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# THE DENTCARE

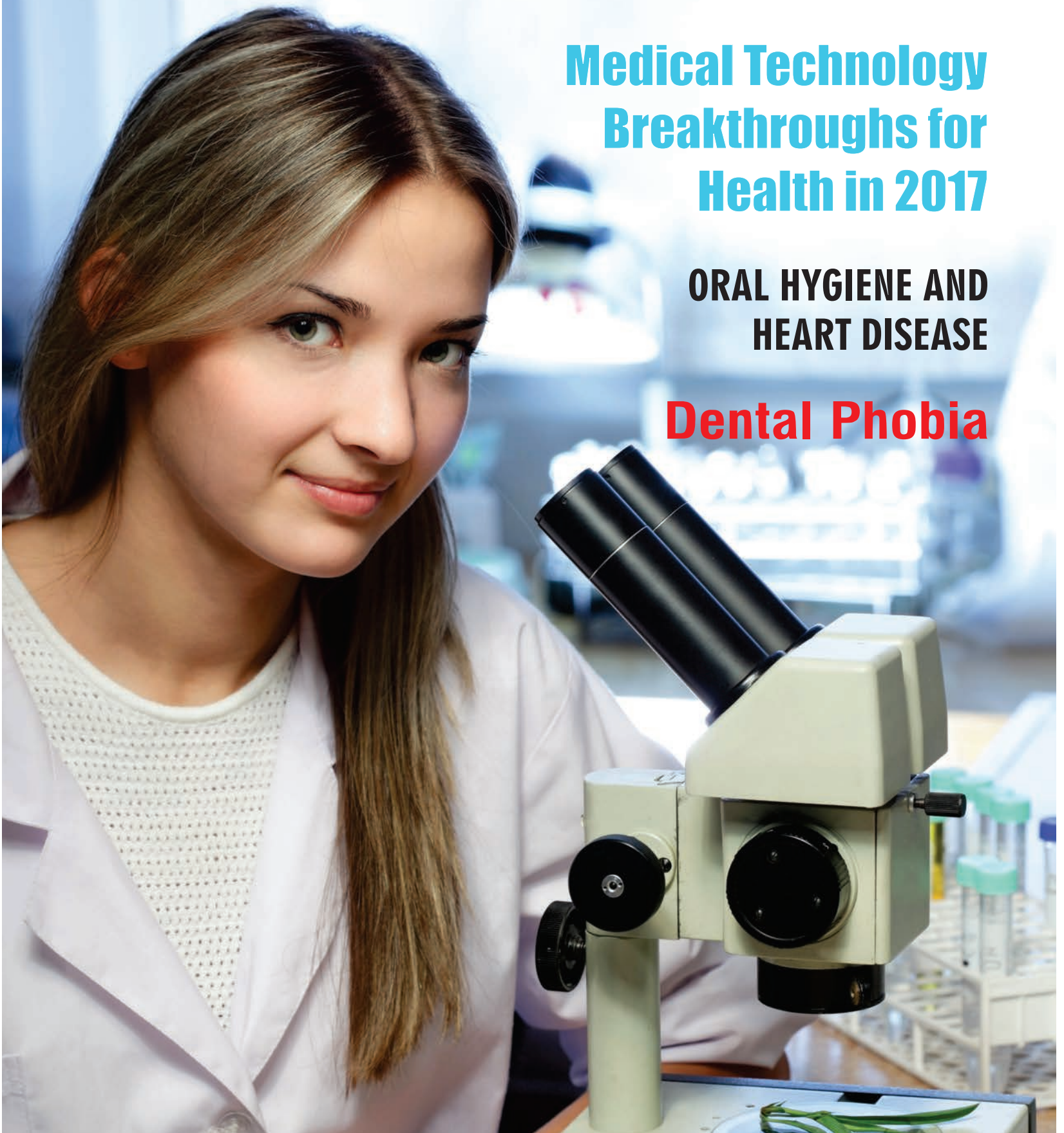
Your Monthly Health Care Magazine

*Brightening smile the world over*

## Medical Technology Breakthroughs for Health in 2017

**ORAL HYGIENE AND  
HEART DISEASE**

**Dental Phobia**





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Feb is Fab!! **Dear Reader,**

Without doubt, your good health is what matters most to us.

Served here is a platter of pages on the magic of Fruit for your healthy appetite. There is added insight for your inquisitive thought on what breakthroughs 2017 would have in store for your lasting health as well.

Oral hygiene cannot be far behind. You realise how important it is. Surely you would not want to make heart disease an end result of your negligence?? Babies too, need careful attention to their pearly whites. I am certain you would agree.

Reasons for me to feel delighted...

As I type in these lines, I do realise that my computer screen is definitely not the friend in need for my precious eyes!! They deserve careful attention from the daily abuse we subject them to given our addiction for any form of electronic visual display!!!

Cancer is everywhere today. The human race has been taken by stranglehold. We have only ourselves to blame. But not without reason for hope—find out how in The DentCare we CAN?

Even as our children evolve under the influence of today's tech savvy environment, newer modalities have gained ground in managing them behaviourally. Reassuring words, I hope.

The fear of the fast approaching exams is a perpetual “butterfly in the tummy” for our dear children. Read on to know more on the win-win formula we have for you in this edition.

Beauty, they say is only skin deep. But today, Plastic Surgery could provide you with age defying solutions – and that is a thought you should probably approach with measured caution.

UPI is perhaps the future for all of us, thanks to the process of demonetisation and rightly so. Do give it a fighting chance. India deserves it.

Did I not begin by saying Fab in Feb??

Yours truly,

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

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## Medical Technology Breakthroughs for Health in 2017

Some of the newest breakthroughs in the field of medical technology will improve your life; some will change your life while there are some breakthroughs that will save your life. By the end of 2017, the face of medicine will have changed.

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A still life composition featuring a variety of fruits and autumn leaves arranged on a rustic wooden surface. The fruits include several apples in shades of yellow, orange, and red, a bunch of green grapes, and clusters of small red berries. Interspersed among the fruit are several large, vibrant autumn leaves in shades of orange, red, and yellow. The lighting is warm, highlighting the textures of the fruit and the grain of the wood.

# Magical Potion of Fruits in *Daily Life*

*Fruits help you to stay away from health complications like heat stroke, high blood pressure, cancer, heart ailments and diabetes. Fruits effectively fight skin disorders and promote healthy hair growth. It is always suggested to eat raw, fresh and ripe fruits because then you experience the real health benefits, rather than consuming them after processing or cooking.*



*Fruits are an important part of a healthy diet for those who want to lose weight; they give ample energy and nearly every nutrient that your body needs to curb weight gain, without adding any unnecessary fats*



**F**ruits benefit your body immensely as they are natural sources of vitamins and minerals, which are essential for the proper functioning of the body. The health benefits of fruits guarantee you optimum health and a well-built body in the long run.

Rich in dietary fiber, fruits also help to improve the functioning of the digestive tract. Fruits are an important part of a healthy diet for those who want to lose weight; they give ample energy and nearly every nutrient that your body needs to curb weight gain, without adding unnecessary fats.

Moreover, fruits help you to stay away from health complications like heart stroke, high blood pressure, cancer, heart ailments and diabetes. Fruits effectively fight skin disorders and promote healthy hair growth. It is always suggested to eat raw, fresh and ripe fruits because then you experience the real

health benefits, rather than consuming them after processing or cooking.

#### **How do fruits benefit us?**

The human body is an intricate system and hundreds of complex reactions take place in it all the time. For smooth functioning of the body, we need an adequate amount of nutrients that are supplied by fruits in a natural way.

When we become ill or develop any health disorders, these can be avoided or treated with a healthy diet rich in fruits. With a busy lifestyle, our eating habits have become packed with preservatives and processed foods that are not only devoid of essential nutrients but can also cause some harm to the body.

Fruits boost your immune system and keep us in perfect health. Eating fruits and vegetables may promote

emotional well-being among healthy young adults. Research suggests that good moods may lead to a greater preference for healthy foods over indulgent foods.

#### **Instant energy supplier**

When we eat fruits, the supply of energy increases in no time; this is one of the prime benefits of fruits that we can utilize in our busy schedules. This is the reason why athletes often eat fruit during and after exercising and why diets for pregnant mothers almost always involve fruits of some kind.

#### **Prevention is better than treating**

Nowadays, drug stores have many types of multivitamin tablets that can give supplemental nutrition during critical times. However, it is always advisable to eat the vitamins of fruits in their natural form so that all of the



benefits are conferred to us.

As is always said, the benefits of fruits can never be out-matched or replaced. Over a 10-20 year time frame, eating fruits regularly can completely change your life and make a great deal of difference to the health and functioning of your body.

### **Keeps you disease free**

The combination of powerful flavonoids, antioxidants, minerals, vitamins, phytochemicals and the countless micro and macronutrients make fruits very advantageous for your health. The daily consumption of fresh fruits lowers the risk of strokes, high

blood pressure, indigestion, cancer, heart disease, diabetes and other chronic diseases.

Fruits keep your skin supple, hydrated and nourish it with essential vitamins, minerals and antioxidants, thereby retaining a radiant skin for a long period of time. In fact, if you are tired of using the commercial anti-pimple creams, just try including fruits like berries, apples, or bananas into the daily diet and see the acne disappear quite quickly.

Fruits even ensure healthy hair growth and keep your locks lustrous and soft. Some fruits like bananas contain vital chemicals such as

potassium, which helps to prevent strokes, high blood pressure and anxiety. Fruit consumption basically eliminates vitamin and mineral deficiencies and their associated symptoms. Fruits also have high quantities of water and fiber in them, which helps to keep your digestive tract clean and your weight under control.

### **Goodness of fibrous fruits**

Fibrous fruits aid the digestion process in the body. The fruit skins are rich in dietary fiber, which is a major contributing factor in proper digestion and the excretion process of the body, while simultaneously keeping us safe from problems like gastritis and constipation. However, in some cases, the skin is thick, like in lemons, bananas, melons and oranges, and cannot be consumed by humans. In those cases, the edible part or the flesh within the skin has plenty of fiber as well.





The fiber content in fruit not only has a brilliant laxative effect but also makes you feel full by adding bulk nutrition to the diet. Fibrous fruits also benefit conditions like heart diseases by reducing hyperlipidemia and hypertension, diabetes mellitus and obesity. Owing to this fibrous composition, fruits also have anti-carcinogenic properties and are known to prevent colon cancer and fight bowel irregularity disorders.

### **Fruits as storehouses for nutrients**

Almost all fruits have immense nutritional value, but obviously the kind and quantity of nutrients vary between types. As the composition changes with each fruit, the health benefits also change with them.

### **The beneficial powers of common fruits are:**

#### **Bananas**

**Bananas** are among the most widely consumed fruits on the planet according to the U.S. Department of Agriculture. It is an American's favorite fresh fruit and an Indian's Pride. The curvy yellow fruits are high in potassium and pectin, a form of fiber. They can also be a good way to get magnesium and vitamins C and B6.

Bananas are high in antioxidants, with rich supply of free radicals, which we come into contact with every day, from the sunlight to the lotion you put on your skin. Bananas are known to reduce swelling, protect against developing type-2 diabetes, aid in weight loss, strengthen the nervous system and help

in production of white blood cells, all due to the high level of vitamin B6 that bananas contain.

#### **Mangoes and Papayas**

Mangoes and Papayas are rich in beta carotene. Papayas act as powerful antioxidants with an abundance of vitamin C, vitamin E, vitamin D and vitamin A that all aid in the oxidation of LDL cholesterol. This prevents the formation of dangerous plaque that can result in atherosclerosis, heart attacks or strokes. Good amounts of vitamin C can be sourced from papayas, oranges, guavas and Indian gooseberries.

#### **Apples**

A good example of a complete healthy fruit is the apple; it helps in digestion, strengthens bones, provides relief from asthma, lowers blood cholesterol, prevents cancer and helps in reducing weight.

