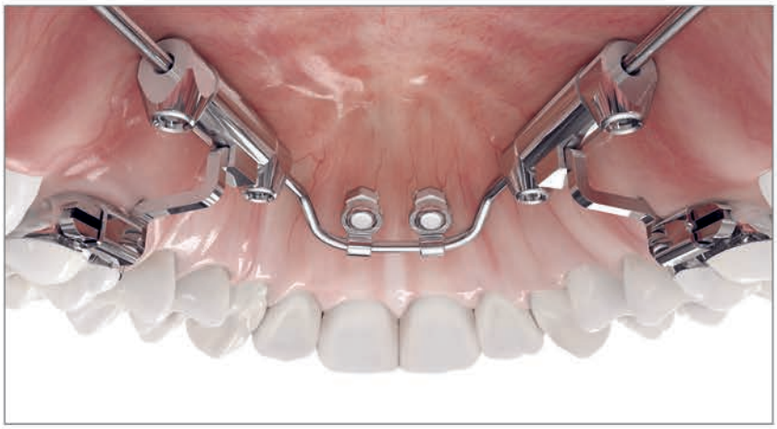

Pleasant emotion.

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- Easy to fit / Easy to remove
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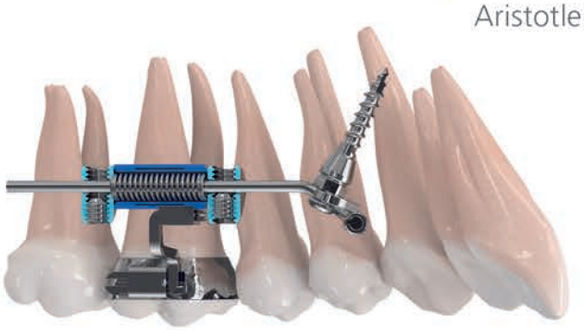
- In situ – 24 hours
- Invented by Prof. Dr. Moschos A. Papadopoulos, Aristotle University, Thessaloniki, Greece



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