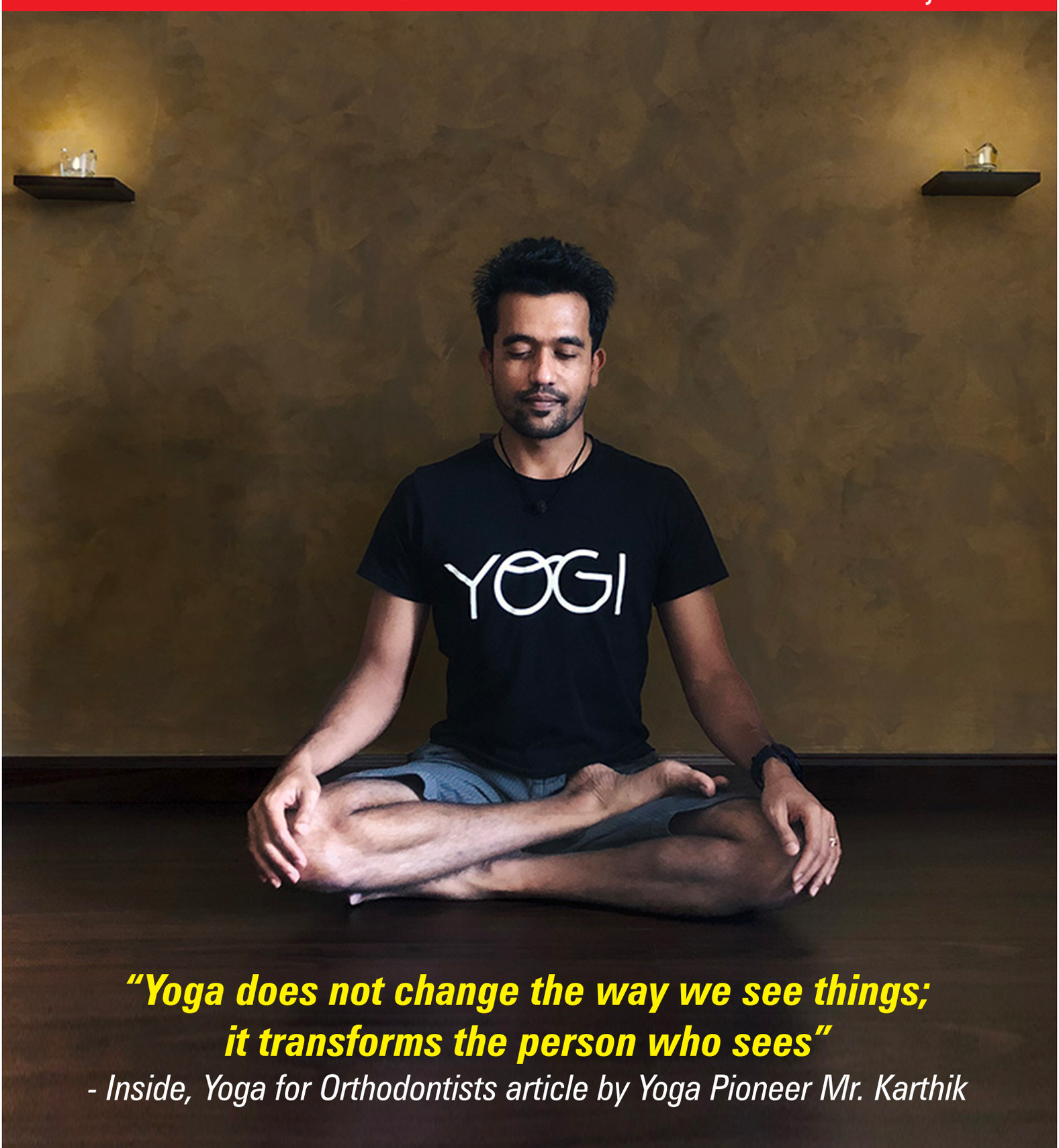
July 2020 | Volume 21 | Issue 8

IOS Times

-As Covered By the New Editorial Committee-

The Official News Letter of Indian Orthodontic Society



"Yoga does not change the way we see things; it transforms the person who sees"

- Inside, Yoga for Orthodontists article by Yoga Pioneer Mr. Karthik

President's Message

Respected IOS Members,

Finally some good news in the fight against Covid-19, the race for an indigenous vaccine against the novel coronavirus is on in earnest. With multiple companies at advance stages of human trial and hopefully by December we can expect the vaccine to hit the market, something to cheer about in these difficult times.

JIOS the pride of IOS has been the focus of attention and has undergone a major change in its structure and presentation, has now authorship representation spanning 15 countries in the past year itself and its editorial board has members of over 20 nationalities, having a pan global representation and has truly become an international journal. The Journal has also decided to implement an open data policy to increase transparency of the research data published in the same. With immense contributions from the past editors and the efforts of the present editor the journal has now been included in the EBSCO database and having cleared all the hurdles, is in it's final stages in the process of applying for Pub MedCentral, Scopus and ESCI indexing, a long pending dream of every member of the society.

As a testimony to its growing readership, the journal has already received over 300 manuscripts by July itself. I am sure under the reigns of Editor Dr Punnet Batra the journal shall attain greater global recognition and shall be the jewel in the crown of IOS.

Public awareness the key to promoting the speciality of Orthodontics got a boost with the commissioning of the all new sitewww.bracesspecialist.com. An exclusive site for addressing all patient queries on orthodontic treatment, types of treatment, supported by an archive of data collected over the years, celebrity interviews and public awareness videos, appreciate the efforts of Dr Gaurav Gupta in collating and accomplishing the given task to perfection.

An EOGM on virtual digital platform has been scheduled on 30th August 2020, subsequent to the referendum, with an agenda of passing the accounts of FY 2019-20 as mandated by Sub Registrar's Office at Vellore, and seeking approval to rescheduling the 55th IOC at Amritsar to June/July 2021, respecting the prevailing uncertain conditions and abiding by the rules and advisory from local authorities and State Governments. Consequently the 25th PGSC and 56th IOC are also rescheduled to subsequent year.

Let us spread the message of hope and promote our beautiful profession to the people as Orthodontics practice being safe and people should not have any apprehension, as we are following all protective protocols. To install confidence amongst people and revive the practice so that normalcy returns. Lets pledge to protect ourselves and our patients and work towards promoting our profession to its past glory.

Please take care and stay safe,

Jai IOS

Dr Silju Mathew
President IOS

Hon. Secretary's Message

Respected Members of the IOS,

I hope this issue of IOS times finds you in good health and coping well with the pandemic and the adjustments we have all had to make with our lives.

The month of July has seen some major strides made by the IOS.

IOS CARE

IOS care is a programme launched as a gesture of good will and involves the IOS paying a certain sum of money to the family of a member that we may unfortunately lose. This is proposed as a gesture of good will from IOS and does not involve any contribution from the members .However it is mandatory for members to register for this to avail of this benefit.A special section has been created on the website for this purpose and we request all members to visit the website www.iosweb.net and update your details and register for IOS CARE.

OS RESEARCH FOUNDATION

For the first time, IOS invited preliminary applications for three grants .IOS RF 3M Unitek grant , IOS RF lingual orthodontic society grant and IOS RF – Dr. C. Padmalatha memorial grant for research. A gratifying no. of applications were received from life and student members and an expert panel have scruitinized these applications and a few selected applications were shortlisted . The final applications are invited from the selected members by August 31st.

EOGM scheduled for 30th August

A referendum was sent to IOS members on July 2nd and based on the response , a virtual Extraordinary general body meeting has been scheduled on 30th August .The notice and the agenda for the EOGM has been sent to all members and I hope we can all meet in virtual mode to help take some important decisions.The fourth meeting of the executive committee is also scheduled on 29th August on virtual mode.

As new post graduates join MDS courses across the country, we also have more programmes coming up to ease them into their program me. A PG orientation program me is planned for September by Sharad Pawar dental college on 25th and 26th September. We request Heads of departments and teachers to encourage their students to become members of the Indian Orthodontic Society.Other programmes for Life members are also in the pipeline and we look forward to August and the subsequent months being rather busy.

Stay Safe , Stay Well and in good cheer!
Jai Hind,Jai IOS.

Dr. Sridevi Padmanabhan
Hon. Secretary, IOS

Editor's Message

Dear members of Indian Orthodontic Society,

This is the 4th issue of IOS Times under the CoViD-19 lockdown and isolation. Somehow our editorial team has well adapted to the change in life style and virtual activities. As ever, our editorial team had performed to perfection for this July Issue too.

Under this CoViD19 pandemic, its important that we spend time to improve and improvise our physical and mental health. We need to rejuvenate and rehabilitate our overall health, very importantly during this crisis while. Pumping our immunity seems to be the need of the hour. So our editorial team reached Mr Karthik, Yoga expert and pioneer to educate our members on practicing Yoga for not just combating the pandemic, also to practice for balancing our professional hazard as an Orthodontic service provider. Karthik has delivered an excellent article on " Yoga for Orthodontist ", a must read and to be practiced, for our members.

We are proud to cover an interesting interview of our member Dr Issa Fathima Jasmine, Orthodontist, Philanthropist, Social Worker.

She shares her experience and her journey, towards social services and charity work through her NGO. She has been doing a commendable job, especially during the CoViD-19 Pandemic crisis for poor. We believe that this coverage would inspire many more of our members to pursue her footsteps. IOS Times is looking forward to publish more such godly work done by our members. So please approach our editorial team, if you come across suchgenerous activities by our members. We are eager to highlight them.

IOS Times invited Student Members to contribute articles on the following two topics from the Previous issue (June 2020 Issue)

1. How to make the Best use of COVID Lockdown period to cope with Orthodontic Curriculum
2. Establishing " New Normality" as we return to Department

The response was huge with 54 teams submitting 84 articles, from various colleges across the country.Our editorial team short-listed these contributions as two1st, two 2nd& two 3rd best submissions from the above-mentioned two topics. We are publishing the two2ndst best articles in this July Issue. 3rd best articles shall be published in August issue. IOS Times appreciate every Student member who participated. Considering the huge volume of submissions we regret to state that, only the 12 Best out of 84 articles could be published. We are opening more such forums in the future for our Student members and we expect you to participate with this same enthusiasm. In future, publication of fresh contributors shall be given preference.

Hope our Members enjoy this July Issue of IOS Times

Stay Safe, stay Happy and let us pray for the affected to recover fast and normality to resume soon.

Jai IOS, Jai Hind

Dr. M. S. Kannan
Editior,
IOS Times

From the Office of The Hon. Secretary

STEPS FOR ENROLMENT TO THE SCHEME

- Login to IOS Website www.iosweb.net
- Update your member profile (Mandatory step) before proceeding to IOS CARE.
- (Registration process to IOS CARE will not progress without completing this mandatory step.)
- Click on "IOS CARE "tab on Home Page
- Duly fill all the details page by page
- Preview your application and submit
- Contact memberbenefit@iosweb.net for more details.

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Indian Orthodontic Society

PRESIDENT
Dr. SILJU MATHEW

HON SECRETARY
Dr. SRIDEVI PADMANABHAN

IOS CARE

A Life Endowment Programme

Indian Orthodontic Society was started in the year 1965 with an important objective of promoting and safeguarding the interests of the orthodontists in India. Over the years, the Management Committee of the IOS has put a lot of thought and effort in this direction. Thus , the 'Member Benefit Programme 'of IOS (MBP-IOS) was established . **IOS CARE** is a programme proposed by the MBP Committee and the Executive Committee of 2018-19 in the interests of the members of the IOS. The proposal was approved by the 54th AGM, Bhubaneswar and is permissible as per Section 25 (2) of the Tamilnadu society's act 1975 under which the IOS is registered. The details of the programme and application process are enclosed.

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25, Seru Munusamy Mudaliar Street,
Velapadi, Vellore.

Registered with registrar of societies act, Vellore vide no. 75 of 1992

By Bangalore Orthodontic Study Group

As Reported by Section Editor : Dr Sandeep Singh

An International audience at the global webinar by Dr Sumit Yadav, Connecticut University USA, Hosted By Dr Anup Belludi (Convenor BOSG, Bangalore & Co hosted by Dr Sujala & Dr Priyanka)

The Webinar gave an amazing insight into clinical research on arch expansion. It was interactive session & valuable inputs were given by Prof.Dr NR Krishnaswamy.The Program was a great learning and enriching experience for all IOS members.

Study Group Activity

Ormco
CONTINUING EDUCATION

THE art OF A GREAT SMILE

Dr Bader Borgan
UK

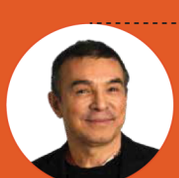
Creating Celebrity Smile in Vertical Discrepancies using PSL & Digital Smile Design.

Dr Ajit Kalia
India

Digital Marketing in Orthodontic Practice: a Cardinal Step to Grow Your Practice.

Dr Chang-Ok Oh
South Korea

Lingual Straight Wire and Passive Self - Ligation system, ALIAS. Why & How?



Dr Skander Ellouze
Tunisia

TADs: The Permanent Revolution

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Interviewed By
Dr Kannan &
Dr Kavitha

Not all of us can do great things,
but we can do small things with great love!
- Mother Teresa

The Inspiring Journey of IOS Member

Dr. Issa Fathima Jasmine M.

Orthodontist, Humanitarian, Social Worker

Dr. Issa Fathima Jasmine's academic proficiency states that she is an Orthodontist, but what we happened to encounter was a lot more than that. Behind the calm and collected persona, lies a lot more that we chanced upon as the interview progressed. She is an epitome of simplicity and humility. She has played a pivotal role in the lives of hundreds of individuals and continues to change the lives of so many for good. The flare to pursue such a philanthropic journey is evident in the way she carries herself, with a smile so bright and an aura so graceful. Let us plunge into this part of her journey.

Tell me about yourself, Dr Issa…

I'm Dr. Issa Fathima Jasmine, an Orthodontist, based out of Chennai. I had been an Assistant Professor for four years, teaching dental graduates while practicing Orthodontics. But, I had always wanted to be an entrepreneur. When the idea struck me hard, I wanted to make my dream come true. So, I opened a retail outlet for Indian Ethnic wear and ran it successfully for three years before embarking on my next journey.

With an ardour for administrative tasks and the programs and processes related to people, currently, I head the Director - Human Capital position for an ERP company based in India and Middle-East.

When you begin to take action to bring awareness to the causes you care about, you become an activist in the process. Being a dedicated social worker never came out of chance but circumstances. Realizing the plight of starvation amidst the underprivileged and the humongous amount of food that goes to waste every day, it stirred a great deal of guilt within me. Hence, I decided that the next chapter of my life would be related to the rectification of this - that was to install public fridges where excess food can be shelved and that would eventually feed a few hungry stomachs.

I continue to live the entrepreneurial dream. I'm now on a new venture and constantly figuring out ways to bring them into existence. Life is fast-paced and thinking what to do next keeps me on my feet.

How did you get motivated in social service and what was the spark which ignited you?

I had the habit of sharing my meals with people around me ever since I was a kid. This slowly escalated to distributing food to the underprivileged in my locality. There was an old lady I used to regularly hand over excess food from my kitchen, but after her demise, there was no one I could give the meal to. That led to the inception of The Public Foundation - a not for profit enterprise, installing public fridges to re-distribute excess food.

Mahatma Gandhi has once said, "If God was to appear in front of the poor, he would always take the form of food". That is how much hunger could impact one, I felt.