#### **Pears**

Another beneficial fruit is the Pear, which is a good source of fiber, vitamin C, vitamin B2, vitamin E, copper and potassium. Pears are an excellent source of pectin and fiber that effectively lowers cholesterol levels. It is mostly prescribed for infants as it is believed to be a hypo-allergenic fruit that is completely safe for young children to ingest.







### Grapes

Grapes are also a common fruit that can be easily included in your regular diet. Grapes alleviate indigestion, constipation, fatigue, kidney disorders and eye problems. It is rich in several vitamins and also possesses minerals like calcium, potassium, iron, magnesium, phosphorus and selenium.

### Berries

Blueberries, cherries and blackberries prevent cancer and keep your heart protected. If you include cherries or cherry juice in your diet, you can eliminate the associated pain from arthritis, gout and joint inflammation.

Berries have the capability of curing arthritis naturally. Blue berries with high silicon content aid in the functioning of the pancreas and is good for diabetic conditions. Blackberries can naturally control diarrhea and form new blood cells, but it can also have the adverse reaction of promoting constipation. High sodium and potassium content in gooseberries and huckleberries protect the liver and the intestinal tract.



### Tomatoes

You might be surprised to know that tomatoes are actually fruits and not vegetables, although we typically consider it as one of the latter. Tomatoes have high vitamin content and they are an excellent blood cleanser.

### Citrus fruits

Fruits rich in vitamin-C like oranges, limes, lemons and grapefruits are excellent for your overall health. Oranges are consumed widely for healthy skin, teeth, gums and to keep the lymphatic system healthy. Lemon, the bitter yellow fruit, has been used for vision issues for thousands of years and it also treats disorders ranging from common colds to epilepsy. Lemon juice helps people lose weight as well. Grape fruit lowers cholesterol and has antioxidant properties. Limes help prevent disorders like scurvy, piles and gout, as well as respiratory and urinary disorders.



### Dry fruits

Dry fruits like figs, dates, apricots and raisins are extremely beneficial for your health. Apart from being excellent laxatives, apricots are a great natural remedy for anemic conditions. Figs include potassium, the essential mineral that helps in controlling blood pressure. Raisins effectively treat anemia, acidosis, fever and sexual weakness. It helps to gain weight, promotes eye, teeth and bone health. Dates have abundant fiber that helps to prevent constipation.

### Do fruits help to lose weight?

Once we start including a significant amount of fruit in your normal diet, we will begin to see that your weight is being controlled and your health is improving. However, fruits alone cannot reduce your weight. You also need to exercise regularly.

Many surveys done in America and across the globe has showed effective weight reduction after fruits were included in the family's diet. A person who habitually eats fruits will be less inclined to have snacks and junk foods between meals that hardly have any nutritional value. Also, fruits are composed of 90-95% water; therefore it has a powerful diuretic effect on your body,

thereby flushing out the nitrogenous wastes and unwanted toxins from the body.

One example of this is Lychee, a fruit that is a great laxative with a negligible amount of calories, and no saturated fats or cholesterol. It also helps to cut down excess body weight. Except for a few fruits like coconuts, avocados and olives, fruits are usually fat-free.

### Conclusion

Fruits, fresh or dried have been a natural staple diet of human beings since ancient times. Replete with minerals, vitamins and enzymes, they are easily digestible. Fruits are not only good sources of food, they also serve as medicines and can treat ailments. The rich and varied traditional knowledge and the practice of naturo-therapy gives us the added privilege of preventing diseases rather than curing it. The active principles present in vegetables, fruits, spices and other condiments are helpful in protecting our body against diseases and disorders, *making it more functional and a real magical potion for human lives.*



# Medical Technology

## Breakthroughs for Health in 2017





*T*he more technological our world becomes, the more options we have when it comes to our health. Many of these breakthroughs we have today were not available ten to five or even two years ago. Scientists, researchers, and doctors are working every day to find new ways to treat different diseases and conditions.

As soon as the treatments and cures that they come up with are approved by the Food and Drug Administration (FDA), they become available to the public. Some of the newest breakthroughs will improve your life; some will change your life while there are some breakthroughs that will save your life. By the end of 2017, the face of medicine will have changed.



### The Mini Pacemaker

If you have an electrical glitch in your heart, it can be fatal. Many people who have this type of heart problem are fit with a pacemaker. While they are effective, placing them is a very invasive procedure. Also, the wires that connect the pacemaker to your heart can become infected, causing serious complications.

There is a mini pacemaker that is still in the clinical trial process. However, it should be approved by the FDA by early 2017. This pacemaker does not require wires. Therefore, there is no chance of infection. The procedure of implanting the pacemaker is non-invasive and there is no surgery required. It would get implanted into your heart by pushing the implant through the femoral vein using a catheter. This tiny device can change the face of medicine.



### The Jawbone UP2 Activity Tracker

Over the next year, it is estimated that there will be 5 million people wearing this activity bracelet.



Within the next 5 years, there will be 13 million people wearing this bracelet. It is an activity bracelet that tracks your activity, sleep habits and a variety of other health information. The reason that so many people will be wearing this bracelet is that their health care provider will offer discounts on their premiums for the data.

These discounts can save you thousands of dollars. If your insurance company offers you this deal, you should accept it.

### High LDL Cholesterol will be a thing of the Past

If you go to the doctor and each time you find out that your bad cholesterol, or LDL, is high, you may not need to worry much longer. By 2017, the FDA

is expected to approve two drugs called PCSK9 inhibitors. They have been proved to silence a cholesterol creating gene called PCSK9. The patients who have been involved in the study so far have had LDL levels that dropped by 50 percent. These medications can greatly reduce your risk of heart disease and heart attacks.

### No More Swallowing Pills

There are many people who need to take medications every day, who hate swallowing it. By the end of 2017, this should be a thing of the past. In August 2016, the FDA approved a new type of pill that is 3-D printed and it dissolves into liquid the second the liquid goes into your mouth. Before you even have a chance to swallow the pill, it will already have turned into liquid. The first drug approved for this method was an epilepsy drug called Spirtiam and by the end of 2017, hundreds of other drugs should be approved too.

### The Bionic Eye

Age-related macular degeneration is a common cause of blindness in adults. Unfortunately, there is no cure for this condition. Earlier this year, an octogenarian from Britain came up with a device that will allow you to see if you lose your sight to this disease. It is called the Argus II, and it takes video images that are caught on a special pair of glasses and it converts them into electrical pulses. These pulses are sent to electrodes that are transmitted wirelessly.

When the pulses reach the brain, they are registered as shapes, light and dark. This technology is now available in 18 cities in the United States and by the end of 2017, it should be available across the United States.



But 2017 will not be just about robots and artificial intelligence. It is likely that some of the less visually spectacular medical technologies will yield the most astonishing medical breakthroughs. Drug research, for instance, is poised to take off in 2017—especially with immunotherapeutic treatments for cancer.





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# DENTAL PHOBIA

We often hear these words from many children and grown-ups alike *"I'm afraid of the dentist because I hate the feeling of someone whom I do not know poking around in my teeth and hurting me."*

The level of fear varies from person to person and some people are afraid of dental injections in particular, while others are phobic about any sort of needle. Some people are phobic to the point of avoiding injections at all costs (including their life).

A "phobia" is traditionally defined as "an irrational severe fear that leads to avoidance of the feared situation, object or activity". Exposure to the feared stimulus provokes an immediate anxiety response, which may take the form of a panic attack. The phobia causes a lot of distress and impacts on other aspects of the individual's life, not just their oral health.

Dental phobics will spend an awful lot of time thinking about their teeth or dentists or dental situations, or else spend a lot of time trying not to think of teeth or dentists or dental situations. This is pretty hard in today's society, which is saturated with ugly reminders such as toothpaste commercials.

A distinction has been made between dental anxiety, dental fear, and dental phobia.

Dental anxiety is a reaction to an unknown danger. Anxiety is extremely common and most people experience some degree of dental anxiety especially if they are about to have something done which they have never experienced



**Dr. Thomas Manjooran**  
Dean  
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before. Basically, it is a fear of the unknown. Dental fear is a reaction to a known danger ("I know what the dentist is going to do, been there, done that - I'm scared!!"), which involves a fight-or-flight response when confronted with the threatening stimulus.

Dental phobia is basically the same as fear, only much stronger ("I know what happens when I go to the dentist - there's no way I'm going back if I can help it. I'm so terrified I feel sick"). Also, the fight-or-flight response occurs when just thinking about or being reminded of the threatening situation. Someone with a dental phobia will avoid dental care at all costs until either a physical problem or the psychological burden of the phobia becomes overwhelming.

We should always remember that we are not mind-readers and the most common complaint from dentists regarding phobic patients is that they will not let them know what they are scared of, or when they are feeling scared.

For children crying is considered an important means of releasing physiological tensions. It is also important that we understand the different types of tears so that we know what situation we are facing.

From a biological perspective, three kinds of tears are distinguished. "Basal tears" are continuous and lubricate our eyes; "reflex or infant tears" occur when we chop onions or receive a blow to the eye; "emotional tears" are psychologically caused.

As far as infants are concerned there are also three different types of cries apparent. The first of these three is a basic cry, which is a systematic cry with a pattern of crying and silence. The basic cry starts with a cry coupled with a briefer silence, which is followed by a short high-pitched inspiratory whistle. Then, there is a brief silence followed by another cry. Hunger is a main stimulant of the basic cry.

An anger cry is much like the basic cry; however, in this cry, more excess air is forced through the vocal chords, making it a louder, more abrupt cry. The third cry is the pain cry, which, unlike the other two, has no preliminary moaning. The pain cry is one loud cry, followed by a period of breath holding.

It is important to note that most of us can determine whether an infant's cry signifies anger or pain. Most parents also have a better ability to distinguish their own infant's cries than those of a different child.



Dental fear is a reaction to a known danger ("I know what the dentist is going to do, been there, done that - I'm scared!!"), which involves a fight-or-flight response when confronted with the threatening stimulus.





DentCare teamed up with IDA Central Kerala Kottayam branch in contributing to the 49<sup>th</sup> Kerala State Dental Conference on 20<sup>th</sup>-22<sup>nd</sup> January, 2017 @ the Hotel Windsor Castle, Kottayam, Kerala, India.

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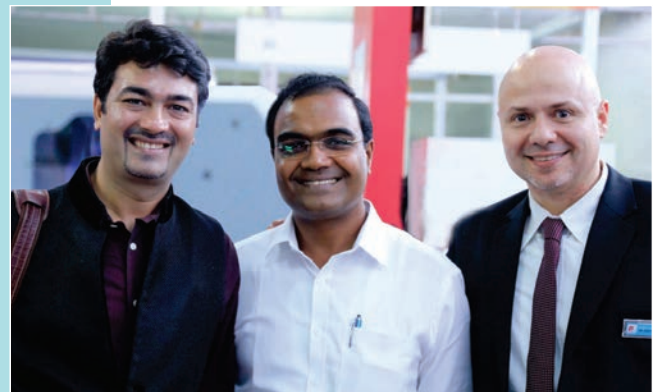
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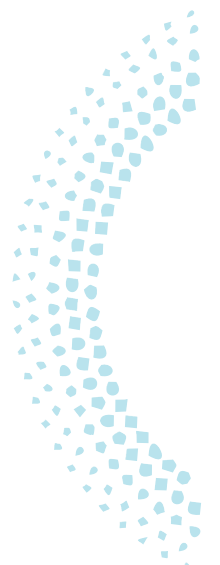






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visiting us

We enjoyed meeting  
everyone @  
KODACKK 2017





# ORAL HYGIENE AND HEART DISEASE

Bacterial endocarditis with aortic root abscess is a fatal condition expect in very few. Poor dental hygiene can also produce coronary artery disease and heart attacks.



**Dr. Theckedath Mathew**  
Senior Interventional Cardiologist  
Rochester Heart Institute  
New York, United States

**I**n April 2012, a 58-year-old farmer was admitted in the emergency room with complaints of chest pain, shortness of breath and diaphoresis. His blood pressure was low at 110/60, pulse rate was low at 50 and he was in distress. It was noted outright that he had very bad oral hygiene with bad breath.

