#### Issue No. 11 | January 2024

# **Medical Messenger**

Official Publication of KH Nursing Home





### From the Editorial

Dear Readers, My warmest welcome to the 11th edition of our newsletter - January 2024 Medical Messenger.

As a new year dawns, let us embrace fresh hopes, seize new opportunities, and embark on uncharted journeys.

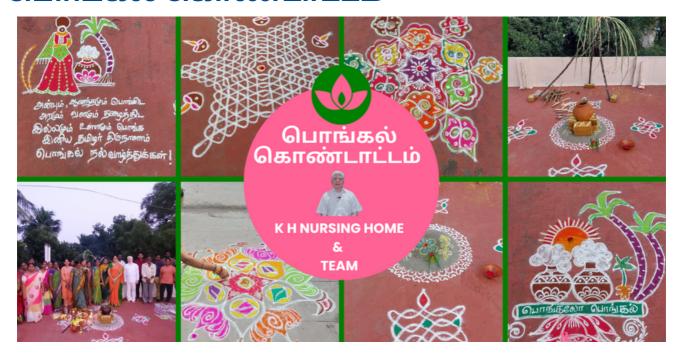
May 2024 bring the strength to pursue dreams, the courage to explore untaken paths, and the faith to tread unknown territories.

Here is to utilise those yoga mats waiting to unfold, symbolising a year of wellness and growth.

# WISHING ALL OUR READERS "HAPPY PROSPEROUS AND HEALTHY NEW YEAR 2024"



### பொங்கல் கொண்டாட்டம்



Click here to view the full celebration video <a href="https://youtu.be/Bw3QSOxizUo?si=N7S5uP4nMXJifHl7">https://youtu.be/Bw3QSOxizUo?si=N7S5uP4nMXJifHl7</a>

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### Osteoarthritis (OA) of the Knee Joint Dr K Hariharan

The most Common Arthritis (Inflammation of joints causing pain) of the Knee is Osteoarthritis (OA). It is becoming more common, especially in menopausal women.

This increase is due to obesity, consequent to inactivity because of a sedentary lifestyle.

The cause is not known, but it has a strong genetic tendency. It starts with pain and stiffness of joints, difficulty squatting down, and later difficulty walking.

Essential Pathology is the Degeneration of the Protective cartilage plates of the Knee and subsequent inflammation of soft tissues around the joints.

As it is a degenerative condition of joints, there are no medications to stop its irreversible progress. Knee Replacement (TKR) Surgery, total or Partial, is the definitive treatment.

Many advances have been made in these surgical techniques. So, prevention is the rule.

It has to be started early in life, with a good lifestyle, exercise, and diet to keep the BMI below 25 always because overweight and obese people with a BMI of 25 or above are the main victims.

The diet should include plenty of fruits, nuts, and vegetables to help reduce the severity of the disease.

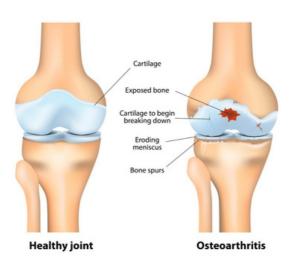
People with diabetes are more prone to this, and hence, strict control with HbA1c below "7" must be maintained.

Once the pain starts, walking and Squatting are stopped, and low-impact exercises such as cycling and swimming with quadriceps strengthening exercises and half squats should be started.

These are lifelong practices even after total knee replacement surgeries.

Osteoarthritis due to trauma and abnormal development of joints are dealt with differently.

### **OSTEOARTHRITIS**



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## Jumper's knee Dr Smith Wiggles Worth

Jumper's knee, or patellar tendonitis, is when your patellar tendon, linking your kneecap to your shin bone, gets inflamed.

If not addressed, it can weaken the tendon and even cause tears.

This tendon collaborates with your thigh muscles, enabling activities like kicking, running, and jumping.



#### Causes

Jumper's knee stems from overusing your knee joint, especially by frequently jumping on hard surfaces.

This injury, often linked to sports, happens due to the strain on your tendon caused by the force of hitting the ground during activities like basketball or volleyball.

Despite being common among athletes in jumping sports, it can affect anyone.

Known as patellar tendinitis, this overuse injury results from repeated stress on your patellar tendon, causing tiny tears that lead to inflammation and tendon weakening.

If this damage persists for more than a few weeks, it is referred to as tendinopathy.

### **Symptoms**

Patellar tendinitis often signals its presence through the initial twinges of pain situated between the kneecap and the shinbone during or post-physical activity.

As time progresses, this discomfort intensifies, becoming a hurdle in your athletic pursuits and daily tasks like climbing stairs. Symptoms include pain and tenderness around the patellar tendon, swelling, and discomfort when bending or straightening the leg.

Tasks like jumping, running, or walking may also induce pain.

If you notice persistent discomfort around your knee, especially during movement, consulting a doctor is advisable for accurate diagnosis and appropriate management.



#### **Diagnosis**

X-rays are useful in ruling out other bone issues contributing to knee pain.

Another diagnostic tool, magnetic resonance imaging (MRI), employs radio waves and magnetic fields to create comprehensive images.

These images are beneficial in identifying subtle alterations in the patellar tendon.

#### **Prevention**

To minimise the risk of developing patellar tendinitis, follow these steps:

- Do not push through pain. If you feel knee pain after exercising, give it a break and apply ice. Stay away from activities stressing your patellar tendon until the pain subsides.
- Strengthen your muscles. Having strong thigh muscles can handle the stress that may lead to patellar tendinitis.
   Include eccentric exercises, slowly lowering your leg after extending your knee, in your routine.
- Refine your technique. Ensure proper body usage by taking lessons or seeking professional guidance when starting a new sport or using exercise equipment.