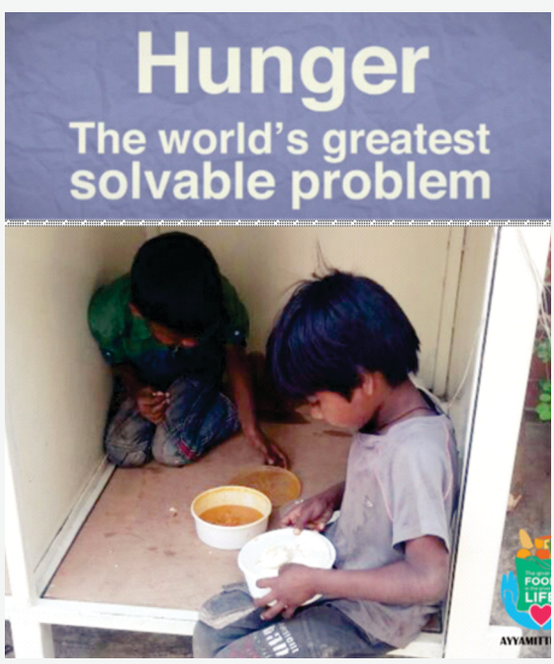
How did you come up with this unique name for your project?

The name “AyyamittuUnn” was inspired by the one-line poem from the collection Aathichoodi, written by the Tamil legend Avvaiyar. It means “offer your food to others around you before eating it yourself.” I think the name was apt, you have to tell me if it is…

What exactly does the AyyamittuUnn project do?

The idea is to leave a refrigerator in public and people can drop good-to-eat meals in them and anyone hungry can take food from it. Instructions are hoarded with Dos and Don’ts on the unit. We are very particular about the food that is left in the units. We maintain strict quality and hygiene standards.

We have active security guards in place who ensure the safety of the equipment and the food items in the refrigerator. We label the food with the date of cooking & best before dates. We have managed to uphold the quality standards which has helped us to maintain the level of work.



On one side of the fridge, there is a provision to leave hand-me-down items like books, clothes, shoes, and other items that could be used by people. We follow the same quality checks for those items too.

Could you share the challenges you faced when you established this amazing project?

It has not been a bed of roses, is all that I can say. My friends and family thought I was too young back then to start such an initiative and was advised to set up my clinical practice. But seeing on how food wastage occurs every day at our households, I was determined to do this despite the criticism. After looking around for 4 months, I found the spot in Besant Nagar and launched the project successfully in August 2017. The biggest challenge was convincing my folks at home, finding the location to place the fridge, and maintaining the quality standards of AyyamittuUnn and gaining approval from the corporation.

Who was your greatest inspiration?

Necessity is the mother of invention. I just figured the need for this venture and brought it into action. I would rather say it was a necessity that inspired me to start this.

I would like to share an incident. Just around the time of the inauguration of the first unit, as I was doing the trial run and that is when an elderly person approached me and asked me what we were up to. I explained the idea behind the project, only to be left with glances that didn’t convey the right meaning to me. He thought I was installing a refrigerator for the marathon runners. He soon left the place and only to return after a while with a lot of fruits and vegetables to be placed inside the refrigerator. I told him that I intend to open the fridge the next day and today was just a trial run. He said "You don't have to look out for a good day or a good time when you intend to good deeds" and he was the first contributor to AyyamittuUnn. This made me feel overwhelmed and fuelled the grit to pursue further. I consider this a divine blessing.

How do you find this journey progressing from 2017 to 2020?

We have gotten far from where we started. My team and I believe that a journey of a thousand miles starts with a single step. We currently have nine active refrigerators across Chennai & Bangalore city. I am certain that this project has reduced the amount of food that goes to waste daily.

How do you enjoy being a social worker?

I love what I am doing. Ayyamittu Un is touching innumerable lives in the city. Another incident that moved me greatly was when a call taxi driver who was new to Chennai and was rendered penniless due to his circumstances. Perished by the battering heat, he happened to cross our fridge and picked up a bottle of water from it. That bottle of water mattered so much to him as he was able to quench his thirst. Shortly after, he gave me a call and thanked me for it and addressed me as his "mother". I think these are the moments that leave a smile on one's face and a sense of selflessness and worthy accomplishment.

What traction have you created?

We have rescued perishable food items worth 2.6 Crores that would have otherwise gone to the bin. About 86.3 metric tonnes of clothes, 1.6 metric tonnes of toys and 1700 pairs of shoes have reached the ones in need so far.

With about nine active refrigeration units, we feed close to 100 - 120 people every day per fridge in Chennai and Bangalore. This initiative has significantly changed the mindset of many that access these units. Be it an individual dropping food, or the one taking a meal from the unit. Both of them leave with a sense of gratitude and satisfaction. This project also instills hope in the minds of the ones that they aren't alone in this world and there are people to take care of them.

Is the community fridge concept still functioning or have you had to curb services given the need for social distancing and sanitization?

We have currently closed the community fridges owing to the Covid-19 infection spread. We will resume operations shortly ensuring strict adherence to quality and social distancing standards have been maintained.

How have you reached out to the needy and marginalized during this period?

There was only one vision – to save the lives of those that would otherwise succumb to the cruelty of starvation and also to educate them on the awareness about the pandemic. The first point is more pressing, but the second has crucial long-term effects. So, we began cooking daily meals for them by using an existing commercial kitchen. Apart from the meals, we also ensured there was an adequate

supply of packaged drinking water. I didn't want to request a lot of volunteers to come forward due to the contagious nature of the virus. We prepared the meals with the utmost care and by following the WHO safety guidelines with strict focus.

A lot of people reading this will want to be a part of this…how could they proceed?

If you are interested to set up a community fridge in your locality, you may reach us on +91 9884466228 or email us at info@thepublicfoundation.org. You will enjoy being a volunteer here as you will be able to see SMILES in many needy persons by your service. You're doing more than just filling their bellies. You are the real-life Superman in the lives of all the people you are going to help. You can look for our updates at facebook.com / the public foundation and instagram.com / the public foundation.

What do you do in your spare time?

I'm an avid fan of networking. I like to meet people, form new connections, and learn new skills. I believe that in today's fast-paced world, one needs to be updated and skilled to handle all sorts of tasks. In the time I can spare, I spend a lot of it with the kids in my community, checking for travel deals, designing spaces that bring in a lot of positive vibes, pumping iron in the gym or driving with the windows rolled down on the East Coast Road, accompanied by scintillating music.

I believe the creative bug bit me very early. To keep both sides of my brain functioning effectively, I recently started doodling. I've been posting my work on my Instagram handle too! You can check them out on @issafathimajasmine.

Your piece of advice for the upcoming generation?

Don't compare yourself to anyone. Instead, focus on getting better at what you do. Like the quote said, "The only person you should try to be better than, is the person you were yesterday."

Go ahead, challenge yourself, be the best version of yourself, and be limitless!

Quickfire Questions:

a. Are you a leader or a follower? Leader.

b. Which part of your life would alter if you had the chance to? My high school days. Would have chosen business subjects.

c. If you were to write a book about yourself, how would you name it? I am the owner of my life.

d. Which chapter of Ortho do you hate the most? Bonding.

e. What do you love the most? Teaching.

f. People would be surprised if they knew? That I am very naughty.

g. What is your biggest strength? Empathy.

h. What is your biggest weakness? Empathy. It's a double-edged sword.

i. What are you learning new? Learning to play drums.

j. Name someone who inspires you? Why? Elon Musk. His determination, futuristic approach towards business, his unwillingness to take no for an answer, ability to learn subjects very deeply.

If you would like to share your comments or wishes, you can reach her at : https://linktr.ee/issafathimajasmine

YOGA

for

Orthodontists

brought to you by

Indian Orthodontic Society

Orthdontists face unique physical, mental, and emotional challenges each day. These challenges can create discord and imbalance, especially when they're combined. Contorting our bodies in order to gain better visibility, sitting for long periods, and even hunching over our computer keyboards can put enormous strain on our musculoskeletal systems. Dealing with fearful patients, uncooperative team members, and the frustrations of running a small business can sometimes become overwhelming and lead to powerful feelings of anxiety, anger, and even depression. Numerous coping strategies are available. One ancient remedy is my favorite and can help alleviate the detrimental effects of these varied stressors. That remedy is the practice of yoga.

With the prevailing Covid-19 Pandemic, its important that we- The Orthodontists boost our immunity, strength, stamina, endurance and our systemic conditions.

Indian Orthodontic Society, thanks and appreciate Yoga Guru and Pioneer Mr. Karthik who has written this Excellent article for the Orthodontic fraternity

About Karthik..

Karthik is a certified yoga teacher with over 10 years of teaching experience in India and in Dubai. He is currently teaching theclassical forms of yoga in Dubai.

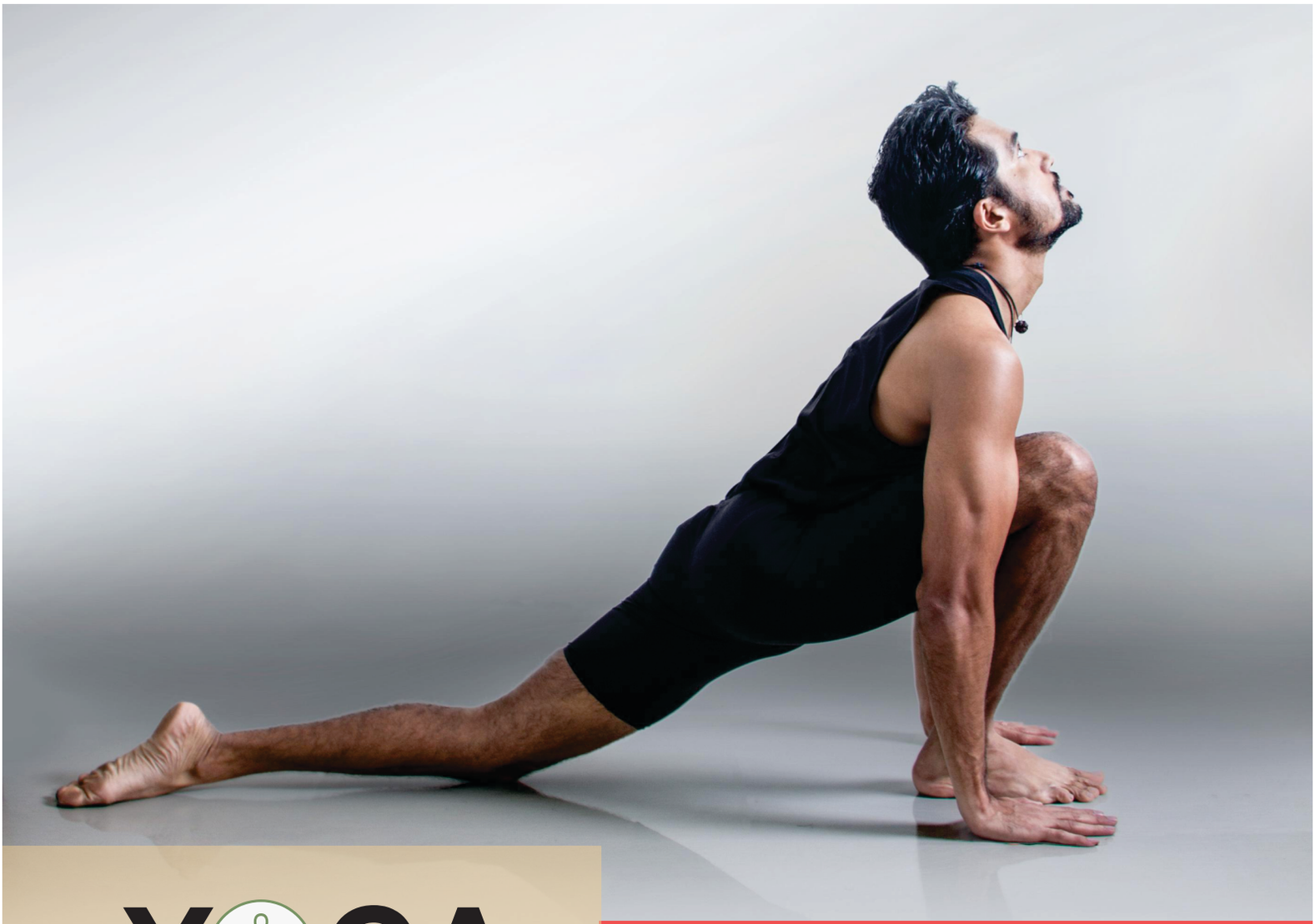
Karthik was born and brought up in Chennai, South of India, a place where yoga is still practiced most authentically without distortion. Though Karthik started his career as an artist, working for animation & movie visual effects, turned a yoga teacher for the love of the subject, which is an ocean, practiced under the guidance of 4 different teachers and different styles at different times. A firm believer that 'Knowledge should come from different sources. If it came from the same source, itbecomes stiff and stale'.

Karthik aims to focus on the health aspects of his students, understanding the limitations and possibilities and move towards the spiritual aspects of the yoga practice, preserving the values and essence of classical yoga without distortion from its purpose, and incorporating these in every session. In a world where yoga is distorted so much from its purpose, he feels it is his responsibility as a teacher to teach the subject as it is, with a hope that truth will triumph.

He started his training by learning the integral style of yoga from his first teacher a long time ago for many years, eventually had an opportunity to practice Ashtanga yoga under the guidance of Sri SharathJois in Mysore & Sri. Ravi and Sri.Srimathi in Chennai, India. He practices not only the asana part of yoga but also pranayama and dharana. He is certified from Sivananda Yoga Vedanta Meenakshi Ashram, Madurai. Later at the beginning of 2018, he graduated in Advanced teacher training certification learning VinyasaKrama taught by revered Sri. Srivatsa Ramaswami. He was a student of Sri. Krishnamacharya for over 30 years and is known for the purity of his teaching. Currently, he teaches Ashtanga yoga, VinyasaKrama (as taught by Sri. Srivatsa Ramaswamy) and classical Hatha yoga and therapy sessions focusing on alignment, breath, and dristi. Therapy sessions are taken on one on one basis.

Karthik quotes "the strength of a teacher is not in his teaching but the willingness to be a student." He loves to pass on the little knowledge that he had gained in his journey in the path of yoga continues to be a student at the same time. He has been teaching since 2010. He has shown an avid interest in Ayurveda, one of the ancient science of life. In his class, he integrates the two ancient knowledge into one. Necessary advice on diet, lifestyle, and proper exercise are given to individuals who need special assistance.

Instagram: @karthikhimself
Website: www.yogawithkarthik.com
Photo venue: Ananda Yoga center, Dubai, UAE



YOGA FOR ORTHODONTISTS

We all strive to find happiness, comfort, and to be able to provide for our family and chase our hopes and dreams. We find a profession that suits best for us. Even the best profession is not free from hazards, no matter how enjoyable it is. The hazard that does not manifest from outside in the form of external danger but that builds up from within over time. It takes decades for the symptoms to surface. We call it an occupational hazard. Almost all occupation is prone to this.

In this article, we will focus on a particular group of people whose contribution to society is unparalleled in medical procedures. Orthodontists and surgeons play an important role in our health system. May it be about cosmetic surgery or a life-saving heart procedure. Although they have an enormous amount of knowledge in their field of profession, sometimes their profession demands to tackle the situations in certain ways. Most of the time without any alternatives. Orthodontists and surgeons have to perform their tasks to their best for the best result for the patience. And their duties cannot be compromised. Sometimes even bathroom breaks are limited during a procedure. Such situations add physical and mental stress. Not to mention physiological stress. Eventually resulting in compromising on the immunity and degeneration. In the hope for the best result on the

patient's most of the professionals compromise their own health. Unless one leads a physically active life outside of the profession they become victims of occupational hazards.