Cardiac examination showed a 4/6 systolic murmur in the aortic area and the chest examination was normal. Electrocardiogram (ECG) showed evolving diaphragmatic myocardial infarction. He was given intravenous (IV) fluids and atropine and was taken to the catheterization laboratory (cath lab) for an angiogram.

Angiogram showed that the right coronary artery was totally occluded and the circumflex artery had a 90% blockage. The remaining arteries were normal. His pumping function of heart was reduced by 50%. Two stents on each of these lesions were placed and the vessels were open. The pain resolved and he felt better.

A bedside echocardiography showed diminished systolic function of the left ventricle, moderate aortic stenosis and mild aortic regurgitation. Over the next two days the patient did very well and he was discharged on the fourth hospital day with appropriate medications.

Among the discharge instructions emphasis was made about good oral hygiene, flossing the teeth and the absolute need to see a dentist. He was cautioned about the possibility of dental infection spreading to the heart with poor oral hygiene.



The patient came for a follow-up visit after three months. He still had bad breath. He had lost one tooth and the remaining teeth were unhealthy, brown in color and had evidence of gingivitis. Again he was cautioned about good dental hygiene. Thereafter, he was lost in follow-up.

Then in October 2015, he was brought to the emergency room with fever, chills and a 20-pound weight loss. He had a blowing diastolic murmur in the aortic area. His blood cultures were positive for *Streptococcus viridians* – a member of the normal flora in the oral cavity. A diagnosis of bacterial endocarditis was made and intravenous fluids and antibiotics started.

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The next day, a trans-esophageal echocardiography showed large vegetation on the aortic valve with severe aortic regurgitation (Trans-esophageal echocardiography is an ultrasound examination of the heart where we look at the heart closely from the esophagus).

In addition, he had a fairly large aortic root abscess. He was treated heavily with antibiotics. His general condition deteriorated. Blood pressure dropped to the 70s. He developed a heart block. A temporary pacemaker was inserted. His condition progressively worsened and he died on the sixth hospital day. He died of septicemia from *Streptococcus viridans* with bacterial endocarditis complicated by vegetations and aortic root abscess.

**In this case the root cause of the problem was poor dental hygiene.** This patient did not brush the teeth and had never seen a dentist.

Normally when we brush the teeth, a few of the normal bacterial flora like *Streptococcus viridans* will invariably get into the blood stream. These bugs are very few and eaten up and destroyed by some of the white blood cells in the blood (phagocytosis).

When there is poor dental hygiene and gingivitis, as in this patient, there is constant entry of the bacteria into the

blood stream. When the bacterial load is heavy, the phagocytosis process is insufficient and blood infection ensues. These bacteria can get stuck in diseased valves in the heart. The bacteria multiply under the endothelium of the heart valve. They grow in size and make vegetations which would swing with the opening and closing of the valve. At this stage, bacterial endocarditis has set in.

However, you do not need a diseased valve to develop bacterial endocarditis. These oral bacteria can affect even normal valves.

In severe cases of bacteremia, the bugs can gain access inside the endothelium on the aortic root producing a root abscess, as was seen in this case. This is an extremely difficult condition to treat with antibiotics and if at all possible, surgery is the answer. Bacterial endocarditis with aortic root abscess is a fatal condition expected in very few. Poor dental hygiene can also result in coronary artery disease and heart attacks.

Our patient had very poor dental hygiene; gingivitis, bacterial endocarditis and aortic root abscess that caused his death, all due to poor dental hygiene.



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# COMPUTERS AND THE EYE




**Dr. Suresh Puthalath**  
Consultant Ophthalmologist  
Puthalath Eye Hospital  
Kozhikode, Kerala, India

**I**n today's world, the computer has become an integral part of human life. However, the initial excitement has given way to a more realistic estimation of the benefits of this modern marvel. People who work long hours in front of a computer screen frequently complaint of eye discomfort. So significant are these complaints that they are now commonly referred to as **computer vision syndrome**.

The **computer screen**, more correctly termed the visual display unit or the video display unit (VDU), is an electronic device linked to a computer by means of a cable. It is similar to a television set in that it comprises an evacuated glass tube, that is, a cathode ray tube which has an electron gun at one end and a phosphor-coated screen at the other end.

The screen is scanned horizontally and vertically by the electron beam at fixed, predetermined rates and the electron's kinetic energy changes into light as the electrons interact with the phosphor on the screen. An image is produced by modulating the number of electrons in the beam.





Computers are now a vital part of our lives; so is the visual strain caused by working on them. With careful planning and re-arrangement of the work atmosphere, proper eyecare and modifications to the VDU, these problems can be reduced to manageable levels.



The VDU is a potential source of radiation in a variety of electromagnetic ranges. However, numerous scientific studies conducted by organizations like the Bureau of Radiological Health, Bell Laboratories and National Institute for Occupational Safety and Health (NIOSH) have measured the levels of various radiation fields around VDUs.

These studies have repeatedly shown that the detectable emissions were all well below dangerous levels that may cause any significant health problems. The electric and magnetic field readings emanating from VDUs were in frequencies that have not been shown to cause biological injury.

### **Eye problems caused by computers**

The main eye complaints of VDU operators are similar to the symptoms produced by performing other near vision tasks. These complaints include irritation, red or teary eyes and feelings of tiredness. There may be associated difficulty in focusing or accommodation (blurriness, difficulty in seeing near or far objects) and discomfort with spectacles.

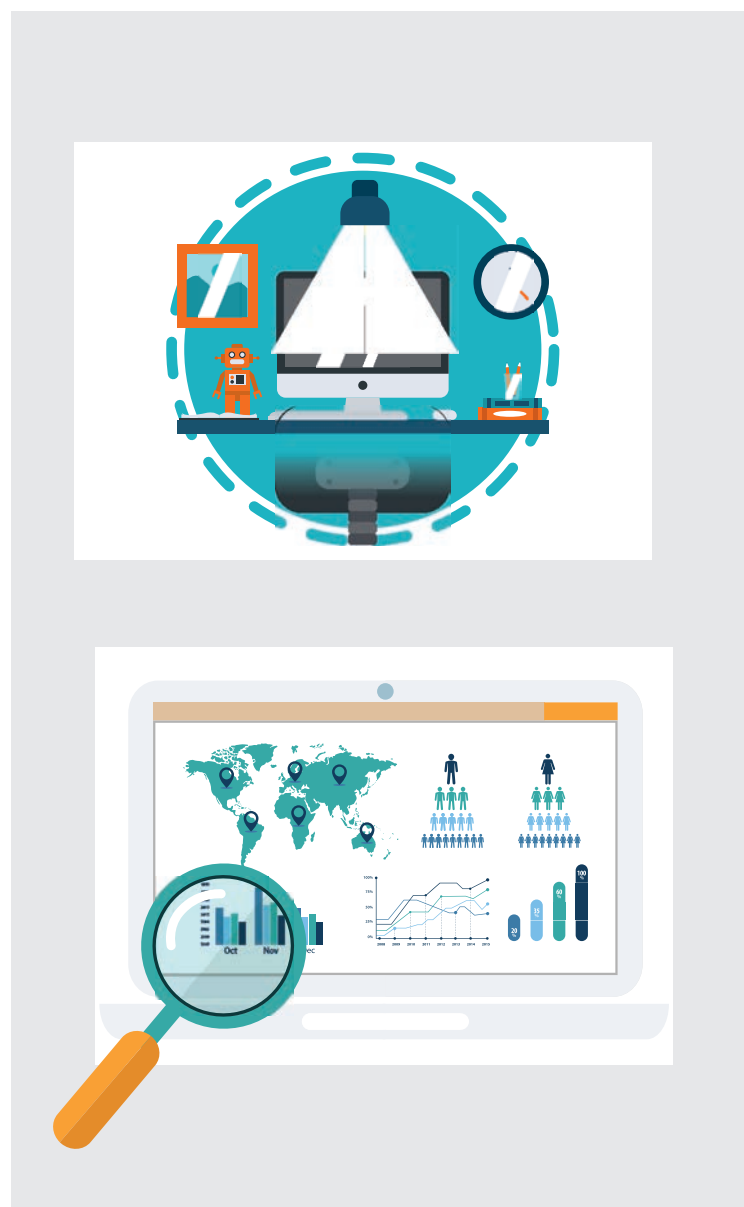
In addition, the operators may also complain of seeing double images and fuzzy coloured fringes. Headache, dizziness, nausea and migraine are likely to accompany the above complaints.

It has been observed that the symptoms associated with the eyes and with vision depend directly on the duration of daily VDU use. The prevalence of visual complaints is higher in workers who use VDUs for seven or more hours per day.

The suggested factors contributing to these complaints fall in to one of these categories: undiagnosed ocular problems, illumination problems and problems associated with general working conditions. In many cases, certain underlying problems often exacerbate these symptoms. For example, uncorrected refractive errors, uncorrected extraocular muscle imbalance and colour blindness may induce more fatigue.

The main stress factor is the frequent switching of the eyes between three different visual objects: the screen, the keyboard and the document, which may be up to 33,000 times per day! Typing with concentration often leads to a reduction in the blink rate. Blinking is a natural phenomenon that spreads tears on the eye surface and helps to keep the eye surface smooth.

It has been found that the average blink rate during concentrated work like computer usage may come down by almost 80 per cent. When the eyes do not blink, no fresh tears are produced and like an engine without lubricant oil, the eyes become dry, irritated and fatigued. There is no experimental evidence to prove that the level of ultraviolet radiation emitted by VDUs is capable of harming the natural lens of the eye and thereby causing cataracts.



### Glare

Unwanted light reflected from the VDU can cause glare and can be a significant cause of eye strain when working for long hours on computers. It can be direct or indirect and can be reduced by using curtains on windows or painting the facing walls in a colour that reflects less light. Fluorescent light fittings can be installed in a direction parallel to the sides of the VDU rather than parallel to the screen face. VDUs can be equipped with a nonreflective glass screen or antireflective screen filters to reduce the glare.

### Image quality

The characters on the VDU need to be of adequate size to be read clearly. If they are too small or placed close to one another, the eye has to strain to view the text. The angular character size of display letters must be a minimum of 16 minutes in height; that is, the character size should be 2.25mm to 3mm. In addition, the distance between individual letters and lines should be adequate for reading without strain.

### Workstation design

Proper posture and viewing angle are essential for comfortable working conditions. Improper design or uncomfortable postures due to poor seating increase the stress the body has to take. The screen should be high enough to be easily seen without excessive flexing of the neck (a viewing angle of less than 25°). The chair must be comfortably padded and fully adjustable and must provide firm support to the lower back.

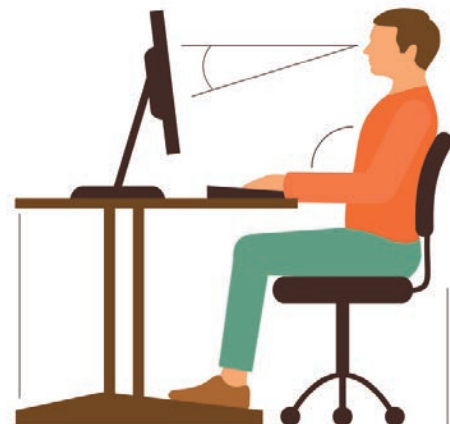
### Precautionary measures

Some standard recommendations have been made to minimize the visual problems related to VDUs:

- The NIOSH recommends a period of adequate rest after continuous work on VDUs.
- An eye examination by an eye specialist prior to starting work on VDUs is advisable.
- People who use computers should be educated on the importance of blinking and they should consciously try to blink at least 10-12 times per minute.
- Correct rearrangement of lighting and furniture at the work site may reduce strain on the eyes.

### Conclusion

Computers are now a vital part of our lives; so is the visual strain caused by working on them. With careful planning and re-arrangement of the work atmosphere, proper eyecare and modifications to the VDU, these problems can be reduced to manageable levels.







# KNOW MORE ABOUT BABY TEETHING

W

When your baby's first pearly white tooth shows up, along with surprise you must be anxious too. You must know what teething is and the symptoms associated with it to avoid unnecessary apprehensions.