I have personally known a few surgeons who have undergone spinal procedures, knee replacements, suffer from cervical spondylosis, frozen shoulders, etc., after years and years of bad postures. In this article, we will deal with addressing the health issues which are commonly faced by Orthodontists.

The Human body is designed to be moved almost all the time. The need to move is greatly reduced due to advancements in technology and lifestyle. Especially in recent times, we live in fear of going out due to the pandemic situation. We are forced to stay indoors most of the time, and even sunlight on our skin is scarce. The current situation encourages a sedentary lifestyle. But we have a choice to make the best of this time. One does not have to go to the gym or walk/run a mile outside outdoors to be physically fit. This is when our ancient science of yoga comes into play. For practicing yoga you do not require any special pieces of equipment or a place. All you will need is a yoga mat. If that is not available, a towel or a bed sheet can be a good substitute.

The most common issues orthodontists face are forward head carriage, neck pain, cervical spondylosis, cervical degeneration, frozen shoulders, shallow breathing, lower back pain, varicose vein, tired legs, compromised immunity, and mental stress. Yoga offers a variety of movements and exercises that addresses all the above conditions. The body starts to heal when one gives enough movement and proper nourishment to the body. Yoga helps in preventing the above from happening by strengthening the muscles, joints, tissues, and stimulating all the visceral organs and glands that are responsible for keeping the body in a state of homeostasis. There are practices like Surya namaskar (sun salutation), which literally means to salute the sun, keep the joints well lubricated, strengthens the muscles, removes the toxins out of the system through breath and sweat. Most importantly it strengthensthe nervous system and keeping the central nervous system calm resulting in reduced mental stress. Reduced mental stress means more focus and less fatigue. Practice such as yoga nidra (yogic sleep), and viparita Karani (leg up the wall) being a passive pose helps to relax all the muscles and the central nervous system. Yoga has proven to be time tested practice that is well known for its physical, mental, emotional, and spiritual benefits. The benefit of yoga includes :-

1. An increase in the mobility of the joints
2. Protectsthe spine
3. Cleanses accumulated toxinsfrom the system
4. Increased lung capacity
5. Better digestion, absorption, and eliminations
6. Preventsinjuries
7. Increased energy level
8. Clarity in thoughts
9. Helpful in both astherapy and aswell as a preventive method
10. Increase in blood flowto the organs
11. Boostsimmune system functionality
12. Balances endocrine glands etc

The following are some of the basic yogic movementsthat addressesthe issues mentioned previously.

Yoga is a spine centric practice. It issaid that the health of a person is determined by the health of his/herspine.

PREPARATION

To practice yoga, one does not need an expensive piece of equipment. However, a yoga mat helps. If that is not immediately available substitute with a towel or bed sheet can suffice. A yoga mat is advised because it provides a good grip and a good sense of balance. Psychologically, it gives a sense of security when the feet and palms are firmly anchored on the mat during the practice. People with severe knee issues may sit on a chair for neck, shoulder, and spinal movements. And some may have to avoid poses and movements that put too much pressure on the knees.

These exercises are best done empty stomach and in the morning. If time does not permit to practice in the morning then in the evening sometime during the sunset. It is advised to practice in an empty stomach or at least 3 to 4 hours after a meal.

The following exercises help prevent the degeneration of the vertebrae. Degeneration occurs when part of the spine and joints does not get enough movement and the muscles supporting them becomes weak either because of overuse or under use and undernourished. The spine gets its nutrition only through movements. The activity of the brain is determined by the activity in the spine. Different parts of the spine have different functions, for example, the lumbar spine is designed to bend forward, backward, and lateral movements whereas the thoracic spine is restricted to such movements because of the rib cage attached to the spine. However, the thoracic spine is capable of twisting movements. The range of movement to the Cervical spine is broader. The cervical spine is capable of almost all movements such as forward and backward movements, lateral movements, and also twisting movements. Therefore it is important to keep our spine moving in all axis possible.

The sequence given below is arranged as follows.

1. Neck movements
2. Shoulder rotation
3. Thoracicspine movement
4. Spine strengthening movement
5. Twists
6. Full body movement
7. Relaxation

NECK EXERCISES

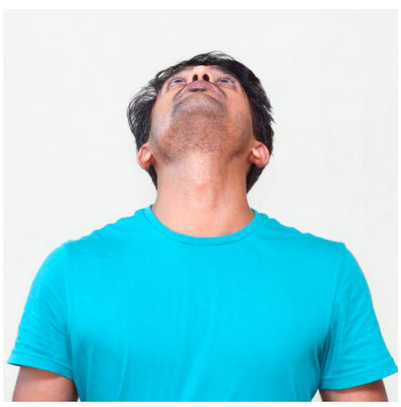
We tend to hold a lot of stress relating to responsibility around our neck and shoulder area. The stress can be due to responsibility such as family, career, duties, and everything related. Such mental stress accumulates in these areas. We subconsciously shrug ours shoulders and tense the neck almost all the time in most cases.

The following exercises help consciously relax the neck and shoulders allowing plenty of oxygenated blood to flow to the cranium. This gives more clarity and a sudden burst of energy. The blood flow to the facial muscles helps in lively expressions on the face, clarity in thoughts, receptivity, and clear perceptions.

STEPS

1. Sit in a comfortable cross-legged position, with your palms resting on your knees or thighs. Try to keep your spine erect and back straight. Relax the shoulders allowing the shoulders to drop. Keep the neck area relaxed. Bring the chin parallel to the floor.
2. Keep the abdomen relaxed allowing the breath to reach down to your lungs.
3. Spend a couple of minutes taking slow, deep, and rhythmic breaths. During this time check if you are holding any tensions in your body. If so consciously relax those groups of muscles. This is the starting position for the next few exercises.

UP & DOWN MOVEMENT



1. As you inhale lift the chin as high as possible, looking up to the ceiling. You should be feeling a nice stretch to the skin at the throat.
2. As you exhale bring the chin done to the pit of the throat. Apply gentle pressure at the chest. It is normal to feel a gentle choking sensation.
3. Repeat this for 5 times slowly syncing the breath with the movement.
4. After the 5th time stay in each position for few breaths.
5. Return to starting position and take a few deep breaths and observe the sensations.

LATERAL MOVEMENT

1. From the starting position, as you exhale bring your left ear closer to the left shoulder. Feel a nice stretch to the right side of the neck.
2. Inhale back to starting position.
3. Exhale bring the right ear to the right shoulder.
4. Repeat this for 5 times in sync with the breath.
5. Return to starting position and observe the sensations

SIDE TO SIDE

1. From the starting position, as you exhale turn your head to the left side. Try to bring the chin as close as possible to the left shoulder. Pause for a moment.
2. Inhale back to the starting position.
3. Exhale turn your head to the right side. Pause for a moment.
4. Repeat 5 times.
5. Inhale back to starting position and observe the sensations.

NECK ROTATION

Note: If you are suffering from cervicalspondylosisit is best to avoid this movement.

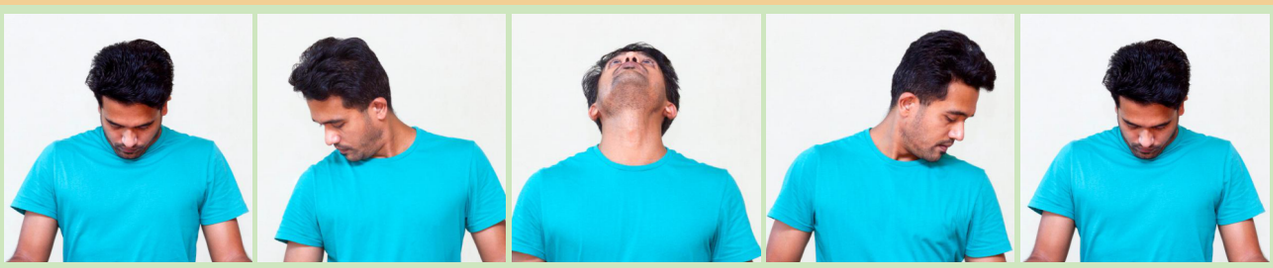
This exercise moves the neck in all different directions. It is advised to do it very slowly either syncing with the breath or by breathing normally. Take about10 to 15 seconds for each rotation. Be mindful of each and every area of the neck. If there is a sharp pain in any position slowly come out of that position and relax.

From the starting position, as you exhale bring the chin to the pit of your throat and give a gentle squeeze. This is the starting position. By now you will be feeling a nice stretch to the back of the neck.

As you inhale turn your head to the right side and continue lifting the head and look up.

As you exhale move your head to the left side and bring back to the starting position.

Repeat 3 times very slowly. This is counter clock rotation.



SHOULDER MOVEMENTS

Stiff shoulders can limit the range of expressions on the face. A drooping shoulder can also lead to forwarding head carriage putting an enormous amount of pressure on the neck muscles and the trapezius muscles to hold the head up. In the long run, it can lead to hunched back, frozen shoulders, and decreased lung capacity. In order to avoid the long term effects, it is important to keep our sternocleidomastoid and trapezius strong and yet allowing the full range of movement to the shoulder and neck. These two muscles are also responsible for stimulating the vagus nerve and the thyroid gland.

CIRCULAR MOVEMENT

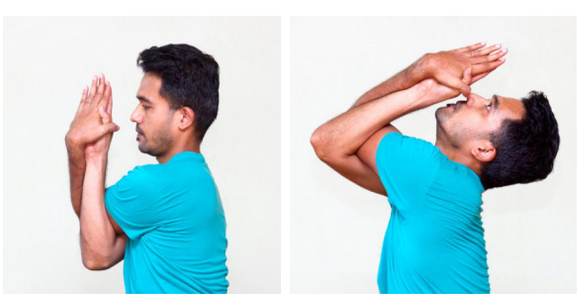
1. Sitting in the starting position, inhale deep.
2. As you exhale bring both the shoulders forward. This is will create more space between the shoulder blades(scapula) at the back. Feel a nice stretch at the back.
3. Continue exhaling, shrug the shoulders closer to the ears. Lift the shoulders as high as possible.
4. Inhale take the shoulders back bringing the shoulder blades as close as possible to each other. Give a gentle squeeze at the back. This will open the chest area.
5. Continue inhaling, bring the shoulders down to the starting position.
6. Repeat 5 to 6 times mindfully.
7. Repeat in the reverse direction 5 to 6 times.

SHOULDER SHRUGS

1. Sitting in the starting position, inhale deep, shrug the shoulders close to the ears. Hold for a few seconds holding the breath.
2. As you exhale quickly, drop the shoulders as though there is no life in it.
3. Repeat this 5 times.

This releases a lot of tension to the neck and shoulders and the energy level increases drastically.

REVERSE PRAYER



1. From the starting position, quickly cross your arms so that the right arms is one on top of the left arm and the forearms are crossed forming a prayer position. This may be a little difficult in the beginning. If prayer position is not possible it is ok to hold the wrist or anywhere closer.
2. Inhale lift the elbowas high as possible. Lift the chin and look up to the ceiling.
3. Exhale bring the elbow to the starting position.
4. Repeat 5 times, keeping the awareness on the thoracicspine and the space between the shoulder blades.
5. Back to the neutral position.
6. Change the arm. Place left arm on top of the right arm and cross at the fore arm.
7. Repeat the same movement 5 times.

This movement is especially very beneficial for thoracicspine and trapezius muscles

SPINAL MOVEMENT

1. From the starting position cup your knees tightly.
2. As you inhale tilt your pelvis forward, push your abdomen forward and lift the chest and the chin as high as possible creating a back bend to the spine.
3. As you exhale tilt the pelvis back, push the spine as far back as possible. Tuck in your chin to the pit of the throat and shrug your shoulders gently.
3. Repeat this movement for10 times in sync with the breath.
4. Back to neutral position and observe the sensations in your spine.

CAT & COW POSE (MARJARIASANA)

This movement is similar to the previous movement except that it is done in all fours. You can place a folded towel under your knee if the knee hurts. If you have severe knee issues, then you can do this standing up in front of the chair and placing the palms flat the chair by bending forward.

1. From the seated position move forward to come in all fours.
2. Bring the palms below the shoulders and the knees just below the hip joints. Keep the spine neutral position without dropping the abdomen. Keep the back as flat as possible. Back of the head in line with the spine.
3. As you inhale lift the head up, tilt the pelvis forward as though lifting your tail bone as high as possible. Bring the abdomen down towards the floor. This is cow pose.
4. As you exhale lift the spine as high as possible. Bring the head between the arms and tuck in the tail bone by tilting the pelvis back. Pull your abdomen in and clear your lungs. Feel a nice stretch to the back and the spine. Some of you may feel an intense stretch to the spinal cord. With regular practice, the intensity of the stretch will reduce. This is cat pose, resembling a defensive cat. If time permits repeat for 2 minutes or10 times whichever is later.
5. Back to neutral position.

The previous two movements keeps the spine supple and increases the mobility of the spine. The central nervous system is relaxed resulting in mental calmness and stress release.

THORACIC SPINE MOVEMENT

1. From the previous position, as you inhale lift the left arm as high as possible. Follow your palm, turn your head and look up to the palm.
2. As you exhale bring the palm to the floor.
3. Repeat this 5 times.
4. Change the arm and repeat 5 times.

Same as the previous pose this pose can also be done supported by the chair standing on your feet. If lifting the arm is difficult you can place the palm at the back of the head and try lifting the elbow as high as possible. Your awareness should be at the thoracic spine.

DIAGONAL STRETCH

1. Continuing from the previous neutral position, stretch your left leg as far back as possible as though you are trying to reach for the wall behind you. Keeping the back of the head in line with the back.
2. Stretch the right arm in front of you trying to reach in front with your finger tip. Keep the arm closer to the right ear.
3. Pull your abdomen in to keep the core muscles active.
4. Hold this pose for 3 slow breaths or for about 20 seconds. When your holding the pose keep reaching on either sides.
5. Change the side and hold for the same amount of time.

CHILD'S POSE (BALASANA)

A child's pose is a very relaxing pose. In this pose, the spine is nicely stretched releasing any tension or compression along the spinal column. There are plenty of benefits to this pose. Physically it relaxes the body my massaging various abdominal organs such as the digestive organs. It stretches different muscles and joints such as the gluteal muscles, thighs, hamstrings, and erector spinae. It cools the body and calms the mind. Staying in this pose for at least 2 minutes is greatly beneficial. Psychologically it gives a sense of security and protection. One can stay in this pose for up to 10 minutes if time permits.

The whole body is passive in this pose. This pose is also known as surrendering pose. Meaning to surrender to the gravity or the supreme.

This pose is called a child's pose not because we can sometimes find a child sleeping in this position. It is because the curvature of the spine is nullified. The lumbar spine and the cervical spine are stretched forming just one curvature to the whole spine just like the spine of an infant.

1. Sit on your heels with the knees closer to each other and the inner thighs touching each other. As much as possible maintain the contact between the inner thighs.
2. Bend forward by tilting the pelvis slowly. Try not to lift the pelvis.
3. Rest your abdomen on your thighs as you walk your palms forward one step at at time.
4. Bring the chest closer to the knees.
5. Finally bring the forehead to the floor and rest. If the forehead does not touch the floor place a firm cushion or folded towels or few thick books to support your head so that the back of the neck can relax.
6. Stay in this pose for as long as possible keeping your awareness on your breath, the spine and the rib cage. Preferably stay in this pose for at least 2 minutes

VARIATIONS

1. The abdomen gets a good intra abdominal pressure, which is very healthy in most cases. But sometimes people with big belly might find this pose very difficult. Especially to keep the knees together. Only in that case, you may keep your knees slightly apart so that the abdomen can go between the thighs.
2. If you have a knee injury or very limited mobility to the knees, you may sit on the chair and do the modified version of the child's pose. The steps are as follows.
    1. Sit on the chair, preferably almost in front of the chair.
    2. Anchor your feet nicely on the floor little wider than the hip.
    3. Keeping the back straight bend forward to bring the body between the thighs.
    4. If you can reach the floor, place your palms on the floor. Make sure not to stop your range of mobility from the hip. If not place few books or a small stool to place your palms. Keep the arms relaxed.

CHILD'S POSE TO COBRA POSE MOVEMENT
(BALASANA TO BHUJANGASANA)

1. From the child's pose, press your palms with your fingers spread wide and knees firmly on the floor, lift the hip and the head up to all fours.
2. As you inhale, continue moving the pelvis forward, keeping the arms straight, moving to a full cobra pose as shown in the picture. Try not to shrug your shoulders. Keep your ears away from the shoulders. Keep pushing the floor away from you with your palms. The neck should elongate. Look up or look straight. Lift the chest as high as possible. As you exhale move the hip back and sit on your heels.
3. Repeat for 5 times.
4. Rest in childs pose for few more breaths. This will release any compression if there was any

This movement prepares the spine for the variations of Bhujangasana (cobra pose) which is next in the sequence.

COBRA POSE (BHUJANGASANA)

1. Lie down on your abdomen placing the palms next to the chest as shown in the picture. Elbows should point upwards. Rest your forehead or your chin to the floor.
2. Keep the heels and the inner thighs pressing reach other.
3. Press the top of your feet to the floor so that the legs are active through out. This is the starting position.
4. As you inhale, without pressing the palms on the floor try to lift the upper body as high as possible. The arms remain passive. Engage your back muscles to lift.
5. Exhale bring the chest and forehead down to starting position.
6. Repeat 3 times.
7. On the third time stay in the pose breathing normally for 10 seconds. Keep your back muscles and the legs active through out. You may repeat this for 3 times by holding for 10 to 15 seconds each.

This pose strengthens the spine and increases the mobility of the thoracic spine. As the mobility of the spine increases so does the capacity of the lungs. Digestion is improved as it puts a gentle intra abdominal pressure. Pelvic floor is toned.

FULL COBRA POSE (BHUJANGASANA)

This pose is exactly the same as the previous pose except here use your arms a little bit to increase the range of the spine. Make sure not to lift the pelvis up. Thighs remain on the floor. Arms are slightly bent. Use the back muscles and squeeze the gluteal muscles as much as possible to lift the body. Hold for 10 seconds and repeat 3 times.

BOW POSE (DHANURASANA)

1. Lie down on your abdomen.
2. Keep your feet and the knees slightly apart.
3. Bend both the knees and hold by the ankle with your palms. The heels are on your buttocks at this time.
4. As you inhale, lift the head, knees and thighs simultaneously.
5. Take your feet far away as possible.
6. Hold this pose for 10 seconds.
7. Repeat for 3 times.
8. Gradually increase the time of hold from 10 to 30 seconds eventually.

Dhanurasana is great for strengthening the spine. Relieves and prevents back pain. Very good for digestion. People suffering from stress and abdominal issues such as constipation should do this pose very often. Boost simmunity

LOCUST POSE (SALABASANA)

1. Lying on your abdomen, stretch your arms over your head. Keep your feet together.
2. As you inhale, lift the left leg and the right arm simultaneously.
3. Exhale bring the arm and leg slowly down to the floor.
4. Alternate the sides. And repeat 3 times on both sides. On the third time stay in the pose for 10 seconds on both sides.

This time inhale lift both arms and both legs together balancing on the abdomen only. Stay for 10 seconds. Repeat 3 times.

SPINAL TWISTS

Every twist is a detox pose. My teacher would describe it as squeezing a wet towel dry. Likewise, twist squeezes the abdominal organs and releases the accumulated toxins, bodily fluids, and deoxygenated blood out of the organs and sends it to the bloodstream for purification and oxygenation. Thus, keeping the system from any toxin build-up. It stimulates kidneys, spleen, and gallbladder and therefore it is perfect for people suffering from diabetes. It rejuvenates the whole body by supplying fresh oxygen to the organs helping them work to its optimum level.

1. Sit in a comfortable cross legged position. You can also do this sitting on a chair with your feet on the floor.
2. With your right palm grab your left knee firmly. If you are sitting on the chair hold the left side of the arm rest.
3. Take your left palm back and place it closer to the tail bone on the floor. By now your spine is slightly twisted. If on the chair hold the back rest.
4. Use the strength of your arms and twist a little bit more.
5. Turn your head and look over the left shoulder.
6. Stay in this pose for 30 seconds breathing slowly and deeply. Your breath may be a little bit shallow as the diaphragm is slightly pushed up. However, try to breath slowly.
7. Come back to the starting position as you inhale.
8. Repeat to the other side.

Variation 01

1. Stretch both leg sin front. Sit tall with spine erect.
2. Bend the left knee and bring the heel closer to the left buttock.
3. Wrap your right arm around the left leg as shown.
4. Place the left palm at the back slower to the buttocks, making sure you are not leaning back. Keep the spine perpendicular to the floor.
5. Exhale, use the strength of your arms and twist the spine as much as possible.
6. With right arm pull the left leg closer to the abdomen and chest.
7. Stay for 30 seconds on both sides.

Variation 02

1. Stretch book leg sin front. Sit tall with spine erect.
2. Bend the left knee and place the left foot outside of your right knee.
3. Bring right arm over the left knee and grab inside of the right shin bone.
4. Get a good grip of the shin bone and twist the spine as much as possible as you exhale.
5. Hold for 30 seconds.
6. Repeat to the other side

Choose a variation that you are comfortable with. Begin with cross legged variation and slowly work towards variations 1 and variations 2.

Spinal twist energises the body and improves alertness. Improves immunity by keeping the bodily fluids moving.

SURYA NAMASKAR (SUN SALUTATION)

Surya means 'sun' and Namaskar means 'to salute or salutation'. The sun is known for its healing property and provider of health in many cultures. Therefore Sun Salutation brings and restores good health and builds up strength to the body. Especially in recent times, the practice of Surya namaskar has to be emphasized more. Regular practice of Surya namaskar helps build immunity. It helps lubricate the joints, releases accumulated toxins in the system, tones all the muscles in the body including the muscles in the eyes, increases lung capacity, and improves cardiac health. These are only some of the benefits. The list however is long.

Surya namaskar is a set of 12 posture which is done one after the other in synchronization with the breath. It is a dynamic practice. The pace depends upon the person's capacity of the lungs and the speed of his/her breath. Usually, it is done slowly in a way that it is the breath that guides the movement and not the other way around. Each breath has a movement and each movement has a breath. But at first, it is important to learn each pose separately. You can do that by pausing in each pose and understand them correctly. Experience each and every pose separately before joining them together as one dynamic sequence. If you are gifted to learn it from an experienced teacher please learn my all means. In this article, I will try to give the best understanding possible. However, teachers' guidance is always appreciated. The practice of Surya namaskar is greatly beneficial when eventually you are able to sync the breath and movement seamlessly. Surya namaskar is best done in the morning in an empty stomach after the bowel is cleared completely. Although it is beneficial to face east and practiced during the sunrise it is not practical in most cases. Practicing in the evening also brings same benefits. Because of its dynamic nature, one may perspire, so do not be alarmed. Hearth rate may also increase. If it does, stop the practice and lie down for a few minutes and then start again.

If you are having cardiac issues please refrain from practicing Surya Namaskar and get advice from your physician and an experienced yoga teacher. People with cardiac issues should not attempt dynamic practices without advice from the experts. If you had taken a pain killer or alcohol in the past 24 hours you much refrain from yoga practice.

12 STEPS TO HEALTH

STEP 01

Stand almost in front of the mat, with your feet together. Lock your knees but not push it back. Bring your palms beside the thighs with fingers pointing down. Pull the shoulders back and drop. Keep the spine erect. Bring the chin parallel to the floor looking straight ahead. This pose is called samasthiti or Tadasana (mountain pose).

'Sama' means even. The body weight is distributed evenly on both legs. Weight is supported evenly by the toes, ball of the feet, heels, and outside of the feet.

STEP 02

As you exhale, join your palms in a prayer position. Palms are joined firmly but not too tight. Bring the forearms parallel to the floor. The thumb should touch the sternum bone where the rib cage meets at the bottom. The chest is lifted slightly. The movements are done slowly with complete awareness of the whole body. Clear your lungs as much as possible.

STEP 03

As you inhale, stretch both arms straight over your head, reaching up to the ceiling and arch back a little bit. Knees are kept straight. Thigh muscles should remain active to avoid any compression to the lumbar spine. The hip is pushed slightly forward. Display the chest to the ceiling. Look up to the ceiling or space between the palms.

STEP 04

As you exhale, fold forward from the hip joints. tilting the pelvis lifting the tail bone and sits bone. Place the palms beside your feet. This may be difficult to achieve in the beginning due to tightness to the hips and hamstrings. In that case, bend your knees and try to place the palms on the floor. You may also place the palms on the shin bone as close as possible towards the ankle. Drop your head down so the entire spine gets a nice stretch.

STEP 05

Inhale, step back with your right foot as far back as possible. Place your right knee on the floor and point the toes back. Push your hip forward as much as possible. Lift the chin and look up the ceiling. Palms are still placed on the floor in the same position. Look up with your eyes. If possible try to look at your eyebrows. This exercises the eye muscles as well. This gives a very good stretch to the quadriceps, gluteal muscles, and hamstrings

STEP 06

Hold the breath, curl your right toes in, lift the right knee off the floor. Lift the hip a little bit making room for the other leg to go back. Now take your left foot back and place it next to the right foot. Now the feet are together at this time. The final position is when the body is in a straight line like in a push-up position.

STEP 07

Exhale, bring both knees down to the floor. Bend at the elbow, bring the chest between the palms on the floor. And finally, bring the chin or the forehead to the floor. The pelvis remains off the floor throughout. Try using the strength of your arms to bring the chest down to the floor. This strengthens the arms and chest. This exaggerates the curvature of the spine. It is important to maintain a healthy curvature of the spine. Eight parts of the body are touching the floor in this pose. Both the feet, both knees, both palms, chest, and chin.

STEP 08

Inhale, pressing the toes firmly on the floor push the body forward, sliding on the floor. Bring the hip down to the floor. Press your palms to the floor and lift the body to classical bhujangasana (cobra pose). Here you will use the back muscles to lift the body. Try to use the arms as little as possible. The elbows should remain bent. Lift the chin as high as possible and try to look at your eyebrows. Toes point back. This pose strengthens and tones the back muscles. Relieves back pain and corrects postural defects.

STEP 09

Exhale, curl the toes in. Pressing the palms and toes firmly on the floor lift the hip as high as possible. This is a very therapeutic pose known as 'adho mukha svanasana' (Downward facing dog). Try to press the heels towards the floor. If the hamstrings are too tight you may bend your knees slightly to feel the stretch to the spine. This is a spinal stretch and does not be too concerned about the hamstrings. Pull your chest towards the knees. Relax the back of your neck and allow the head to hang or bring the chin to the pit of your throat.

STEP 10

Inhale, swing the right foot between the palms. If that is not possible place the foot as close as possible between the palms and quickly assist with the right palm and bring it between. It is very important to keep the palms in the same place as before and not walk back. This maintains the distance between the right foot and the left knee for a proper stretch. This pose is similar to step 05. Point the toes of the left foot back and place the left knee down to the floor. Push the hip forward and look up to the ceiling.

Note: Which ever foot you placed back in step 05,thesamefootshould come between the palms in step 10

STEP 11

Exhale ,curl the left toes in and lift the knee. Bring the left foot next to the right foot for a forward bend. Follow the same instructions as step 04

STEP 12

Inhale, lift the trunk reaching forward with your arms. The movement is initiated from the hip joints. This pose is same as the step 03.

FINAL POSITION

Exhale, bring your arms in front and bring down next to the thighs as step 01 back to samasthiti.

This is half a round.

Repeat the same steps but except you will take your left foot far back at step 05 and left foot between the palms at step 10.

This completes one round of SuryaNamaskar.

A beginner can start by doing 3 rounds for a week and gradually increase the number of rounds as when the body becomes supple and strong. One can do as many as 10 rounds every day to boost immunity, increase the range of mobility, increase lung capacity, and to build up strength in the body and the nerves.10 rounds of Surya namaskar will take about 12 to 15 minutes depending upon the individual's lung capacity. Feel free to take a break between a few rounds. Never let your heart rate increase drastically. If you have to lie down for a while please do so. As mentioned earlier, people with heart diseases should not attempt Surya namaskar without a watchful eye of an experienced yoga teacher.

VIPARITA KARANI (LEG UP THE WALL)

This is a very relaxing pose. This pose is greatly beneficial for people whose job involves a lot of standing like orthodontists, surgeons, carpenters, teachers, construction workers, etc. Standing many hours together can cause the nerves to tense in the legs and eventually leads to varicose veins. This pose prevents varicose veins by relaxing the nerves in the legs. Viparita Karani although a passive pose it is also the most important. In this pose, the spine is resting completely on the floor. Legs are well supported by the wall and therefore the muscles can relax totally. Arms rest by the sides with the palms facing the ceiling.

1. Sit close to the wall with one of your hip touching the wall.
2. Lean away from the wall and as you lie down lift both legs and place the heel on the wall. Keep both legs slightly apart and the buttock close to the wall but not touching.
3. Rest your back flat on the floor. Spend a few minutes to check the comfort level. Make sure to feel totally comfortable.
4. Place arms slightly away from the body. Palms turned upward and allow the fingers to curl naturally.
5. Stay in the pose for about 10 minutes for the best results. One can stay in this pose for about 20 minute sif time permits.

You can do Viparita Karani as a separate practice whenever you feel your legs become tired and need for a short break. Even if you can only get 5 minutes this is the best pose to do. But make sure have at least 2 hours gap between your meal.

Viparita Karani drains any accumulated fluids and deoxygenated blood back to circulation for cleansing of toxins and oxygenation. The heart gets to rest as more blood is rushing to the heart and the cranium. This pose energizes in a few minutes. People suffering from varicose vein should do this for 20 minutes twice every day to find some relief in the long run.

Note: You may feel tingling sensations to your legs as the fluids are drained from the legs. Sometimes the toes may start feeling cold as the blood is drained. Some may start the feel slight numbness to the legs. But the above mentioned sensations are normal and do not panic.

You can come out of the pose slowly whenever you feel relaxed. Bring the legs to any one side and stay on your sides for a minute. Allow the oxygenated blood to flow back to your legs. Feel the sensation of blood rushing. Sit up straight preferably leaning against the wall with your eyes closed for few minutes. If the time permits you can practice deep breathing for a few minutes or use the time to chant mentally or out loud. This is also the best time to set a spiritual intention (not to be mistaken with agenda), affirmations, resolutions, etc., for the day if you are practicing in the morning. Remember health is our birth right and it is sitting right under our nose. Yoga practice is a lifestyle. In fact, yoga is a 7-day practice. Find an experienced teacher to learn yoga in an authentic setting. The poses given above are specifically designed for orthodontists, dentists, surgeons, teachers, etc whose job involves standing for a long period of time and in inevitable bad postures. The postures in this sequence will help correct bad postures and bring relief to people who are already suffering from long term occupational hazards.