Babies are born with all those 20 primary teeth below their gum line. They naturally start to erupt between 6 and 12 months. In some cases it may appear from as early as 3 months or as late as 14 months depending on many hereditary factors. Likewise how babies experience teething also varies. Some may have nearly no symptoms, while other babies experience teething pain for months.

There are some signs for most cases to watch for such as excessive drooling and crankiness – weeks before a tooth actually emerges, while others show no signs at all. Mostly babies and parents may have troublesome nights.

## **In what order do teeth appear?**

Usually, baby's teeth erupt in pairs. The bottom center two teeth are the first to erupt mostly, followed by the two upper teeth in the top center. Then, the array goes outward with lateral incisors and first molars. After this the canines on either side of the lateral incisors pop out and last are the second molars at the very back.

### Here's what to expect during teething

The soreness and swelling of gums at the time of teething makes the kid fussier. Disturbed sleep, irritability, loss of appetite, drooling more than usual, trying to bite, chew and suck on everything, swollen gums and mild fever are the common symptoms.

- Swollen gums: The gum around the erupting tooth becomes reddened, swollen and tender.
- Drooling / Dribbling: Teething will stimulate salivation.
- Teething rash: Due to excessive drooling, skin becomes irritated around the mouth and chin resulting in the appearance of mild rashes.
- Fussiness: Some babies show great irritability and wails due to the pain and discomfort. After the early teething experience, most babies eventually get used to what teething feels like and are not quite so disturbed later on.
- Ear pulling; cheek rubbing: The pain from the erupting teeth can radiate to somewhere else like ears, chin and cheeks. Pulling on the ears or rubbing on the cheek is another sign babies show indicating pain (babies with ear infections will also tug on their ears; so do check with the pediatrician to rule out that).





**Try to distract the baby in order to get their mind off the pain. Sometimes a little extra care or cuddling will be all that is needed to soothe them.**

- Loss of appetite: Due to the pain and irritation of gums, some babies become reluctant to eat solid foods and may need to nurse or bottle feed. Sometimes it can also cause fussy nursing behavior, as some babies experience gum discomfort with sucking.

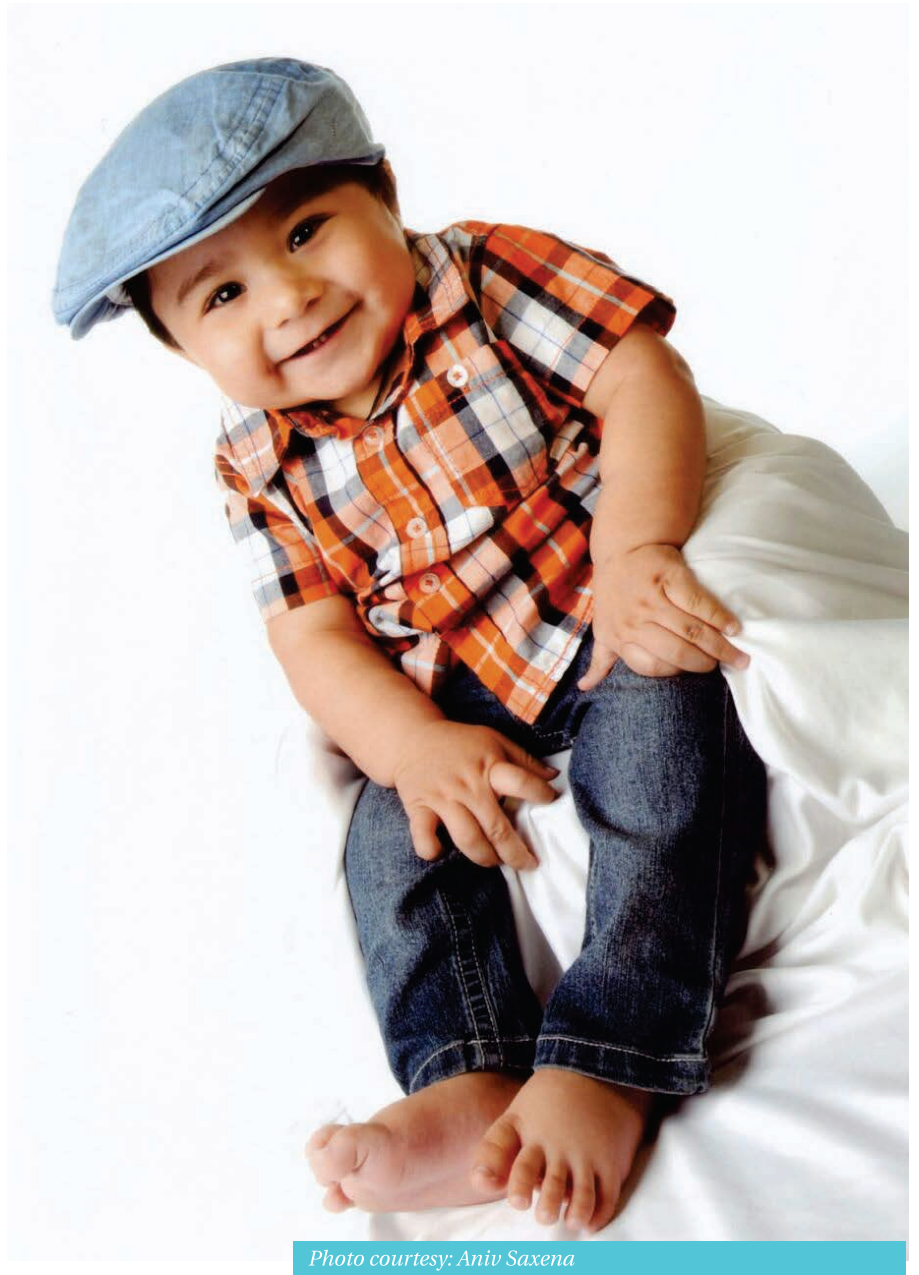
#### **How to Calm a Teething Baby?**

Gentle rubbing or massaging the gums with a clean finger or damp gauze pad can be a great relief to the child. Give the child clean teething toys to chew on and always take an expert opinion before selecting the baby teether's. If the baby's cloth is constantly wet due to drooling, fasten on a bib to make them more comfortable. Try to distract the baby in order to get their mind off the pain. Sometimes a little extra care or cuddling will be all that is needed to soothe them.

#### **How to Care for Your Child's Teeth?**

Start cleaning your baby's mouth by wiping the gums with a clean, moist gauze pad or washcloth. Regular hygiene measures help to keep bacterial plaque levels low. As soon as the first tooth appears make sure to clean it using a finger brush.

Brush teeth thoroughly, twice a day (morning and night) or as directed by a dentist or physician. A child less than two years of age can use a smear of fluoridated tooth paste and children aged two to five years of age can use a pea size amount of tooth paste. Parents should perform tooth brushing for children younger than 3 years of age. Until the child becomes able to brush by his/her own, continue to assist them. Try to use an age appropriate size tooth brush. Always remember to consult a dentist within six months of eruption of first tooth.



*Photo courtesy: Aniv Saxena*

#### **The need for concern**

Usually when a baby enters the teething stage, they show the habit of chewing on their fingers or toys or anything available to get rid of the pressure on their gums. This will subside on its own, once the tooth erupts.

But there is chance of getting infection due to this act. A low grade fever of less than 101 degrees temperature is normal for the inflammation of the gums. If the fever continues for more than 3 days or if it is higher than 101 degrees, consult your pediatrician.



# Accolades



41<sup>st</sup> Installation Ceremony of IDA Kochi Branch, 17<sup>th</sup> December 2016  
Dr. Sabu Kurien (President, IDA Kerala), Dr. Mohamad Sameer P. T. (Imm. Past President, IDA Kerala), Dr. Shaji K. Joseph (President, Kerala Dental Council), Dr. Anjana G. (President, IDA Kochi), Dr. Balu Soman (Hon. Secretary, IDA Kochi) and all other Elected Members.



Shri. John Kuriakose (Managing Director, DentCare Dental Lab Pvt. Ltd.) was honoured by Dr. V. I. Paul & Dr. K. L. Baby (Senior Executive Members, IDA Kochi).



Jubilee year Installation Ceremony of IDA Malanadu Branch, 29<sup>th</sup> January 2017  
Dr. Shaji K. Joseph (President, Kerala Dental Council), Dr. Alias Thomas (IPP- IDA Head Office), Dr. Ciju A. Paulose (President Elect IDA Kerala), Dr. Joby J. Parappuram (President, IDA Malanadu), Dr. Litto Manuel (Hon. Secretary, IDA Malanadu), Dr. Rony Davidraj (Actor, Chief Guest) and all other Elected Members.



Shri. John Kuriakose (Managing Director, DentCare Dental Lab Pvt. Ltd.) was honoured by Dr. P. S. Thaha, Chariman of PMS College of Dental Science & Research, Thiruvananthapuram @ Talentia-2k16, College Day Celebration on 14<sup>th</sup> December 2016.





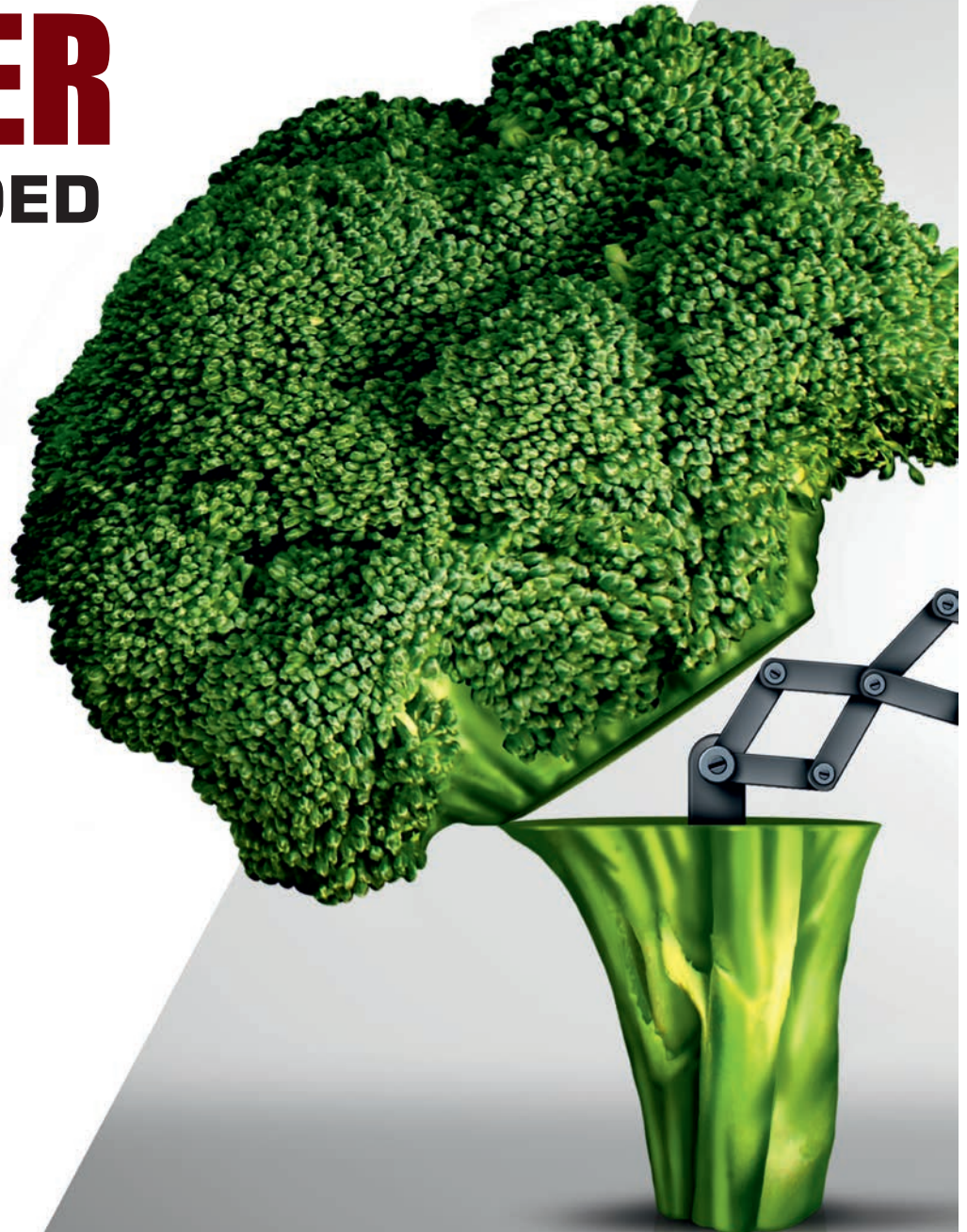
# CANCER

## THE DREADED DISEASE

what is the way out?

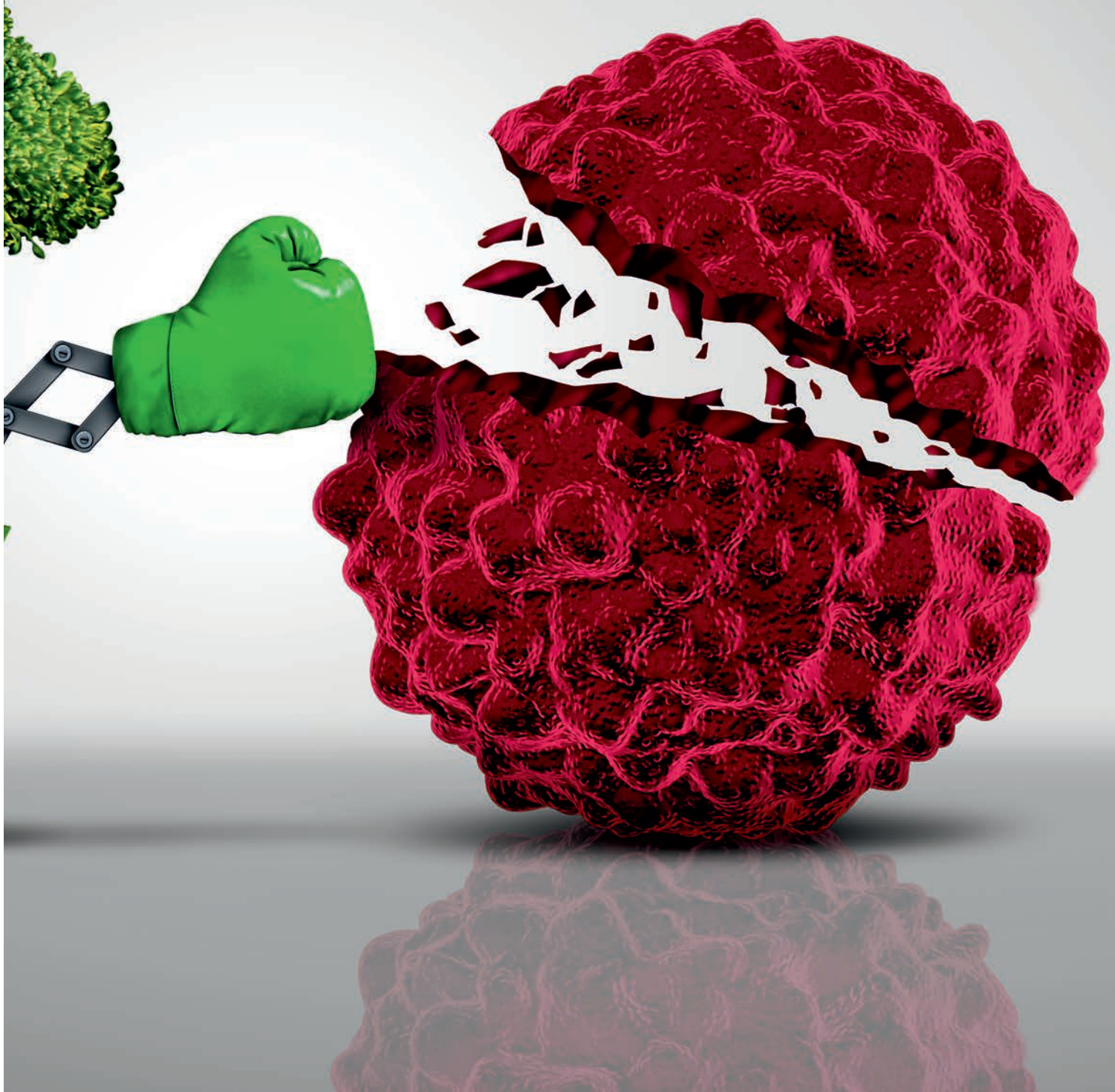
**S**ome alternative thoughts to ignite the senses

Cancer is a worldwide health care problem with an estimated 10 million new cases every year, 40% of which are in developed countries. Mortality is very high with 7 million cases every year. Global costs and socio economic impacts are of high magnitude. Tobacco is the causative factor for 30%, diet and alcohol another 30%, infections accounting to 15% and the rest are of different aetiologies.





**Dr. M.K. Gangadharan**  
Consultant Pulmonologist  
Muvattupuzha, Kerala, India







Last month, I met a friend of mine who had full course of treatment for cancer in stomach and he has been informed that he is cured of his malignancy. What does it actually mean?

It only proves that at the time of examination there were not enough cancer cells in his body which could be detected by the available tests. Cancer cells are present in the human body. They do not show up in standard tests until they multiply to a few billions.

If a patient's immune system is strong, cancer cells will be destroyed and prevented from multiplying. When a person has cancer, it indicates that the person has multiple nutritional deficiencies. Usually supplementing or changing the diet will solve the problem.

But the deficiencies could be due to multifactorial causes like genetic, environmental, food or lifestyle. As the causative factor of cancer is multifactorial, its treatment is also sometimes holistic.

Now let us see what happens with our accepted forms of treatment for cancers. We know surgery, chemotherapy and radiotherapy are the mainstay of treatment. A mutilating surgery can spread the cancer cells through blood and lymph, chemotherapy is poisoning cells and destroying them. It not only destroys cancer cells but normal cells also.

Fast growing cells of bone marrow, gastro intestinal tract, kidney, liver and heart are also affected. Radiation while destroying the cancer cells burns adjacent cells and organs also.

With either chemotherapy or radiation, immune system is either compromised or destroyed and the victim is exposed to various infections and complications. Sometime the cancer cells become resistant to treatment and spreads easily. But still these three forms of treatment are the modalities of cancer treatment.

Other methods of treatment include Bone marrow transplant, Stem cell transplant, Hormone therapy, Photodynamic therapy, Cryosurgery, Immunotherapy and Gene therapy.

Here is a different line of thinking by Mr. John Hopkins, a scientist, "All cells need food for their growth, so also cancer cells. By starving the cancer cells of their favorite foods can contain their growth and cause regression." He researched and succeeded. Now let us see his recommendations.

1. Most important food is sugar. We cannot completely cut off the patient from sugar as the starch we take will be converted to sugar. But free sugars can be cut off and substituted with manuka honey or molasses.

2. Avoid table salt as chemicals are added to it to whiten it, use sea salt instead.



6. Coffee, Tea, Chocolate etc. contain caffeine which is a growth stimulator for cancer cells, so avoid these drinks and substitute them with purified filtered water or green tea which contains antioxidants.

7. Meat protein is difficult to digest and needs large quantity of enzymes. Undigested meat is putrefied in the gut producing toxins.

8. Cancer cells have thick protein covering; by refraining from eating meat or less meat, enzymes will be available to attack the cancer cell covering.

9. Some food supplements can build up immune system. IP6 (Inositol hexaphosphate), Floressence, anti-oxidants, minerals, vitamin E are some of them. They fight apoptosis (programmed cell death) which is body's natural method of disposing damaged, unwanted cells.

"All cells need food for their growth, so also cancer cells. By starving the cancer cells of their favorite foods can contain their growth and cause regression."

-John Hopkins

3. Milk produces mucous in the body especially in the gastro intestinal tract and cancer cells feed on mucous. This milk could be substituted with soya milk.

4. Cancer cells thrive on acidic environment. Meat based diet is acidic, but fish is not. One can eat chicken than beef or pork. Meats also contain livestock antibiotics, growth hormones and parasites which are harmful to the cancer patient.

5. Diet with 80% fresh vegetables, juice, whole grains, seeds and fruits will produce alkaline environment, 20% of which could be cooked food. They provide live enzymes which helps in easy digestion and absorption. Eat as much as raw to get fresh vitamins and enzymes. The enzymes and some vitamins are lost when food is heated above 40°C.

10. Cancer is a disease of mind, body and spirit. A proactive, positive spirit will help the cancer warrior to be a survivor. Anger, unforgiveness and bitterness put the body into a stressful and acidic environment. Learn to have a loving and forgiving spirit, learn to relax and enjoy life.

11. Cancer cells cannot thrive in an oxygenated environment, exercising daily and deep breathing help to have more oxygen down to the cellular level. Oxygen therapy is another means employed to destroy cancer cells.

The above recommendation does not replace the established methods but acts as adjuncts and helps to achieve the target early.

In the hope that newer treatment will be available in the near future!!!





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# BEHAVIOUR MANAGEMENT

## WHAT AFTER VIRTUAL REALITY?

Over the last few years, virtual reality has gained the attention of nearly every dental professional as a convenient and successful behaviour management technique. It employs visual stimuli along with auditory stimuli and exposes the patient to a two dimensional or three dimensional video, thereby leading the attention of the patient in to a virtual world.

As described by Aminabadi et al, “VR (virtual reality) refers to a human-computer interface that enables the user to interact dynamically with the computer-generated environment. Conventionally, it uses sophisticated systems such as head-mounted, wide field-of-view 3-D displays (HMDs) and/or motion sensing systems that measure the user's head and hand positions. These enable users to interact with the virtual environment.”

Many studies have shown that the use of VR, as a distraction technique, has had a great impact in reducing patient anxiety, pain and discomfort. Even so, the application of VR distraction depends on:

- Cooperation from the child and parents/ caregivers
- Temperament of the child
- Severity of anxiety towards the dentist and dental treatment (proven to work only in mild-moderately anxious patients), and
- Dental procedure being performed (what and how long)

Thus, we look toward ongoing research into newer methods of behaviour management especially for children.





**Dr. Lekshmi R. Suresh**  
Post Graduate Student



**Prof. (Dr.) Amitha M. Hegde**  
Sr. Professor and Head of the  
Department



**Prof. (Dr.) Vabitha Shetty**  
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## Video Game Distraction

Video game distraction is essentially a combination of play therapy with A/V or VR distraction systems. The application of Video game distraction is especially attractive to children and is characterised by its ability to engage much of a child's attention for a longer duration of time.



Other advantages are:

- ☐ Can be easily combined with most medical and dental treatments
- ☐ More cost-effective than many behaviour management procedures like hypnosis and relaxation
- ☐ Can be played without medical supervision
- ☐ However, concerns regarding its use have been reported in children and adolescents who are excessive users of videogames like
- ☐ Addiction
- ☐ Increased aggressive tendencies
- ☐ Medical side-effects such as photosensitive epilepsy, head and eye strains, auditory hallucinations, enuresis, wrist pain, neck pain, elbow pain and repetitive strain injuries

Since most dental treatments are of short duration (less than an hour), many of these adverse effects are most likely minor, temporary and /or spontaneously reversible.

## Sensory Adapted Dental Environment (SDE)

The Snoezelen Dental Environment / Sensory-adapted Dental Environment (SDE) uses visual, auditory, somato-sensory and tactile sensations in a specially adapted multi-sensory room (pioneered by IB Shapiro). The modified sensory

dental environment “floods” the senses with distracting stimuli. This causes the child patient to be in an “altered state of arousal” or reduced awareness of the discomforting stimuli.

### **PediSedate® Technology**

The PediSedate® technology is a non-invasive combination of pharmacologic (nitrous oxide/oxygen inhalation sedation) and non-pharmacologic (VR distraction) approaches. This combination essentially eliminates many of the drawbacks that are associated with either pharmacologic or non-pharmacologic methods of behaviour management.