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HOW TO BRUSH TEETH WITH BRACES

Brushing Instructions

To get started, remove elastics, bands or removable parts or orthodontic appliances.

1. Place your toothbrush at a 45-degree angle against your gumline. Take the brush and sweep or roll away from the gumline.
2. Brush teeth and gums gently in a circular motion.
3. Brush the outer, inner, and chewing surfaces of each tooth and along the gumline.
4. Use the tip of your brush to brush the inner surface of your teeth and gumline using short back-and-forth strokes.
5. Lastly, brush your tongue to remove bacteria and freshen breath.

Step 1 :

Step 3 :

Step 5 :

Step 2 :

Step 4 :

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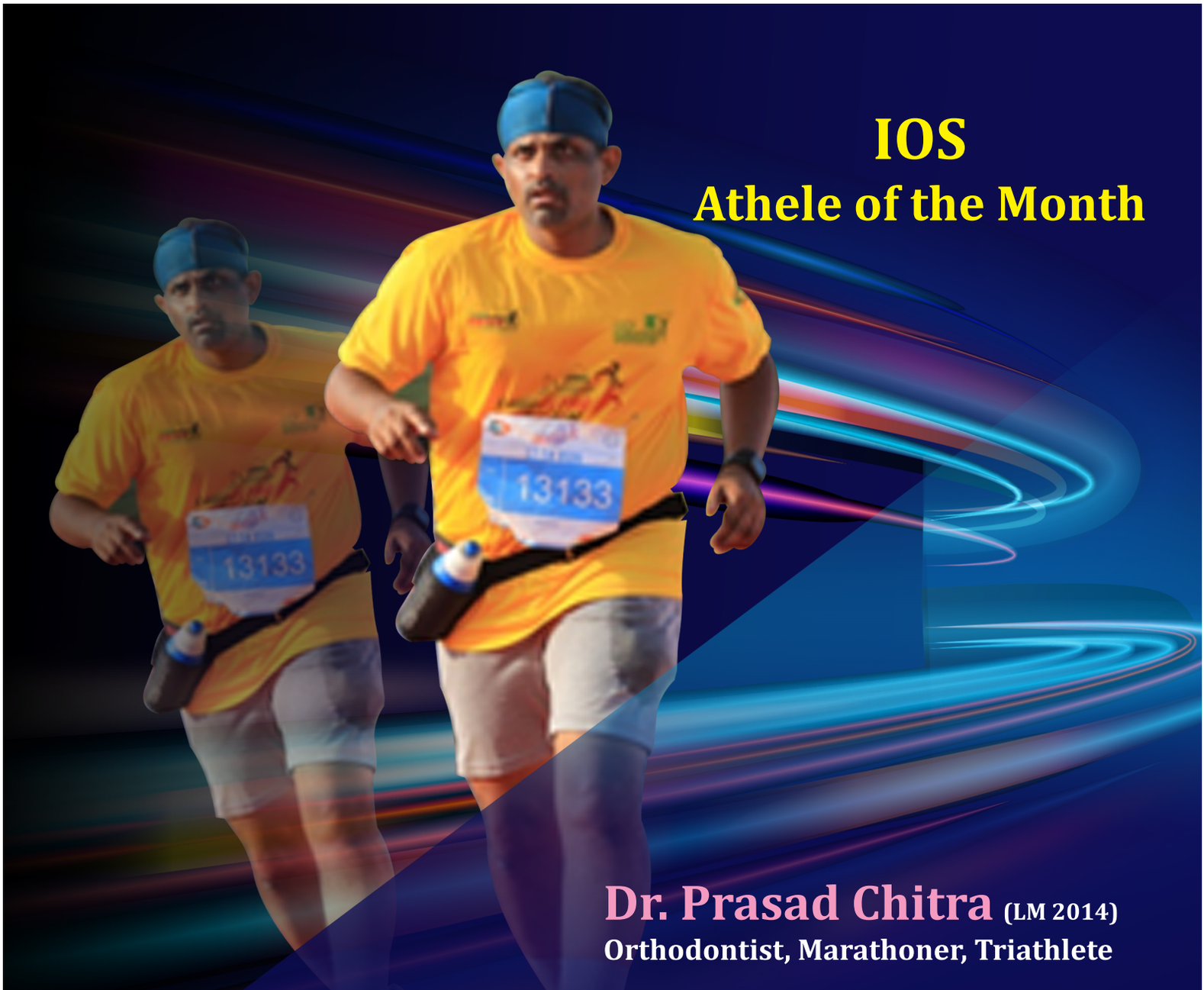
Prepared by Public Awareness Committee of Indian Orthodontic Society
Dr Gaurav Gupta, Dr Divyaroop Rai Dr Anand Tripathi, Dr Ashish Garg



IOS
Athele of the Month

Dr. Prasad Chitra (LM 2014)

Orthodontist, Marathoner, Triathlete

I was born in August 1972 at Hyderabad and completed my schooling at the Hyderabad Public School where playing competitive sports for at least a few hours every day was normal, unlike the lives children today have to lead. It was one of the biggest schools in India with a campus close to 400 acres. I completed my BDS from the SDM College of Dental Sciences in 1996 and joined the post graduate program in Orthodontics from the same institution where I completed my MDS in 1999. Unfortunately, in those days, not muchencouragement was given to physical fitness. It was work all day, eat, sleep and repeat. I also completed 2 Memberships, the MDO RCPS and the M.OrthRCS from Glasgow and Edinburgh a short time later.

I joined the Army College of Dental Sciences at Secunderabad in 2001 at inception and started the Orthodontics department. The years of teaching and practice flew by with no time or inclination to exercise. By late 2016, I was grossly overweight at a 110 kilos and a waistline of 40 plus inches. My knees hurt all day, I snored heavily at night and also had episodes of sleep apnoea.

My wife Dr. Suma was a national level athlete who represented Karnataka state in volleyball and athletics. She exercised every day and was part of a group called the Secunderabad Runners, again a part of Hyderabad Runners which is one of the largest organized running groups in India. Seeing my condition and knowing the consequences, she convinced me to try and find motivation to lead a better lifestyle. The inattention had taken a heavy toll on me by then. Luckily, I had tremendous mental strength. It was what saved me on numerous occasions all through school and college. I needed it now more than anything else. So, I started running in early 2016. The first few weeks were terrible. I couldn't run more than a few metres without feeling exhausted.

My legs hurt and I didn't want to wake up each day. Still, I persevered every single day knowing well it was probably the last chance I had of ever regaining my fitness at that age. I also modified my diet completely as no exercise regime can produce results without the correct nutrition. I eliminated all refined foods, sugars, dairy products and bad fats. I was running easy 5Ks by now. Once I changed my dietary habits, my endurance levels shot up tremendously and the weight began to drop. I lost around 1 to 2 kilos a month. My running buddies inspired and pushed me to think of distances I thought I could never run. I went up to 10K runs and started dreaming of half marathons as the next goal. I did my first half marathon almost a year later. The elation I felt at conquering that distance of 21.098 kilometres is difficult to explain. At the end, I broke down and wept because of the amount of time, effort and sacrifice that went in. I was down to 80 kilos by then with a waist of 30 inches. An overall loss of 30 kilos and 10 inches. I changed my entire wardrobe thrice over 18 months.

My running team also had some crazy cyclists who cycled hundreds of kilometres nonstop all day and all night. I started cycling by early 2017 and bought myself a MTB followed by a Merida road bike. I was comfortably doing 100 K distances by this time and signed up for my first all night 200K(BRM) brevet shortly after. I completed multiple brevets of 200 and 300 kilometres.Pedalling on a dark, lonely Indian highway all night by yourself with only trucks and your thoughts for company is another life changing experience. Changing a bicycle flat in pitch darkness in pouring rain when you're soaking wet teaches you many lessons. I had completed multiple 10K , half marathons and cycling brevets by now. So I turned my attention to the absolute killer of endurance events, the Triathlon. I took part in multiple triathlons over the last 3 years. My favourite is the Olympic distance with 1.5 kms of swimming followed by 40 kms of biking and finally ending with 10 kms of running. I was planning on doing my first Ironman this year at Goa but the coronavirus situation put paid to my plans. I'll probably do it next year. In late 2017, I started dreaming of running a full marathon(42.2 kms). If ever anyone tells you a marathon is easy, never believe them.

As a prelude, to check my mental makeup and endurance, I signed up for the world's highest marathon at Ladakh at 11000 feet. Hyderabad in contrast is at 1500 feet. I trained well for Ladakh and even ran with a special nose cover which didn't allow free breathing so that I got used to reduced oxygenation while running. I ran Ladakh in September 2018 and completed it successfully. I had to acclimatize however, by going well in advance and allowing my body to get used to the reduced oxygen levels(30%). There was also a risk of developing acute mountain sickness during the race. In fact, I saw a large number of runners drop out, vomit and fall terribly sick en route. Long distance running requires time, patience, preparation, positive mental attitude and lifestyle modifications. I trained for 6 months really hard before I ran the Mumbai marathon in 2019.I was generally up at 4.30am, dressed up and drank a large black coffee before pumping the miles. Was done and dusted by 6.30 am most days except Sundays when I ran really long distances alone to train my body to get used to 5 hours plus of intense running. I ran a new distance of 32K at the Chennai Marathon just 3 weeks before Mumbai.

Running is truly in the mind. After a while, your body gives up and you run with your soul for company. The elation on reaching the finish line at Mumbai CST was another cherished moment. That year, I also ran my first Airtel Hyderabad full marathon, the toughest in India since most of the course is uphill(ran with 101° temperature). I also qualified by direct entry to my first World Marathon Major(6 World Majors - London, New York, Chicago, Berlin, Tokyo, Boston) at Chicago. I even got my US visa and was all set to go last October. I lost my dog a few weeks before and completely lost enthusiasm and motivation as a result. I also trained and completed this year's Mumbai Marathon. I love running in maximum city. It always brings out the best in me. Little did I know it would be the last race of this year. I have intentionally avoided mentioning timings of my races as I wanted to ignite the spark of fitness in our younger generation of orthodontists. Enjoy the physical activity without worrying about time or whether you would complete. In due course, you will become aware of the finer nuances of the sport and begin to improve. Everyone was once a beginner. My ultimate goal is to run all the World marathon majors and complete a few Ironman Triathlons. It's always important to have goals to remain motivated.

I would also like to stress on the importance of cross training for maintaining fitness and reducing injuries. Injuries are the bane of every athlete and I had my fair share of them. I swim, cycle, run and also do intensive reformer pilates. I purchased my own Merrithew Pilates Reformer just before the lockdown this year and use it at

least twice a week. It helps stretch and exercise all major and minor muscle groups, improves posture and flexibility and is very relaxing. In addition, I also do yoga and meditation when possible. It keeps me calm and focused. Maintaining a healthy lifestyle is a necessity in the present day world. I kept running even during the lockdown with a bandana around my face. The local police began to recognize me as that crazy guy who runs at 4.30 all by himself. On some days, they even smiled and waved at me. Our health is the only thing we can control. Everything else is Maya. My endurance activities over the last 4 years have completely changed me as a person. I look at things very differently and don't get rattled easily anymore. I laugh more, sleep deeply and have made lasting friendships with my running and cycling buddies as we went through our struggles together. I work harder with increased concentration, have learned to divide my day into segments and look forward to the next activity. I strongly encourage all of you to incorporate physical activity, yoga and meditation in your daily routines. Your outlook of life will change, stress will be eliminated and the world will become a better place as a result.

A. From Fat(110) to Fit(80). Just keep pushing

D. Initiating the fitness bug in my PG students

B. Early days of fitness C. Hyderabad Ultra Marathon

E. Always enjoy running with my students

F. At the Hyderabad Club Run 21K

G. We run even on Holi

J. Enjoying nature during my cycling brevet. You see a lot of the world when you ride a bicycle

H. Ladakh Marathon

K. At the end of my 200K all night brevet

L. Sweet rewards and memories for life

H. Chennai Marathon 32K

Q. The most important thing is never giving up

I. My first full marathon, Mumbai 2019

O. Airtel Hyderabad Full marathon 2019

P. Mumbai Marathon 2020

M. Brevets become an obsession after a while

N. First 300K brevet

IOSTIMES STUDENT MEMBER'S SECTION

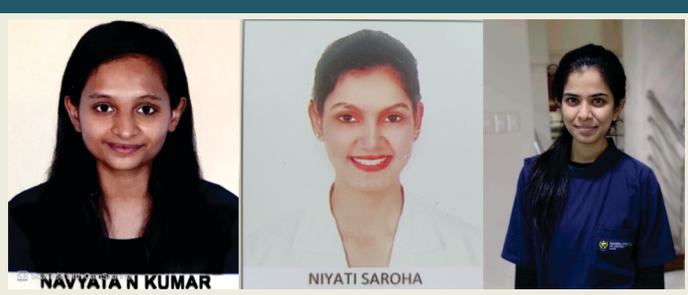
Section Editor : **Dr Kavitha Iyer**

IOS Times invited Student Members to contribute articles on the following two topics from the Previous issue (June 2020 Issue)

1. How to make the Best use of COVID Lockdown period to cope with Orthodontic Curriculum
2. Establishing " New Normality" as we return to Department

The response was huge with 54 teams submitting 84 articles, from various colleges across the country. Our editorial team short-listed these contributions as two1st, two 2nd & two 3rd best submissions from the above-mentioned two topics. We are publishing the two 2nd best articles in this July Issue. 3rd best articles shall be published in August issue. IOS Times appreciate every Student member who participated. Considering the huge volume of submissions we regret to state that, only the 12 Best out of 84 articles could be published. We are opening more such forums in the future for our Student members and we expect you to participate with this same enthusiasm. In future, publication of fresh contributors shall be given preference.

How To Make The Best Use Of COVID Lockdown PERIOD To Cope With Orthodontic PG Curriculum
2nd Best Article – Article 1



Dr. Navyata **Dr. Niyati** **Dr. Harshini**
Manipal College of Dental Sciences, Manipal.

ALADDIN AND HIS 3 WISHES...

The night before 23rd march, was hectic. She finished dinner and was heading back to finish her half-done seminar. It was going to be another 3 long days, before she got the good 8-hour long nap. If only she was granted 3 wishes like Genie had granted Aladdin. "I know what my first wish would be…ah that's easy! More time!!", she thought. If only wishes would come true. It was a tiresome night, before she turned to her mobile to set her alarm and was fast asleep in a split second.