The PediSedate® device is made from colourful plastic and incorporates a head-set that can be attached to an interactive video component. This allows a child to play videogames and watch videos, while at the same time listen to its audio portion. An inhalational sedative agent like nitrous oxide can be passed through its adjustable nose-piece. Thus, sedation occurs while the child is involved in playing a hand-held video-game and remains distracted.

The PediSedate® device also ensures monitoring capabilities with a pulse-oximeter and a capnometer sensor.

### **NuCalm Technology**

NuCalm is a patient-pending technology that adds upon distraction to relax the brain and body by “mimicking the body's natural experience of preparing to sleep.”

This technology uses a combination of four sensory applications:

- ❑ Chewable tablets – dietary supplements to counteract adrenaline, primarily GABA (gamma-aminobutyric acid) and L-Theanine found in tea plants (like Camellia sinensis).
- ❑ CES - An FDA-cleared Cranial Electrotherapy Stimulation device. It produces low amounts of electrical current, which signals the brain to produce a state of relaxation.
- ❑ Neuro-acoustic binaural beat software uses audio signals for entertainment and relaxes the patient's brain through noise-reduction head-phones.
- ❑ Black-out glasses/Light-blocking eyemasks are used to block light and help the patient maintain a state of deep relaxation.

---

### **Conclusion**

Technological advances in dentistry have changed the face of dental practice over the last few decades. It is only right that these changes also reflect upon behaviour management techniques being practiced. The techniques outlined above are recent modalities that have failed to receive adequate attention in literature, but merit further consideration by dental professionals.





## DESIGNED WITH RELIABILITY IN MIND: ESTHETIC WAXING-UP MADE SYSTEMATIC AND SIMPLE

Whether a wax-up is monolithic, diagnostic or esthetic: the better it is, the better the subsequent treatment.

With the new GEO Expert Wax Set A. Bruguera from Renfert, who have been successfully producing dental waxes and waxing equipment for over 40 years, not only can the shape, position and occlusion be accurately represented, but also the final coloring of single crowns and bridgework. The hard modeling waxes created with the help of August Bruguera are impressive above all for their outstanding modeling and scraping properties. The highlights of this perfectly coordinated system are the tooth-colored modeling waxes with different degrees of transparency and the effect waxes. They can be used in a structured manner to create natural-looking, hyper-realistic wax-ups and individual characteristics, entirely in keeping with Bruguera's philosophy.



A wax-up serves as the basis for information and discussion, for use when planning, analyzing and deciding on the final treatment. Renfert has teamed up with the international opinion-leader August Bruguera to develop the **GEO Expert** range of waxes which will make this preliminary, three-dimensional work easier for the dental technician, and the waxing-up process even safer and more effective.

### More color details in the wax – more individuality in the ceramics

With these new modeling waxes, which retain their consistently high quality and are extremely easy to work with, and the clear, step-by-step guidelines that come with the system, the preparation of monolithic, diagnostic or esthetic wax-ups becomes simple, accurate and efficient. Thanks to their carefully balanced flow and setting times and outstanding stability, even the most delicate structures such as cusp ridges and mamelons can be neatly modeled. The modeling waxes can be worked with a probe and a Bunsen burner, but outstanding results can also be achieved with an electric waxing-up device such as the **Waxlectric**, which helps avoid sudden contractions and flame residues.

"For many dental technicians, esthetic waxing-up is time-consuming work that doesn't really seem worthwhile. But the more realistically you can model the teeth, the better you can see the available space, the shading and the individual morphology which will be reproduced in the subsequent ceramic restoration." For Bruguera, natural-looking wax-ups are essential when carrying out esthetic restoration work. To ensure that they are produced reliably, the **A. Bruguera GEO Expert Wax Set** consists of eight high-quality modeling waxes: two esthetic, two morphology and four effect waxes.

### One wax set to meet all customized esthetic needs

The opaque modeling waxes GEO Expert sculpture and dentin are ideal for modeling monolithic wax-ups and for crown and bridgework. The tooth-colored modeling waxes GEO Expert dentin, enamel and translucent enable an esthetic wax-up to give a perfect visual perception. Thanks to the translucent effect of GEO Expert enamel and translucent, outstandingly true-to-nature restorations can be created in wax. As Bruguera explains: "If we use a transparent modeling wax right from the start, then the wax-up is perceived optically in the same way as

the finished ceramic restoration after the glaze bake." The purely organic waxes GEO Expert "enamel" and "translucent", and the GEO Expert effect waxes, burn with no residue and are particularly suitable for full ceramic or pressable ceramic solutions.

Completing the set, there are four effect waxes (GEO Expert white, orange, blue and brown), which are used to give natural, individualized color to tooth-colored wax-ups.

Whether it is for a visualization using a model, for a permanent restoration, for pressing and overpressing, or for scanning for digital processes, with the **A. Bruguera GEO Expert Wax Set and the GEO Expert modeling waxes**, together with the two tried and tested **GEO Classic** and **Crowax** wax ranges - restructured versions of which will be available from September 2016 - every dental technician is bound to find the system they need.

The Bruguera Wax Set is available from March 2016 and consists of eight cutting-edge modeling waxes and a top-quality, 72-page manual giving a step-by-step, illustrated explanation of Bruguera's philosophy of monolithic, diagnostic and hyper-realistic waxing-up.



making work easy



# When does work feel good?

When mind and body work hand in hand.



I use the GEO Expert Wax Set in my daily work. The set's key benefit lies in its simplicity – with only a small selection of high-quality waxes you can easily succeed in fabricating esthetic wax-ups. For me, this is making work easy.

*A. Benquer*

**Renfert**

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The GEO wax ranges include the optimum modeling wax for crown and bridge and CrCo work.

This is what makes work easier

- 1 optimum waxing up and modeling properties
- 2 high-quality materials
- 3 coordinated to working with electric wax knife and open flame



making work easy



[www.renfert.com](http://www.renfert.com)



A close-up portrait of a woman's face, split vertically. The left side of her face is clear, showing her blue eyes and pink lips. The right side is partially covered by a white medical tape that is being peeled away from her forehead. Below the tape, there are three circular, textured bandages: one on her right eye, one on her cheek near her mouth, and one on her neck. The background is a solid light pink color.

# Plastic Surgery: *An Overview*



**Dr. U. R. Nandakumar**  
Senior Consultant Plastic Surgeon  
Cosmopolitan Hospitals Pvt. Ltd.  
Thiruvananthapuram, Kerala, India

Plastic surgery is not a speciality of any system, but it is speciality of special techniques, with which it reconstructs various parts of the body. Hence it deals from head to foot. This is the unique peculiarity of this speciality.

**R**econstructive surgery was practised in 600 BC in India by the saint physician, Sushruta, who is considered as the father of ancient plastic surgery. But it was during World War I, plastic surgery developed into a speciality, which treated a large number of wounded soldiers. It was purely reconstructive surgery to begin with.

Later, the principles of reconstructive surgery were applied to improve the appearance of normal body structures and thus cosmetic surgery was born as a second subdivision of plastic surgery. Even though more than a century has passed since plastic surgery came into being, and explosive discoveries and innovations have developed, still it is a speciality less known to many and unknown to many more. Worse than that, it is misunderstood and feared by many people.

#### **Why is it called “Plastic Surgery”?**

“Plastic” implies sculpting or reshaping, which is derived from the Greek word “plastike”. Since this

surgical speciality gives shape to various parts of the body which are defective or deformed, in form and function, either by birth or due to injury or due to infection or due to any surgery, it is called “Plastic Surgery”.

#### **Peculiarities of the speciality**

Plastic surgery is a subspeciality of a larger speciality “Surgery”. It is also called a super speciality like neurosurgery, cardiothoracic surgery, genitourinary surgery etc. It is called super speciality because it requires a higher qualification after obtaining postgraduate degree in general surgery.

All super specialities except plastic surgery deal with a particular region or system of the body. For example, neurosurgery deals with diseases of brain, spinal cord and nerves. Cardio-thoracic surgery deals with heart, great blood vessels and structures inside the thoracic cavity, genitourinary surgery deals with urinary and reproductive system, gastroenterology deals with stomach and intestines and paediatric surgery deals with surgical diseases of children.

Plastic surgery is not a speciality of any system, but it is speciality of special techniques, with which various parts of the body can be reconstructed. Hence, it deals with areas from the head to the feet. This is the unique peculiarity of this speciality.

Mostly it deals with externally visible problems. For that reason, the final outcome is seen by everybody. Hence, there is always an element of cosmesis in the dealings of a plastic surgeon.

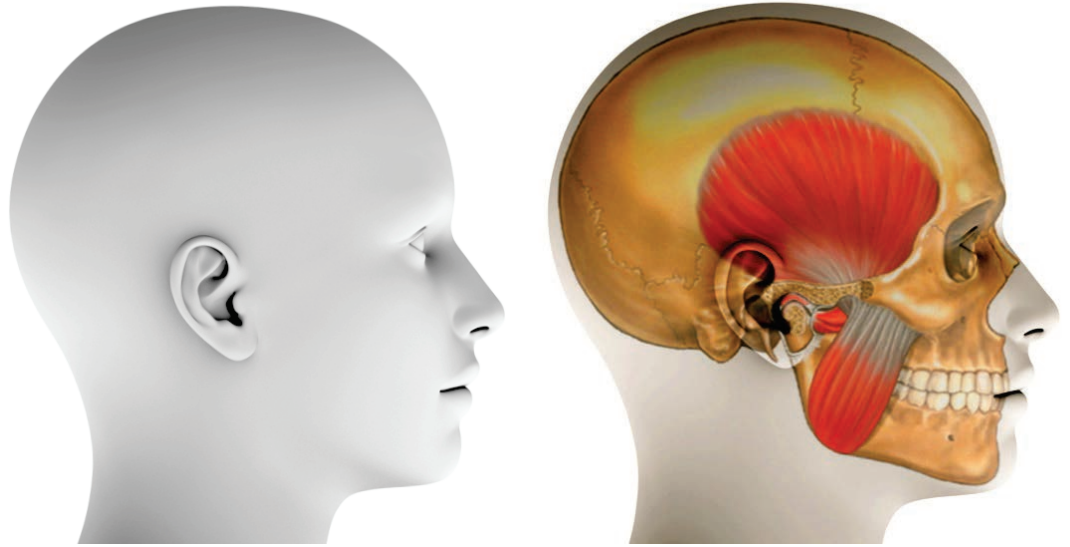
The Plastic surgeon tries to get the least scar. For that the most important element is meticulous surgical technique with least trauma to the tissues, that takes a lot of his time during surgery. Patience is the fundamental requirement to become a plastic surgeon. Since he tries to impart least trauma to the tissues, he uses finest instruments and sutures.



## Various subdivisions of plastic surgery

As science advances, scientists tend to seek more and more knowledge about smaller fields. That is how specialisation develops. This phenomenon is all the more well established in the medical field. Thus, plastic surgery also has different specialised fields.

Broadly plastic surgery has 2 subdivisions: Reconstructive surgery and Cosmetic surgery.



### Reconstructive surgery consists of the following special fields:

1

The commonest reconstructive surgery performed is the coverage of skin defects on various parts of the body caused by various reasons. Skin grafting is only one of the techniques of skin cover. There are more complex techniques like flaps, tissue expansion, microsurgery etc. to accomplish skin cover in special situations. Reconstruction of chest wall defects, reconstruction of breast after mastectomy for cancer, difficult abdominal wall hernia repair, reconstruction of defects of lower limb after trauma or cancer excision—all fall under this category of plastic surgery.

2

Cranio-maxillofacial surgery: deals with reconstruction of defects and deformities of head including skull, face including nose, ear, cheek, lips, eye lids, removal and reconstruction of oral cancers and vascular anomalies of head and neck, correction of deformities of facial bones, treatment of injuries of the face.

3

Hand and microsurgery: Hand is a very important part with many fine structures inside. It needs very meticulous and fine surgical work to repair injuries of the hand and reconstruct deformities of the hand.