The next morning was yet another monotonous routine before she reached her college. Everything seemed to have changed overnight somehow. There were briefings for infection control all morning, announcements of a 21-day national lockdown which her college would abide by as well. In all that chaos of gathering her things and emptying her locker, she thought to herself, "Am I going to have

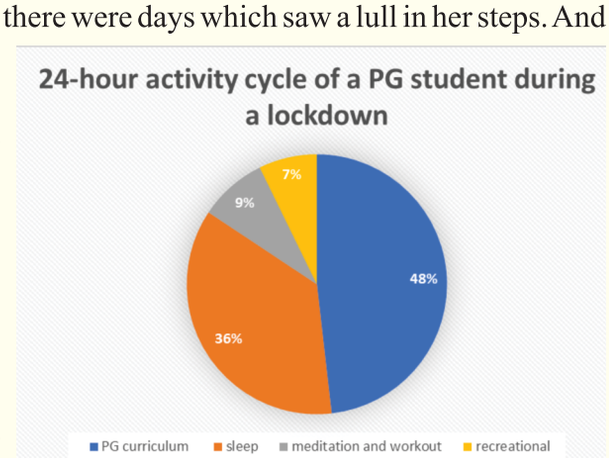
21 days all to myself without any mundane routines?" It sounded too good to be true. Her alternate universe wishes with the Genie had completely skipped her mind (just like the less important things seemed to take up tiny fractions of space in her brain these days). The sense of freedom that came with the first 4 days of lockdown were the best she had experienced in a long time. She shut herself off completely from every possible work, focussed on her health, caught up with family members and friends, enjoyed a hot cup of morning coffee in her balcony, finally having time to appreciate the beauty of nature, be it the mere colour of the sky. An 8:30 am to 4:30 pm schedule had left her with so little time for herself. She finally stood in front of the mirror for a good long 5 minutes and worried only about her hair and skin routine and not the next assignment. She woke up light-hearted the next morning for the first time in two years. But little did she know that the brain of hers which was accustomed to running at 10miles/hour, was not going to enjoy this non-productive schedule for long and that's when it hit her, she had all the time in the world! But how would she possibly keep her focus and divide her time to work proficiently. If only there was someone to hear what she wished for. Oh, the Genie! That's when she made her second wish, "Help me to stay productive and motivated in this period". Although the world was dealing with a crisis, she had found her silver lining. All she needed was a plan to bounce back with her newfound vigour.

As the saying goes, "Birds of a feather flock together", soon her batch-mates decided to give a quick reading to some of the topics they felt needed their attention. The next week flew by as a routine set in. They virtually met up for a couple of hours each night after dinner to discuss the topics of the day. She had detailed discussions with her colleagues who had their own doubts. Walking each other through these mind blocks and studying together seemed to broaden her cerebral aptitude as well. After one week of intense study, soon her college decided to re-start seminars and journal clubs. She couldn't be more excited! The same seminars and JCs that had given her a headache and made her lose sleep, now seemed exciting to dwell into. But not all days painted a rosy picture. There were times her mental health took a toll on her, as she was all by herself with not many people to talk to. She soon discovered the charms of meditation, and she passionately started inculcating it in her daily routine.

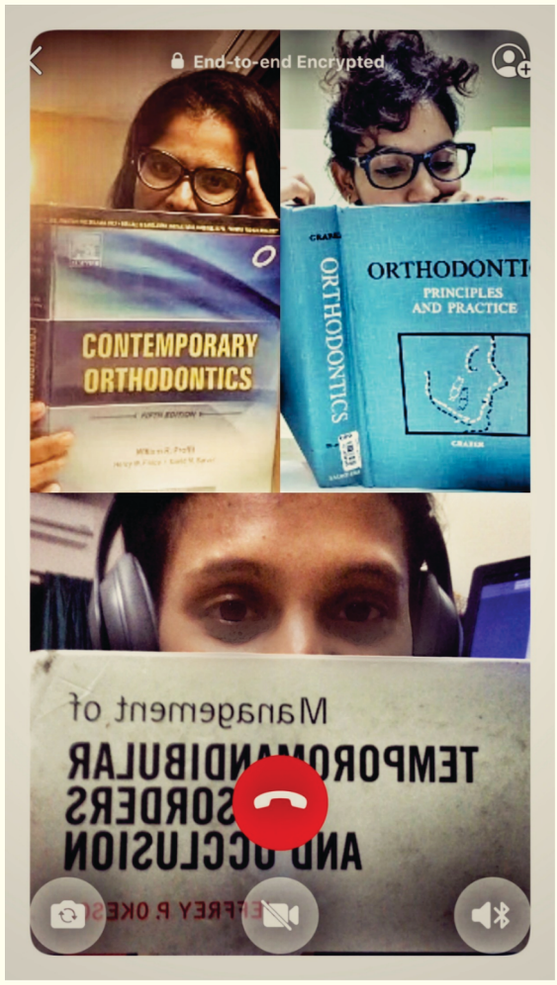
One seminar (Thursday) and JC (Saturday) was allotted to her every alternate week. She soon reserved Mondays and Tuesdays for her seminar research and preparation. Wednesdays became the designated group discussion days, occasionally involving the mentors. She was ever grateful for her encouraging and supportive staff. Thursdays and Fridays soon became days for self-study, to catch up on all the topics that she had neglected in the past. Being a second-year student often felt as though she was in the midst of an ocean, on one side she had come a long way, and the other side there were never ending waters to surpass. She allotted the 2nd half of Fridays for preparing for the journal club presentation, which were to be held on the consequent day. The remainder of the weekend was enough to recall and review everything she had learnt over the course of the week.

There were amazing platforms like the Indian orthodontic society and various national and international study groups that offered free webinars to students. Wasn't that the best! She made sure to attend them. Although her thesis work had halted and she wasn't sure when she would be able to work on it again, she continued to gather literature and make sense of the jigsaw puzzle on hand. Another jigsaw piece that seemed lost was her patient follow ups. But the pickle that lockdown 1.0 had put everyone in had only one solution- online consultations, to ensure the well-being of the patients.

Some days had her buzzing from one webinar to another and then there were days which saw a lull in her steps. And yet, even those days seemed more productive than the work she could manage to squeeze in after a routine college day. That's what we seem to overlook very often. The importance of break and de-stressing in our routine. Studies have found that breaks can reduce or prevent stress, help to maintain performance throughout the day and reduce the need for a long recovery at the end of the day (1,2). A relaxing break can help to facilitate recovery, by returning your mental and psychical functional systems to their baseline (3). Recovering from work stress can restore energy and mental resources and decrease the development of fatigue, sleep disorders and cardiovascular disease (4). Yes, citing studies has become a habit only second to brushing!



There were also the piled up mid and post treatment photographs and excessive documents which she had procrastinated to organise, and now she saw no reason not to organise patient photographs and record details into organised folders.



What is life beyond post-graduation? Our PG curriculum definitely enhances our clinical skills and teaches us to be the best versions of ourselves, but the world outside is a scary place to step into. This break enabled her to experience how unprecedented and unexpected situations bear an impact on her life. Thinking of her future career options and having an open mind about where life can take her, was also the biggest of her lessons. Sometimes even the best plan tends to fail. But what doesn't fail is the work you've put in and the knowledge you've gained.

"When the going gets tough, the tough get going." And that spirit is precisely what kept her afloat in these dark times. She made it a point to spare some time to tutor kids who were missing school. Because isn't that what makes us human; the ability to hold onto each other and endure calamities with the same tenacity that we have been doing for centuries.

We would like to end this article on a positive note- "When you can't change the direction of the wind-adjust your sails." (quote by H. Jackson Brown Jr). The lockdown has been a blessing to catch-up with our backlog and it gave us a nudge to learn new things with fresh and clear minds. We thank IOS for giving us the opportunity to reflect on what these testing times have taught us, and how we as a community can come together to make this place a better world to live, laugh, sustain and work together in.

Not to forget, aren't you curious about the third wish? After all Aladdin and the Genie's story wouldn't have happened if not for the 3 wishes! Before the girl was about to ask for her third wish, the genie himself appeared and said, "Are you sure you want another wish?". The girl thought hard and what she came up with left a smile on genie's face. So, the third wish indeed was to let the 3rd wish and the Genie free, so she could embrace life with not only the good it provides, but also embrace its uncertain times bravely.

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How to make the best use of covid lockdown period to cope with orthodontic PG curriculum
2nd Best Article – Article 2

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"Learning can never stop; only change the way of deliver."

Necessity is the mother of invention so now it's time to open all necessary doors. We can't resolve all the problems but at the same time we can solve very much of them, we can and we will do so.

We all know corona virus is spreading like fire in forest and We can only make assumption on the current corona situation, actually we don't know what and where is the end of this pandemic and all the student's future is at stake because of this condition. This leads us to think of digital learning.

During this lockdown period, we can arrange the webinars which we all are hopefully doing right now.Talking about our college, our HOD sir, Dr. Ajay k. kubavat arranged approx. 60 numbers of webinars. which include international speakers also. Due to such Webinars we can learn so many things that we can apply in our patients in different ways and we can also share our knowledge on this online platform. Advantage of such webinars that we can connect with speakers across the world also.

Main disadvantage of such webinars is lack of student's interest because they also experience this online learning first time .To bring their interest we can also Schedule some interactive session like,

1. Question & answer
2. MCQ test and discussion on them
3. Arrange debates
4. We can record the session and forward it to all students

We can minimize our online resource and stick to two or three of them. We can also make one college website, on that we can add all the students and staff members and start online lectures, post videos of the lecturers and submission.

Now talking about PG curriculum.

For easy understanding we divided PG activities in three parts,

Part 1 PG we can conduct online

- Basic lecture classes
- Pre-clinic exercises
- Webinars by students
- Follow up and submission of short studies and library dissertation.
- Basic idea of clinical work
- Paper practice
- Online discussion and demonstration for a basic wire bending in MBT and other techniques.

For part 2 PG we can conduct online,

- Webinars
- Journal club
- Case discussions
- Poster practice
- Submission of short studies and Library dissertation.
- We can also discuss old allotted cases and find any other possible treatments or out of the box treatment.

For part 3 PG we can conduct online

- Webinar • Journal club • Submission of thesis • Paper practice
- And for all Postgraduates we can also arrange the weekly MCQ test and discuss all the questions
- Advantage of such webinars is that staffs can connect with thousands of people at a time and students can also connect to any speaker across the world. This Covid condition is worst and very dangerous but we can face it, there are number of problems around us but we can try to solve them one by one.
- Online learning is the new experience but remember one thing that only experience can upgrade our life.

New Normality to Prevent A Fatality: A Review

2nd Best Article – Article 3

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ABSTRACT

The coronavirus (COVID-19) is considered as a life-threatening global epidemic which has extended its tentacles to the entire world. Even though the safety guidelines and infection control strategies are constantly revising, the outbreak is still rising due to its transmission through droplets/aerosols. Medicines/vaccines are yet to be discovered for tackling this infectious disease. Health care professionals all over the world is working relentlessly to halt its community spread, but the COVID- 19 virus has gripped the entire world. Despite of its mode of transmission, unavailability of a proper medication would be a major headache. As human saliva acts as a major reservoir of virus, dental professionals are at high risk for nosocomial infection. This review highlights the protocol for infection control particularly in the field of orthodontics.

Keywords: COVID- 19, Orthodontics, Infection control

INTRODUCTION

COVID-19 is a contagious disease which was first reported in Wuhan, central China & caused by the SARS-CoV- 2 virus.[1,2] It is transmitted through aerosol & droplets3 and on March 11, 2020 the WHO declared it as a global pandemic. In order to halt the spread of infection, health care professionals recommended social distancing i.e. maintain a distance of atleast 6 feet between individuals.4 Virus belongs to a family of single stranded viruses known as Coronaviridae is divided into 4 genera: alpha, beta, gamma & delta.[2,5] They are reported to be stable on fomites/ objects from 2 hours to 9 days. As it transmits through aerosols/ droplets, dental professionals are at high risk for nosocomial infection.[6,7,8]

ROUTES OF TRANSMISSION [8]

SARS-CoV-2 virus infections typically transmit through contact or respiratory droplets.[3] So, whenever an infected person coughs or sneezes, millions of viruses get released into the environment and potentially affects individuals who are in close contact approximately at 6 ft distance. Therefore, social distancing is now recommended to prevent disease spread.

Another potential route of transmission (fig 1) is via droplets on inanimate objects/ fomites which are in contact with the infected individuals.[3] In order to minimize this risk, frequent disinfection of objects and proper hand hygiene measures should be done.

In addition, several studies have reported the presence of virus in both saliva and feces of the affected individuals.8-10 It is believed that COVID-19 virus can bind to certain receptors present in human salivary glands, particularly human angiotensin-converting enzyme 2 receptors.(fig 2) This finding may suggest a possible explanation for the presence of SARS- CoV- 2 in saliva.[8,11,12] So dental professionals are at high risk in disease transmission as they are in constant contact with human saliva.[8]

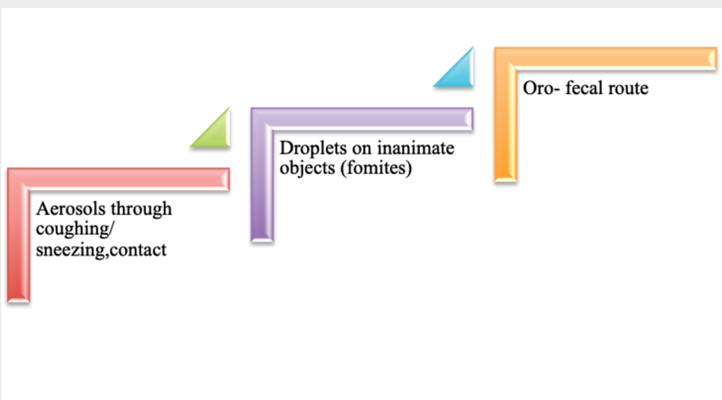


Fig. 1- Routes of transmission[8-10]

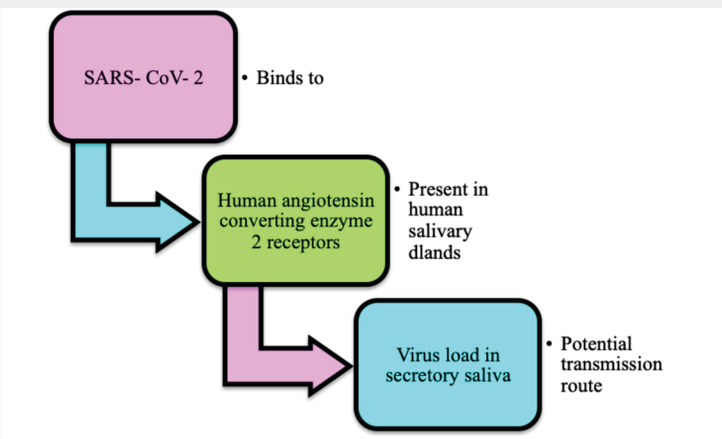
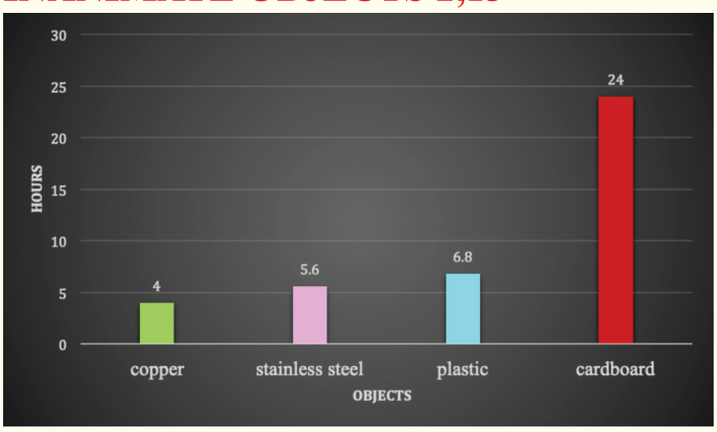
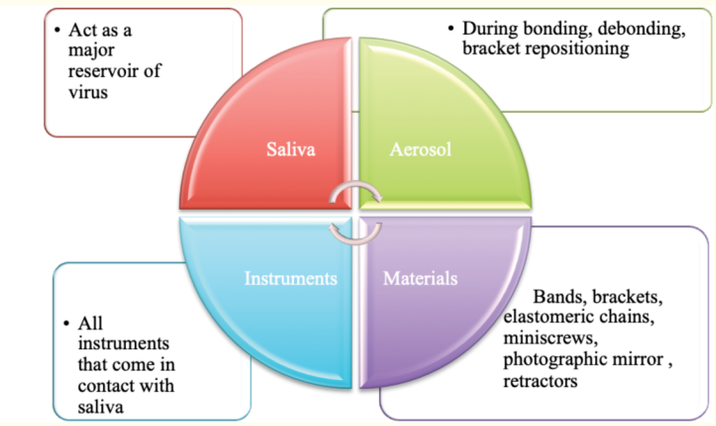


Fig.2- Transmission through saliva[8,11,12]

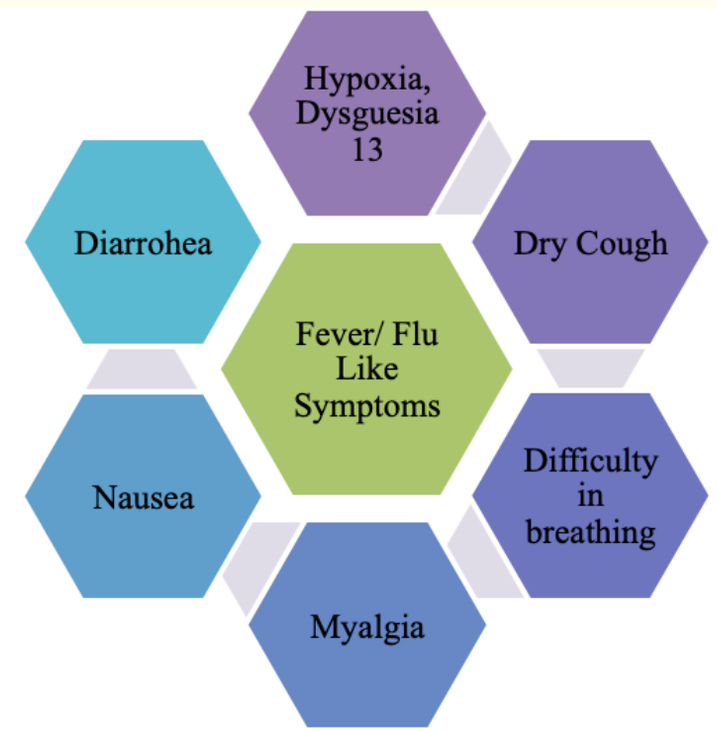
STABILITY OF COVID-19 VIRUS ON INANIMATE OBJECTS 2,13



SOURCES OF CONTAMINATION IN ORTHODONTICS



SYMPTOMS[8]

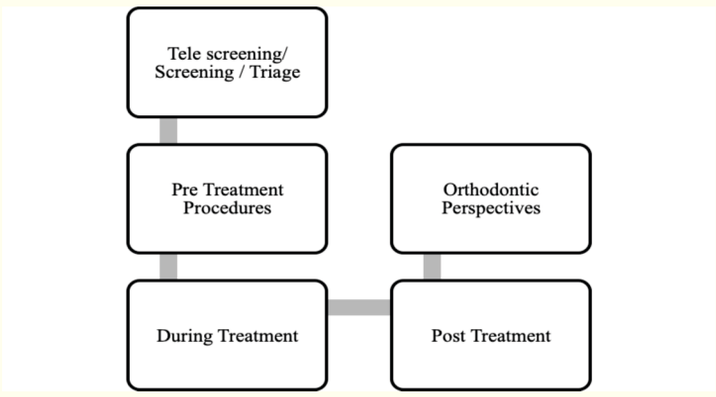


- Symptoms- 80% show mild flu like symptoms (serves as carriers)[14]
- Additional findings- ground glass opacities in chest X ray[15]
- Incubation period- 0-24 days[15,16]
- High risk group- older individuals with debilitating diseases

CLASSIFICATION OF SYMPTOMS[2,14,17]

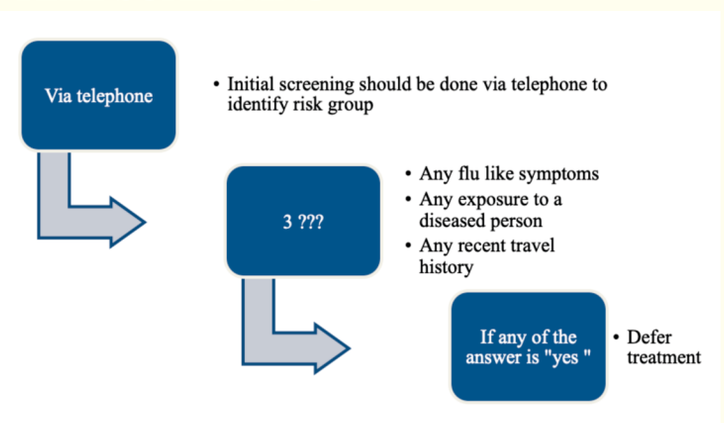
Mild	Moderate	Severe/ critical
Fever	Difficulty in breathing	Multiple organ failure
Fatigue	Diarrhoea	Septic shock
Dry cough	Vomiting	Arrhythmia
	Sore throat	Death
	Myalgia	
	Headache	

How to establish a new normality???



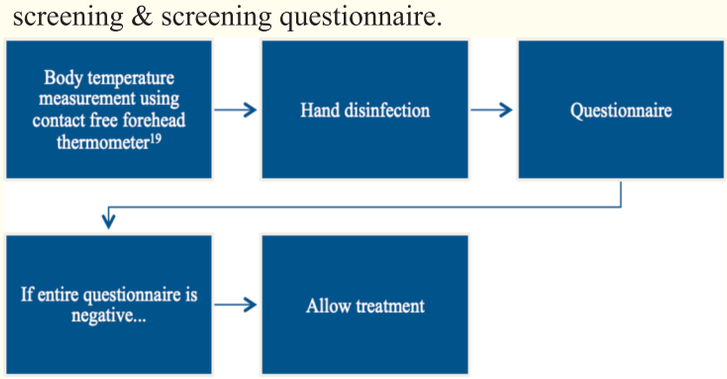
TELE SCREENING/ SCREENING/ TRIAGE

TELE SCREENING



SCREENING

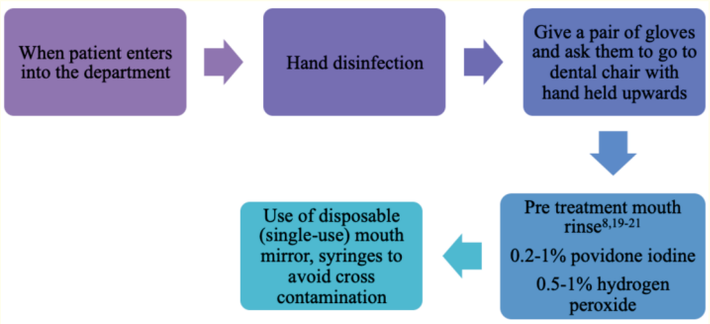
A thorough screening should be done including thermal screening & screening questionnaire.



Questionnaire includes[4]

- History of any fever/ flu like symptoms
- History of travel to a COVID hot spot/ containment zone
- History of visiting any patient who is in quarantine
- History of any breathing difficulties

PRE-TREATMENT PROCEDURES[8]

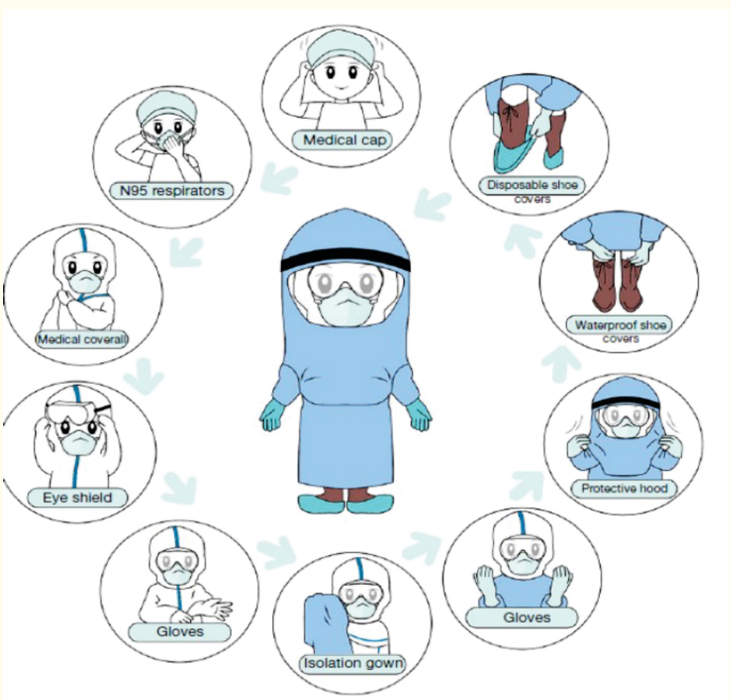


Clinician & dental assistants should follow standard protocols including proper use of personal protective equipment (PPE) and hand hygiene techniques.[18]

PREPARATION FOR TREATMENT

Patient preparation	Staff preparation	Surface preparation
• Use disposable shoe cover • 1-minute mouth rinse using any of these [8,19-21] a. 0.2-1% povidone iodine b. 0.5-1% hydrogen peroxide	• Hand washing for 60 seconds & application of sanitizer • Use PPE	• Prepare all instruments in advance • Wrap all surfaces with disposable covers

PPE[4,22] includes…



Source: Centers for Disease Control and Prevention. Protecting Healthcare Personnel https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf DCI guidelines

DURING ORTHODONTIC TREATMENT

Care should be taken to avoid or minimize aerosol generating procedures for a long time as number of positive cases increasing tremendously.

Aerosol generating procedures →

- Banding
- Bonding preparation
- Debonding
- Bracket repositioning/repair
- Repairing of fixed retainer
- Adhesive removal
- New fixed retainer placement
- Trimming appliances
- Scaling & polishing

Recommended alternatives for aerosol generating procedures

Procedure	Alternative
Bonding	• Light cured resin modified GIC (No need of tooth preparation) • Self-etching primers *bond strength may be compromised
Banding	• Use resin modified GIC as it does not require complete dry field • Use suction when needed
Bracket repair	• Use new brackets • Remove residual composite using hand instruments • Bypass debonded tooth using sleeve/ dead coil/sectional wire
Repair of fixed retainers	Use adhesive removal pliers, hand instruments
Trimming appliances	Disinfection of appliance should be done prior to trimming
Debonding	• Remove brackets and bands using pliers • Remove composite remnants using hand instruments

POST TREATMENT

After treatment

Rinse all instruments in running water & immerse in appropriate disinfectant for 30 minutes and proper sterilization should be done

Water outlets, hand piece water pipelines & 3 in 1 syringe & water containers should be disinfected using 1 % sodium hypochlorite solution

Remove the disposable wrappers from the operatories and disinfect using 1 % sodium hypochlorite solution

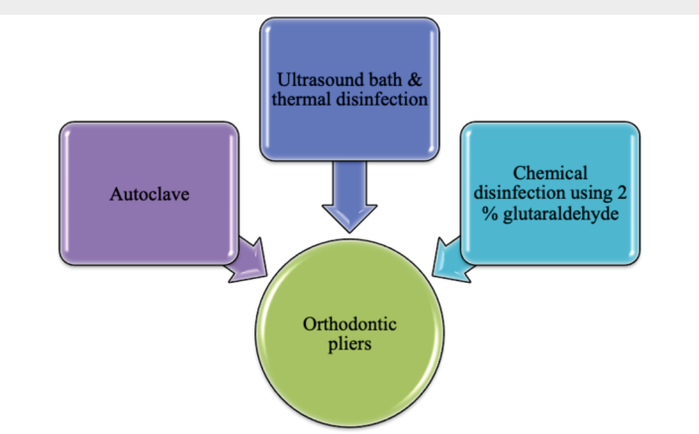
Segregate waste according to colour coding

Back flush suction pipe using 1% sodium hypochlorite solution

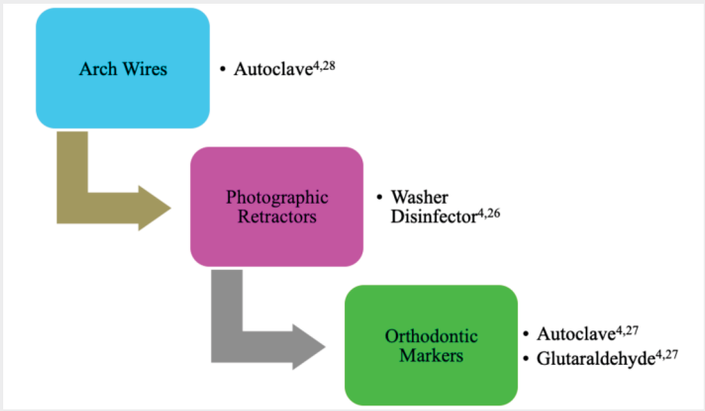
Clean the floor, dental chair, spittoon, door handles and all objects which are frequently touched by patient using 1 % sodium hypochlorite solution

Fumigate the department at the end of the day as per the instructions of manufacturer

ORTHODONTIC PERSPECTIVES



Orthodontic pliers can be sterilized with autoclave/ ultrasound bath, thermal disinfection or chemical disinfection using 2% glutaraldehyde. [4,23-25]



DCI GUIDELINES [29]

- Pre-viewing and triage dental team should wear adequate personal protective equipment.
- Prepare thermometers/thermal scanners (forehead or ear thermometer) for temperature measurement, and ask patients regarding their epidemiological contact history, fever, and respiratory symptoms.
- If the following conditions are encountered during triage, advise patients to leave and instruct them to go to the government hospital or designated hospital, and clean and disinfect the pre-screening triage area as soon as possible.
- Maintain at least a 1 metre (3 feet) distance between yourself and anyone who is coughing or sneezing.
- Patients with body temperature ≥37.3 °C, with symptoms of a cough, runny nose, fatigue etc may be referred to fever clinic and follow protocol.
- A history of travel or local contact with somebody who has a fever may be identified, referred to fever clinic and follow protocol.
- The patient's living or working area has confirmed cluster cases of SARS-CoV-2 infection may be identified, referred to fever clinic and follow protocol.

CONCLUSION

As people infected with COVID-19 pandemic is increasing day by day, it is our responsibility to minimize disease transmission in orthodontic clinics. Proper patient screening & infection control protocols should be carried out judiciously before, during and after treatment. Dental professionals should be aware of the challenges they have to face in current SARS- CoV-2 scenario and should be a part of mission to eradicate this life-threatening condition.