4

Burns and post burn problems: Skin is the most common structure that is damaged in burn injuries. After healing of burns, scar and scar related problems lead to lot of deformities which may affect any part of the body. Burn injuries are treated from the beginning by the plastic surgeon. Post burn deformities are one of the common problems treated by plastic surgeons in our country.

5

Lymphoedema: Stasis of lymph in the upper or lower limb is treated by plastic surgery. Recently special microsurgical techniques have been devised to treat lymphoedema.



Cosmetic surgery is only a part of plastic surgery. In developing country like India, it forms a small proportion of plastic surgery, especially in non-urban areas. Cosmetic procedures can be surgical and non-surgical. It includes hair restoration, facial rejuvenation, rhinoplasty, otoplasty, cheiloplasty, neck lift, breast augmentation and reduction, body contouring which includes liposuction and dermolipectomy, buttock and thigh lift and recently female genital cosmetic surgeries.

### Who is a plastic surgeon?

Every patient has the right to know the capabilities of his or her treating doctor. So the common man should know whether they are going to the correct person.

To become a plastic surgeon, one has to get MBBS degree (five and a half years after +2). Then he/she should obtain a post-graduate degree in general surgery (three years) and then do another three years of postgraduate course in plastic surgery to get the degree in plastic surgery (M.Ch or DNB or other equivalent degree reco-

gnised by Medical Council of India). Then only can he/she be called or designated as a plastic surgeon.

After this, many go for further training in their field of subspeciality like microsurgery, hand surgery, craniofacial surgery, hand surgery etc.

The common man should be aware of the scope of this speciality and understand that plastic surgery is not cosmetic surgery alone. The service of a qualified plastic surgeon is available in almost every hospital in Kerala.





# Overcome Exam Fear for WIN-WIN

## F

Exams are often considered a 'fear' factor among children. Students of all age groups undergo exam anxiety and have 'exam phobia' when they are round the corner. Some do take it easy while some cannot. The extent of exam stress is so much that it drives them to take extreme measures.

The fear of exams is more before the exams causing them to underperform on that day. It is worse when students have older brothers or sisters who have performed well and they are expected to keep up to their standards.

From the beginning of a child's academic life, exams are taken up to be extremely important and off-late, exams are becoming increasingly competitive. In the scenario of today's education system, exam stress is elevated and children tend to crumble under this enormous stress. Such stress might lead to children falling sick as the examinations come close by or some might even become completely blank during the examination. Excessive exam stress might be the reason for such experiences.

## Steps for a Winning Strategy in Examinations

**1. Start revising early:** Students who start revising their portion early find that they can manage to answer without any stress or exam pressure. The sooner you start the better. As practice leads to a better understanding and recollection, students are often advised to revise early. It will avoid panic at the last moment. Preparing well ahead of exam will allow you to focus on difficult topics so that you allocate time for it also.

**2. Your own timetable:** As a student you are well aware of the subjects that you need to work more on. It is not by the grades but rather the length of material or depth of the contents that you need to know about. To prepare for it, you need to create your own timetable for all seven days of the week. The timetable should be realistic that you abide by it.

**3. Chart out:** You know the number of chapters and which one is difficult to prepare. Make a rough sketch of the units or chapters that you need to prepare. Then align those in sequence of priority against the days of the week or the timetable you have set. You can amend the timetable or modify to suit to your needs.

**4. Mix of subjects:** While making a timetable or charting it out, it is best to study one subject in the morning and another subject in evening. Studying the same subject will make you feel bored or make the mind dull. Take a mix of two subjects and try out. You will surely feel the urge to complete the topics that you intend to.

**5. Target for the day:** Without aim, there is no way that you will achieve anything in life. Even fixing a target for the day is crucial. As you would have noted down the chapters or topics you need to revise, break down these chapters as against the days.

**6. Allocate time for breaks:** Making a timetable is not an easy task. While making it, do make time for breaks in between. You might get up for your bath or using the washroom, you may need to wash your clothes, you may need to clean the room etc. All these can be considered as a break. Then include your dinner, lunch, breakfast as well. Even listening to music at intervals of three or four hours is not bad. Breaks bring back enthusiasm while studying.

**7. Sleep well:** Students often study without taking rest. Sleeping during the afternoons is often advisable to give rest to your brain and eyes. You would feel that you are fresh after that break of sleeping. Do not try to be nocturnal. Students are advised to take minimum of 6-7

hours of sleep during night. You can cope up better with the study next day.

**8. Taking notes:** Students who take short notes while studying find it useful while revising during the exam time. Notes can be in the form of brief ones or bullet points. Some students write in pictured format denoted with different symbol to recollect during exams. Such notes come in handy. This can be followed when you find the subject to be difficult to study.

**9. Write legibly:** If you start your preparations early, then you will have time for writing down neatly. Students often tend to think that making notes is just a copy paste activity. It is not so. The notes are to be written legible on what you have understood of the topic. Do not scribble it out. You are going to refer it for exams later on, so make sensible notes.

**10. Using highlighters:** Students often underline important areas in the book to make note of essential points. By using highlighters it will help the student to know which





important note to be remembered where. Using keywords is also useful to remember the importance of the topic that is being revised.

**11. Headings and sub headings:**

While making notes, it is useful to separate the topics with heading and sub headings below it. It not only ensures that the points are separated out but also helps the student to remember what the main subjects under the topic are.

**12. Using flow charts:** Students can adapt the method of drawing flowcharts to remember the various steps involved. They need to judge where they can take notes depicting flowcharts. Such flowcharts are quite easy to remember while revising. It is said that the mind can remember anything that is in the form of pictures or flowcharts.

**13. Organise your notes:** Once you have started preparations with your subjects, try to organise separate files for each subject. Keeping separators for all your notes will be useful while revising them. It is imperative to mention the chapter name at the top while page numbers at the bottom of each page so that you are not mixing them up or getting them misplaced. Arranging all test papers, essays, assignments related to a subject in one folder will make it easier for revision when studying.

**14. Decide when to study:** If you are able to concentrate in the morning better than at night then allocate hard subjects in the morning. Or if your house is quiet in the morning, then you can allocate time for such subjects. If you are person who loves to study after evening

hours, then allocate the study time after that and keep easier subjects in the morning.

**15. Ask for help:** When you feel you need help with any subject or you feel stressed out, ask your parents, friends or teachers for help. Or you feel you cannot schedule your study, ask your parents for guidance. If one of your parent's is good at scheduling and guiding you, then you are sure to get help all the way till the exam.

**16. Share with someone:** Sometimes, no matter how much you have revised or how much you are thorough with your subjects, the exam fear still lingers on inside. It is better to share out your feelings with a mentor or your parent. Explaining about the stress and exam tension will make you understand what the real cause is for it. After that, you would be sure to dissipate the fear which will not come up again.

**17. Answer previous papers:**

Revising the topics is always not complete without answering previous year's question papers. Try to get previous year's papers through peers or teachers or even internet. It helps to know where you stand and how prepared you are. You are advised to answer those papers only after completing all the chapters. Answer them without referring your books and try to be true to yourself.

**18. Do not compare with your friends:**

You must understand that each one in the school or college is not same. Everyone has different ways to study and understand the subject. So even revising a subject is different for each one of you. Never make comparison on the subjects you have done with your friend. Some have the habit of calling their friend and ask how they are preparing and how much he/she has covered.



**19. Talk it out:** Students of any age group must be encouraged to talk it out to their mentors or parents. The parents need to spend some time with their child to know what is really disturbing their minds. By talking it out with them they are sure to ease out their fear. Also they should be encouraged to discuss everyday what they have done and what have they completed, whether they were able to complete their task and if not why. These small discussions at the end of the day will motivate them to work harder the next day.

**20. Visualize positivity:** Whenever you are preparing for exams, visualize that you will pass the exam. Never allow the thought of failure to ruin your exam preparation. The mere thought about failure or fear is an invitation for stress to overcome you. During that period of stress, you will not be able to complete your studies. Hence, feel that you will pass

with all the work you have put through.

**21. Physically active:** Studying throughout the day is sure to cause you more anxiety of completing the portions. Taking time out to play games which you like is a stress buster. There are various options for such stress busters. Riding your bicycle for a short distance, going for a short walk, going to the gym, doing gardening, doing any other household chore are some sort of activities that will de-stress and refresh your mind.

**22. Have balanced meals:** Students often tend to skip a meal or breakfast during exam time. It is a grave mistake that they make. Skipping does not solve your problem. In fact skipping meals is going to deprive your brain of vital nutrients. Hence, you need to have a proper intake of proteins and carbohydrates. Intake of essential nutrients helps you to focus well.

**23. Practise meditation:** In spite of all the work, if you still seem that you cannot overcome fear and anxiety, then trying out meditation in the early morning may be helpful. Meditation would bring your mind to focus. It would also remove unwanted thoughts from your mind. Ask for some guidance on facts about it. Or you could just squat on the floor, close your eyes and keep your face facing upwards. Your palms should be kept open on your lap facing upwards. Perform this for 10 to 15 minutes in a day early in the morning.

**24. Stretching:** While a student is studying, they often sit for

hours on their desk or chair. Getting up once in a while is advisable. Also stretching your muscles after two or three hours refreshes you. Your neck, hands and legs needs a bit of stretch once in three hours or it would cause discomfort not allowing you to concentrate. This way you lose track and in due course of time feel dull.

**25. Try for group study:** Sometimes, peers or people of same thinking like to get together to study. You could try out this option to stay connected with your buddies. Group study helps one to analyse what is important or what you had overlooked. By staying focused on the subject, revising with your friends could make you help them or they help you to solve a problem that you had not known.

As every student is aware that the exam dates are usually given ahead of time, it is the responsibility of the student to prepare well in advance for the papers. It is even better if they schedule a specific timetable to revise them and make notes. Making an attempt to revise during the days closer to exams will only cause panic and fear.

If you still feel there is something bothering your mind not allowing you to study, seek help from your parents or teachers. They are the best counselors. Last but not the least, staying positive about the exam is the foremost factor for any student appearing for it.

Keep saying to yourself that you will pass the exam and bring in positive results.







A hand holding a smartphone is shown at the bottom left. A digital overlay emanates from the screen, featuring a network of glowing nodes connected by lines, with various electronic devices like laptops and tablets integrated into the network. Floating around this network are several currency symbols, including the US dollar (\$) and the Indian Rupee (₹).

# WHAT IS UPI APP: UNIFIED PAYMENT INTERFACE OF INDIA?

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**U**PI is a payment system which facilitates the fund transfer between two bank accounts. This payment system works on the mobile platform. Sending money through the UPI app is as easy as sending a message. You are not required to give bank account details for the fund transfer through the UPI payment system. UPI is one of the most advanced methods among all the digital payments.

## **Benefits of UPI**

UPI is revolutionary. It will make the banking transaction a breeze.

The UPI transfers the fund immediately. No restriction of holiday or working hours. A bank strike will also not affect the UPI payments.





1. You do not require the bank account number and IFSC code of the recipient.
2. You can transact from many bank account through a single UPI app.
3. You are not required to wait up to 24 hours to send money to a new payee. Anyone would get money immediately.
4. You can send bills and get money once the client approves it.
5. You can use the Cash on Delivery without paying cash to the delivery boy. Just approve the bill and the delivery boy would get confirmation.

### How UPI is better than IMPS (Immediate Payment Service)?

IMPS also transfers fund immediately, 24 x 7. But, UPI has some advantages over IMPS.

- To send the money through the UPI, you do not need to know about the bank of the recipient. It is necessary in the case of IMPS.
- To use the IMPS, you need the bank account number and IFSC code of the recipient.
- Only through the UPI, you can ask for the payments through the banking channel. In fact, one touch would complete the payment. You would agree that this method of getting payment would have more success rate.
- You cannot pay for online shopping through the IMPS. But UPI gives the easiest way of online payment.

### Virtual Payment Address (VPA)

The UPI payment system does not use the bank account details of the recipient. But, there should be an accurate identification of the money recipient. Ultimately, all this convenience is fruitful only if the money goes into the right hands.