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PRACTICE DURING COVID 19: AN ORTHODONTISTS PERSPECTIVE

2nd Best Article – Article 4

Dr. Chelza.X

Dr. Lubna.P

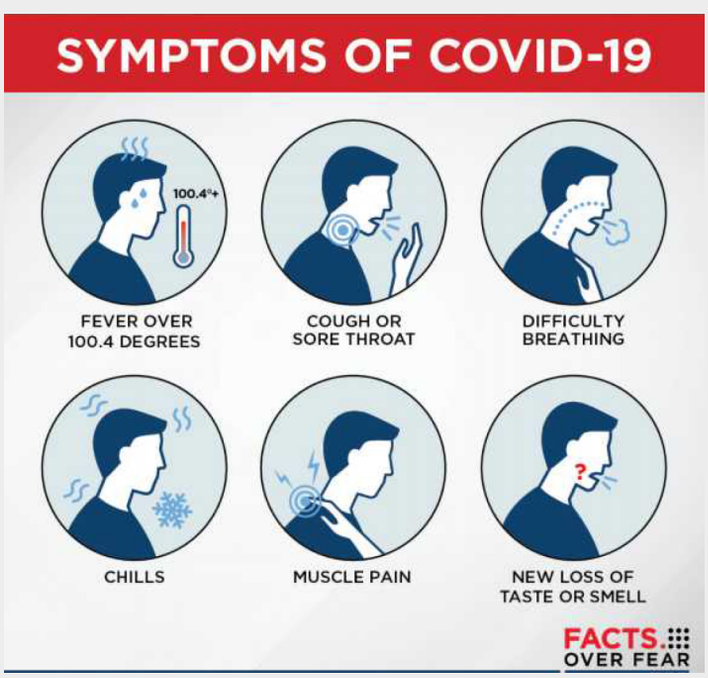
Dr.Gayathri.M.J

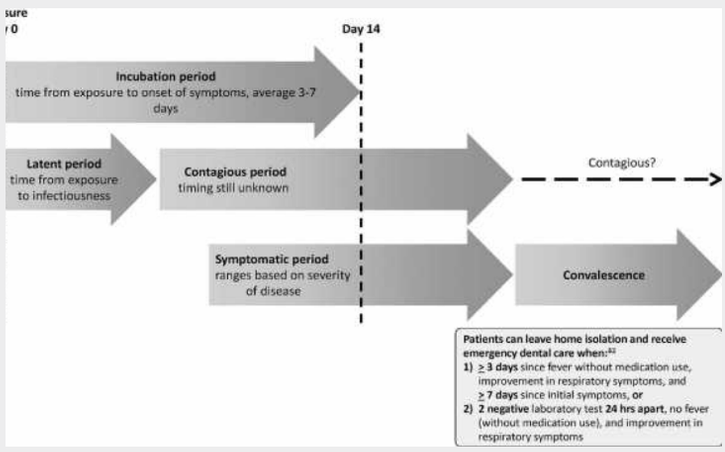
KMCT Dental College, Mukkam, Kerala

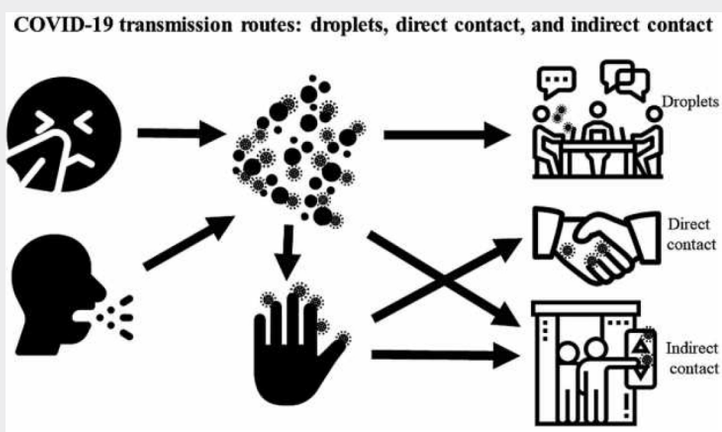
PRACTICE DURING COVID 19: AN ORTHODONTIST'S PERSPECTIVE

'Not only have the deck of cards we were playing with shuffled, but we are dealing with a completely new deck'

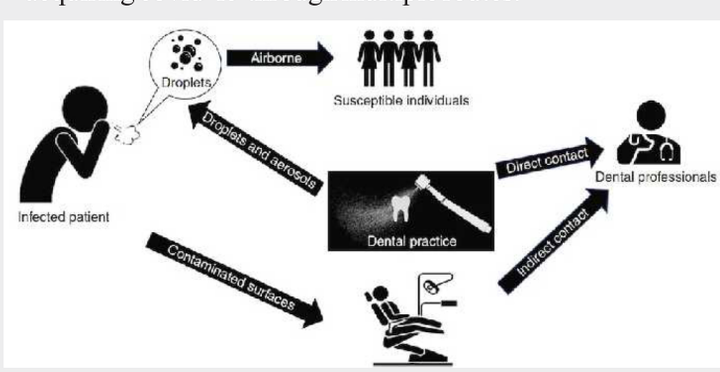
The 17th-century philosopher Blaise Pascal once wrote: "The sole cause of people's unhappiness is that they do not know how to stay quietly in their rooms." Yet at a time when much of the world has been forced to hunker down, we as orthodontists must anticipate and be prepared for the effects of unsupervised orthodontic treatment in the wake of unprecedented suspension of elective treatment due to COVID 19. It is important to be informed, be prepared, be smart, be safe and be ready to fight COVID 19. The standard protective measures in daily practice are not effective to prevent the spread of COVID-19, especially when patients are in the incubation period or choose to conceal their infection







As SARS-CoV-2 has been identified in the saliva of infected individuals, all dental professionals, are at high risk of acquiring covid-19 through multiple routes.



SCHEDULING YOUR GAME PLAN : GETTING WORKPLACE READY

In a 17th March bulletin from the IDA captioned "Be prepared … but don't panic. Due to the unpredictable nature of this pandemic and keeping in mind the probabilities of an unprecedented future lockdown, it is recommended that Orthodontists practice according to the below considerations:

Patient Management

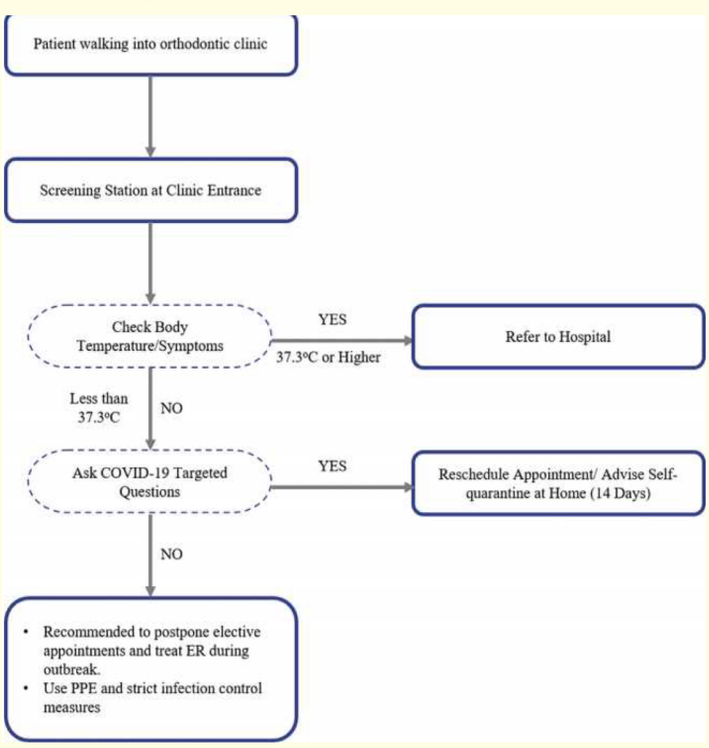
• Contact all patients prior to dental treatment.

• Telephone screen all patients for symptoms consistent with COVID-19. If the patient reports symptoms of COVID-19, avoid treatment for the meantime.

• Request the patient to limit the number of by standers.

• Advise the patients and bystanders to wear a facemask and gloves, wash their hands when entering the facility.

• Assess all patients and visitors upon arrival for symptoms and take the patient's temperature.If the patient is afebrile (temp< 100.4˚F) and without COVID-19 symptoms, then treatment may be provided using appropriate engineering and administrative controls with protocols for infection control. But body temperature can be altered by medication so it is wise to use a pulse oximeter for accurate assessment.



Facility Considerations

• Post visual alerts (e.g posters) • Provide alcohol-based hand rub (ABHR) with 60– 95% alcohol, tissues, and no-touch receptacles for disposal.

• Install physical barriers (e.g., glass / plastic windows) at reception areas to limit close contact.

• Place chairs in the waiting room at least 6 feet apart.

• Remove all frequently touched objects from waiting areas.

ENGINEERING CONTROLS

• Ventilation systems that provide air movement from a clean to contaminated direction should be installed and maintained.

• Consider the use of a portable HEPA air filtration unit while the patient is actively undergoing, and immediately following, an aerosol-generating procedure(AGP).

• Consider the use of upper-room UV-germicidal irradiation (UVGI) .

PATIENT PLACEMENT

Ideally, dental treatment should be provided in individual patient rooms. For dental facilities with open floor plans, to prevent the spread of pathogens consider:

• Physical barriers between patient chairs.

Patient orientation carefully, placing the patient's head near the return air vents, away from pedestrian corridors, and towards the rear wall. Take care to disinfect all surfaces which the patient is likely to be in contact with.

Universal Source Control

As part of source control efforts, DHCP should wear a facemask ,preferably a surgical mask at all times while they are in the clinic. If there is a need to touch or adjust their mask, they should perform hand hygiene immediately before and after.

Personal Protective Equipment (PPE)

• Employers should select appropriate PPE.

• Ensure that reusable PPE is properly cleaned, decontaminated, and maintained after and between uses.

• Wear a surgical mask, eye protection , and a protective clothing during procedures likely to generate splashing of blood or body fluids.

• During AGP, consider the use of an N95 respirator.(If not , use a surgical mask and a full-face shield)

ESTABLISHING THE NEW NORMALITY: TREATMENT PERSPECTIVE

The following are some specific orthodontic procedures and appliances that may have to be modified, at least in the short term in case of an unforeseen lockdown.

Bonding

• Use non-AGP options for bonding.

• Light-cured RMGIC can be used without any prior enamel preparation such as polishing, etching, or drying which are AGP.

• Self-etch primers can be used.

• Use a dry cotton roll to clean the enamel surface instead of a 3-way syringe.

• Indirect bonding may be another alternative. Flash removal for indirect bonding is an AGP and must be performed with caution.

Leveling and Alignment

• The archwires can be cinched back to prevent the sharp ends from impinging on the gums.

To avoid slippage, it is wise not to include the second molars during the first few visits; they can be incorporated during the stages employing flexible rectangular wires.

Ligation

• Passive self-ligating brackets offer advantages in delayed appointments. First few appointments for patients during the leveling and alignment phase can be scheduled about 10 weeks apart.

Extractions and Expansion

• Orthodontic extractions may be carried out with standard precautions, but they should be planned for a single visit to reduce patient exposure with measures to avoid anchorage loss.

• Expansion treatment is possible with close monitoring. Once rapid palatal expansion is complete, retain the achieved results by recalling the patient as soon as possible in case of a future lockdown.

• Slow expansion is preferable because they are more fail-safe and do not create abrupt changes over short intervals.

Space Closure

• Closed coil springs used to exert continuous forces during space closure, can cause over closure or unnecessary tipping if the patient does not report for a long time. In case of an unforeseen future lockdown, it is wiser to employ power chain or elastic thread.

• Sliding mechanics are preferable over frictionless mechanics for preadjusted edgewise appliance systems because when not monitored closely, frictionless mechanics can produce deleterious effects as excessive tipping, unwanted intrusion or extrusion, and occlusal canting.

• Tiebacks may be a useful method.

• The use of intermaxillary elastics for space closure might be avoided at this time, because they require continuous monitoring and can cause adverse effects such as tipping and bite deepening, leading to unexpected gummy smiles in Class II cases.

Miniscrews

• In the current environment, miniscrews should not be placed in patients with poor oral hygiene or existing periodontal problems, since the chances of failure are higher.

• Strict measures must be employed to keep the tissue around miniscrews clean and thus reduce infection- or inflammation-related emergencies.

• Avoid using direct cantilever mechanics from the miniscrews, because they may become dislodged and cause irritation to the soft tissues.

Retention

• Finishing and polishing should be performed with caution during the debonding appointment because they are AGP. • An Essix or other removable retainer is preferable over a bonded retainer to avoid unnecessary aerosol contamination. • Providing patients with additional sets of removable retainers may be a good policy in case one is lost or damaged during a potential COVID-19 resurgence.

Functional Appliances

• Patients using removable functional appliances can be monitored remotely through video conferencing.

• In case of a second COVID-19 outbreak before the start of Phase II treatment, the fixed appliances can be delayed and the retentive phase extended by placing an upper anterior inclined plane to retain the corrected incisor relationship. Aligners

• Clear plastic aligners may offer some advantages in the COVID-19 era.

• In the infrequent instance of loss or breakage of an aligner, the patient is usually advised to wear the previous aligner or, if unavailable, the next one in the series.

• If no aligner is available, a replacement "stage retainer" might be ordered from the manufacturer without a new digital scan.

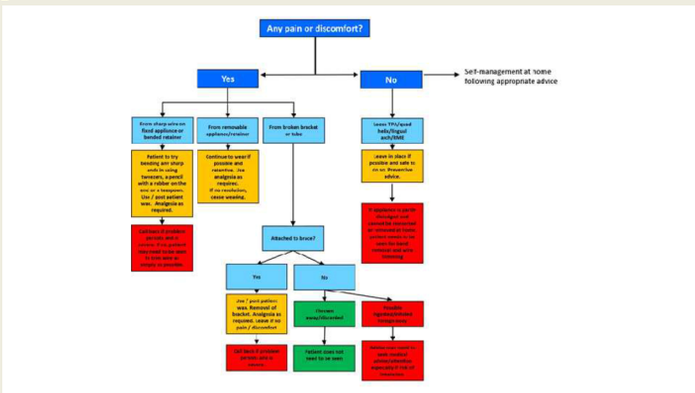
• Fractured attachments can be replaced using one of the protocols described earlier to reduce aerosol generation during bonding.Digital orthodontics

• In current situation, which patient's access to practices has been interrupted, virtual tools for orthodontics have gained increasing popularity.

• Patients can take intraoral "selfies" with smartphones. These photos are automatically sorted, angulated, cropped, and organized by date. The orthodontist can access patient details at any time from any device through a common portal.

• Virtual triage, as well as more immediate solutions to assess and monitor treatment and communicate with our patients, have been made possible by such digital tools.

Flowchart for the management of orthodontic problems



THE SECRET OF GETTING AHEAD IS GETTING STARTED..

This pandemic known as COVID 19 has shut down the entire world. but we can very well utilize this opportunity to practice safe and secure dentistry. What will change is dentistry's safety, security, hygiene, and communication with the public. It's also about taking the time to properly clean, disinfect, and prepare for the next patient. Inspite of all the meticulous planning and preventive measures we may still be at risk of infection as it takes just one asympomatic vector such as a negligent employee or even a service vendor to ruin our practice.

OBITUARY

IOS Grieves on losing our dear senior member

Dr AvinashNawathe,

Gujarat

May God give his family and friends, the strength to bear the pain and
IOS prays for his soul to rest in peace

DrAvinashNawathe was born in 1950.

He did his BDS IN 1973 &MDS IN 1981 ,both from Government Dental College, Mumbai.

He joined KM Shah Dental College in 1999 and served there as a Professor, PG guide and PhD teacher till he retired in 2015.

He is a member and mentor of Gujarat Orthodontic Study Group.

He is missed badly by his Dentist wife, Periodontist Son& Daughter.

IOS Grieves on losing our dear senior member

Dr.Y.G.Reddy,

Nellore

May God give his family and friends, the strength to bear the pain and
IOS prays for his soul to rest in peace

Dr.Y.G.Reddy, Senior orthodontist at Crown Dental Hospital Nellore passed away in 30th July 2020, 10:30am .

He is an alumnus of 1995 Batch- A.B.Shetty Memorial Institute of Dental Sciences, Mangalore

PG MDS : 1993 - 95

He served as Principal and Dean of NIMS DENTAL COLLEGE JAIPUR

A genuinely sweet soul, full of humor

Dr Giri will always be remembered for his Jokes n kindness

May his soul rest in peace

May the lord grant strength to his family to cope with the loss