So, every user of the UPI apps must have a unique ID. This unique ID is called as the Virtual Payment Address (VPA). Now you can frown on this new headache of remembering the VPA.

But, do not worry. It is going to be very easy. It would be as easy as a mail ID. Rather, it would be similar to the mail ID. For example raju@icici, mary@bob, boban@axis etc. In fact, the App provider bank would allot the VPA to each user. You can choose the VPA similar to the mail address.

You can give this VPA to anyone to receive the money. The app would itself keep storing the VPAs of the person to whom you have transferred the money. It is like saving contacts in Gmail. So, from the next time you do not even require VPA of the recipient.

### How to Get UPI APP?

As told you in the beginning, the UPI payment system works only through the mobile application. Thus, you need a smart phone and internet data pack.

There are several UPI Apps. You can choose any of them. Each bank can launch its UPI-based APP. Banks can also incorporate UPI features into their existing mobile application. Such as, ICICI Bank has incorporated UPI into the iMobile and Pockets. In fact, most of the banks have incorporated UPI in their existing mobile application.

Hence, if you already have an app of a bank, the update would be sufficient. Otherwise, you can download the UPI enabled app from the google play store. As of now, the UPI enabled apps are made only for android. Soon, the windows and iOS customer would also enjoy this.

### Which UPI App should I Download?

There are several UPI apps in Google Play store e.g., BHIM app, SBI Pay, Pockets, HDFC Mobile, iMobile, Phonepe, PNB UPI etc. You may be confused.

- Which App should I download?
- Should I download the UPI enabled app of my existing bank?

Actually, you are free to download any UPI enabled app. It can be from your bank or from any other bank. Choose an App which has the better interface. However, the obvious choice would be the app from your bank.

But, do not fret to try the other apps. You can start with the BHIM (Bharat Interface for Money) app. It is a basic app and very simple too.



### How to Connect with Bank Account?

The UPI has made fund transfer very easy. But it is not a mobile wallet. Unlike the mobile wallet, you are not required to credit money into the UPI app.

Rather, every fund transfer takes place through your bank account. UPI app just acts as the link between you and your account. In other words, it has made the bank account transaction easy and cheap.

So, to establish the link between you and your account, you have to connect UPI app to your bank account. This is a one-time process. It is done when you download a new UPI app. The UPI payment system gives you the liberty to connect many bank accounts to one VPA. In fact, you can add all of your bank account to one UPI app. However, BHIM app links only one account at a time.

While connecting to the bank account, you have to authenticate it through the card details and OTP (One Time Password). Once your UPI app gets connected to a bank account, you can easily transfer the fund to any person.

### Send Money through the UPI App

To send money through the UPI app, you have to go through these steps.

- Open the UPI app using the passcode. The Passcode is mandatory to open the app.
- Click on Send money. Choose the bank account from which you want to send money. If you have linked one account, you are not required to choose. When you send money using BHIM app, you would not see this option because it links only one bank account at a time.
- Select the receiver. You can choose a receiver using the VPA as well as the bank account number and IFSC code. So, it is better to get the VPA of the money recipient.
- Add the VPA, if it is not already added.
- Enter the amount and send the money. Before the final confirmation, you have to enter the MPin (Mobile Banking Personal Identification Number). In the BHIM app it is termed as the UPI PIN.



- The money immediately gets credited to the account of the recipient.

### Security of UPI Payment

The united payment interface is as much secure as internet banking or mobile banking. To transfer the money through the UPI app, one has to go through the two-factor authentication.

1. To open UPI app, you have to give a PIN.
2. To transfer the money, again you have to enter the MPIN or UPI PIN.

All other transactions also go through these two two-factor authentication (using a username and password together with a piece of information that only the user knows makes it harder for potential intruders to gain access and steal that person's personal data or identity).

As India is moving forward to a cashless economy, DentCare is also following the country's footsteps. We encourage all our customers to use Pay via UPI as the preferred mode of payment.

### Our VPAs are

[dcddl@federal](mailto:dcddl@federal) – for Within the State Customers

[dcdlp@federal](mailto:dcdlp@federal) – for Out of State Customers

[Please contact our Accounts Department or directly ask our Sales Executives for more information about DentCare Virtual Payment Address \(VPA\), if you have any questions.](#)

You should adopt this method of payment because it also reduces the black economy.

*This article is sourced from an article published in <http://upipayments.co.in>*

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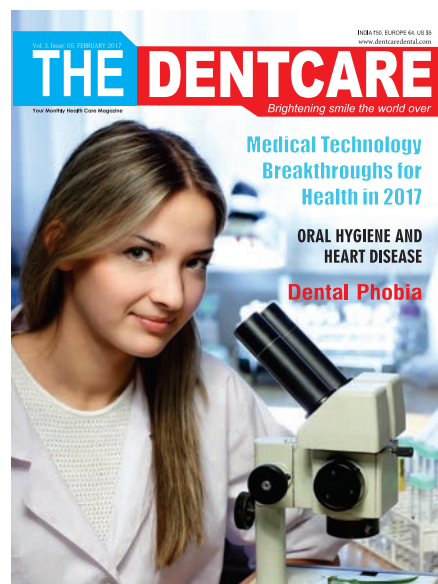
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## Theme of this Issue

National Science Day is celebrated in India on 28<sup>th</sup> February each year to mark the Discovery of the Raman Effect by Indian Physicist Sir Chandreshekhara Venkata Raman on 28<sup>th</sup> February, 1930.

*We wish that India will be blessed with more C. V. Raman's and that more Nobel Laureates will be born to serve mankind globally.*



*Enjoy the new version of  
The Dentcare magazine*



## MY EXPERIENCE WITH DENTCARE

“DentCare Dental laboratory is our key partner in making our patients highly satisfied which has also played a key role in our clinical success.”



**Dr. Saurabh Gupta**  
Consultant Oral and  
Maxillofacial Surgeon and  
Implantologist  
Bengaluru, Karnataka, India

W

we have a regular and increased flow of patients who come to us with an anticipation of exceptional quality and beautiful guaranteed restorations. Exquisite characterization, quality fit and colour are the key aspects that make our patients highly delighted with a new smile.

DentCare Dental laboratory is our key partner in making our patients highly satisfied which has also played a key role in our clinical success. DentCare is a great partner with excellent and instant communication.

Collaborating with their expertise means our results are outstanding. Excellent esthetics and fit, contacts and occlusion make my life as a clinician much easier and have resulted in an enhanced patient satisfaction.

My deep gratitude and thanks goes to DentCare Dental Laboratory and all those over the many years who have worked so hard to help give beautiful smiles to my patients.





# DENTCARE: PRODUCT OVERVIEW

DENTCARE  
Zirconia

DENTCARE  
Clear Aligner

Implant  
Prosthesis

DENTCARE  
Nova

BPS Dentures

PEEK

Precision  
Attachment

DENTCARE  
Flex



## PRODUCTS

### DentCare Zirconia

Our own branded metal-free prosthesis using German medical grade Zirconia and technology

---

### DentCare Clear Aligner

A Series of transparent aligners to re-align teeth

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### DentCare Flex

Aesthetically superior semi-flexible removable partial denture

---

### DentCare Luminers

Veneers for teeth with no preparation or minimal preparation

---



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

Over the past 29 years, Dentcare has dedicated itself in contributing to healthy, confident smiles for over 25 million patients and has added the delightful value to more than 25 thousand dentists around the globe.

The range of services DentCare offers is unique and comprehensive; its product portfolio comprises individual dental Crowns and Bridges to 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.

### A Glance at DentCare's Array of Products

#### DentCare Zirconia

The paradigm shift in dentistry for life-like 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 Prosthesis.**

**DentCare Zirconia** is biomedical grade Zirconia made in Germany. Available in ten 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 Nova

DentCare Nova is India's leading Branded Porcelain Fused to Metal (PFM). Pure Cobalt-Chromium (Co-Cr) alloy, which is highly bio-compatible and completely free from Nickel and Beryllium is used for its fabrication. The very best ceramic material is used for creating tooth-like appearance which makes DentCare Nova truly natural looking for aesthetics and strong for functionality.

DentCare Nova is available in ceramic facing and full metal options also.

#### Benefits

- High strength
- Natural aesthetics
- Pure Cobalt-Chromium (Co-Cr) alloy, completely free from Nickel and Beryllium

### 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 spend 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.

### DentCare Flex

DentCare Flex is an aesthetically superior semi-flexible removable partial denture which blends perfectly with the natural gum tissue providing better looks, function and comfort.

#### Benefits

- Aesthetically superior removable partial 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 acrylics
- Monomer-free and manufactured using Injection Moulding system
- Suitable for combination options (with Cast Partial)

Available in three different shades-soft pink, dark pink and intense pink.



### Direct Metal Laser Sintering (DMLS)

Direct Metal Laser Sintering (DMLS) is a certified system for the additive manufacturing of new generation Porcelain Fused to Metal (PFMs) using imported Laser Sintering Machines from EOS, Germany.

In this system, Computer Aided Designing/Computer Aided Manufacturing (CAD/CAM) is being used to produce metal frames by sintering highly biocompatible Cobalt-Chromium (Co-Cr) powder layer by layer. DentCare uses only CE certified alloy powder directly imported from the manufacturer.

Direct Metal Laser Sintering fulfils stringent requirements of strength and stiffness, corrosion resistance and process accuracy for dental prostheses, particularly those requiring high precision as in the case of Dental Implants.

### PEEK

Polyether ether ketone (PEEK) is a high-performance polymer which has been proven successful in many areas of medicine. Whether a patient's prostheses are permanent, removable or screw-retained, PEEK is an innovative, premium prosthetic solution.

This semi-crystalline, high-performance composite is also gaining an ever-increasing number of users in dentistry due to its remarkable properties. This material is bioinert, tissue-compatible, non-cytotoxic, electrically

non-conductive and thermally insulating with very good mechanical properties, high temperature stability and outstanding chemical resistance. The chemical resistance of PEEK prevents it from being attacked by saliva; there is no reaction intra orally.

### Precision Attachments

DentCare Dental Lab offers Precision Attachments—a treatment modality which permits the flexibility of having a fixed removable prosthodontic end result. This caters to the pressing demands of clinical situations wherein a completely fixed prosthodontic option is practically unfeasible.

The patient can thus opt for a prosthesis that would be generous in accommodating their requirement of having a “fixed” replacement, yet providing the dentist with the comfort of not compromising on the eventual treatment outcomes. Precision Attachments are an additional tool that can add to the smiles of a population that is growing in age and opting for lasting solutions to their dental health.



### Dental Implant Prosthetics

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)
- ❑ PEEK (Milled) with light cure composite – manufactured using CAD / CAM technology

#### **DentCare Luminers**

DentCare Luminers are veneers made by DentCare Dental Lab for teeth with no preparation or only minimal preparation. DentCare Luminers can be extremely thin compared to traditional veneers and are bonded to the tooth surface. With DentCare Luminers, sensitive removal of the tooth structure can be reduced and in selected cases even avoided for certain non- or minimally-invasive smile enhancement treatment plans.

#### **Benefits**

- ❑ Vibrant and natural looking aesthetics
- ❑ Durable
- ❑ No or minimal tooth preparation is required

#### **Other Prominent Products from DentCare**

- ❑ Cercon (Degudent)
- ❑ IPS e.max (Ivoclar Vivadent)
- ❑ Procera (Nobel Biocare)
- ❑ Zenostar (Ivoclar Vivadent)
- ❑ Playsafe Triple Sports Mouth Guard
- ❑ Silensor-SI
- ❑ Cast partial denture (CPD)
- ❑ BPS Dentures
- ❑ Acrylic Removable Complete and Partial Dentures
- ❑ Valplast
- ❑ Bio Dentaplast

#### **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 consequence 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.

**Smile confidently, go for DentCare prostheses**

World-class products are the consequence 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.





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**6<sup>th</sup> International Academy of Ceramic Implantology World Congress**  
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[www.pdconf.com](http://www.pdconf.com)

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