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#### **Treatment**

#### **Cold therapy**

Applying ice packs to the patellar tendon can reduce inflammation.

#### Strengthen the patellar tendon.

As the initial pain and swelling ease, you can slowly start putting more stress on the tendon to strengthen and aid in its healing process.

Isometric exercises for quadriceps muscle.

- · Wall squats.
- Straight leg raise.
- Side leg raise.
- Clamshell exercise.
- Step up and step down.

#### Stretching exercises

- Stretching for quadriceps muscle in standing position.
- Stretching for hamstring muscle self with a towel.

#### Other Treatments

- Use patellar support or straps.
- Use a knee brace or knee socks.
- · Kinesio taping.





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# Guardians of the Smile: Tooth Enamel Dr Subha Hariharan

### Know your tooth

Continuing our earlier discussion, let us explore where and how sensitivity/pain shoots from the tooth.

Out of his bountiful love and grace, God gave us the gift of "perceiving pain" when our body system goes haywire.

Right from head to toe, when our body system witnesses a state of malfunctioning or gripped by disease or ageing factors are, symptomatically communicated by the P FACTOR known as **PAIN**.

Our friend "Mr. Pearly White," 32 in number-adult/permanent set of teeth and 20 milk/baby /primary teeth, is structurally made of 2 parts: "CROWN" and "ROOT".

CROWN- The yellowish/milky white top portion of the tooth is visible inside our mouth.

ROOT- The crown extension helps secure the tooth in the bony cavities of the jaws, known as sockets.

Our tooth is naturally protected by the hardest compound found on earth next to "DIAMOND", known as "ENAMEL", which forms the outer protective layer of the TOOTH (CROWN).

Enamel is the strongest substance in our body because of the mineral crystals of "CALCIUM AND PHOSPOROUS" arranged in a complex pattern.

As the enamel is translucent, it permits the colour from the underlying layer called DENTINE (2nd layer) to shine through it.

Once the tooth erupts, cells forming the enamel die, leading to a cell-free zone in the enamel. Hence, no pain or sensitivity is perceived by the enamel.

Sound enamel acts as a protective shell against acid attacks on teeth cavities causing bacteria/germs.

Though stronger than bone, enamel is brittle, leading to 'wear and tear'.

A tense situation, stress, or habitual mannerism drives abnormal tooth movements or parafunctional movements like teeth Grinding, known as Clenching / Bruxism.

This has a damaging and deleterious effect on the tooth enamel. The enamel chips get a rugged feel.

It even appears to be darker than before, giving an unpleasant look.

The dark, unesthetic appearance of the tooth is the result of the exposure of the underlying Dentine (2nd layer), which is responsible for both sensitivity and an enhanced pain response.

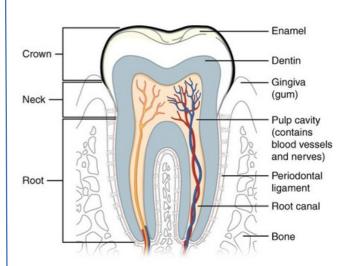
Multiple crack lines also develop on the enamel, weakening the tooth and causing fragmental to vertical fracture of the tooth.

The uneven and sharp edges of the tooth (ex., Molar Tooth) cause mouth ulcers, especially on the sides of the tongue.

Enamel, once it wears away, does not form back. I hope you understand by now.

Only Enamel Replacements like Tooth fillings or Restorations are possible.

Thus, Prevention is always better than cure. So, how do we protect our enamel?



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#### Do's and Don'ts in Tooth Enamel Care

- Use of proper toothbrush and non-abrasive/fluoridated toothpaste(dentifrices).
- Avoid frequent consumption of aerated beverages and soft drinks.
- Timely and balanced food intake reduces gastritis and heartburn, preventing tooth erosions due to acid reflux.
- Avoid prolonged/non-recommended use of mouth rinses or harsh rinses that damage tooth enamel.
- · Proper and thorough rinsing with clean water after meals and snacks is highly recommended.
- Conscious check and correction of the parafunctional habits like bruxism /clenching.
- Practising yoga and meditation will manage stress.

I hope the enamel has been taken care of in this article! Now it is your turn to do your homework. No waiting. Start it right away. I will meet you all in my next post.

Until then, Stay Happy, Healthy and Cheerful.

# Fact of the month Vitamin B: Energise Your Life with the Power of the Bs

Vitamin B Complex: A group of essential water-soluble vitamins.



### Dr Arvind Bharani. R. S.

Discover the powerhouse of Vitamin B, a vital complex essential for various bodily functions. Each B vitamin plays a unique role in energy metabolism and nerve health. Dive into this nutrient-rich guide to understand the diverse benefits and food sources that ensure your body thrives with the goodness of Vitamin B.

- B1 (Thiamine): Supports nerve function, found in whole grains, beans, and nuts.
- B2 (Riboflavin): Aids in energy production, present in dairy, leafy greens, and lean meats.
- B3 (Niacin): Important for skin health, obtained from poultry, fish, and grains.
- B5 (Pantothenic Acid): Involved in metabolism, widely available in foods.
- B6 (Pyridoxine): Essential for brain development, found in bananas, poultry, and fish.
- B7 (Biotin): Supports metabolism and is present in eggs, nuts, and certain vegetables.
- B9 (Folate): Crucial for cell division, abundant in leafy greens and legumes.
- B12 (Cobalamin): Vital for nerve function, primarily in animal products.
- Choline: Often considered B-complex, vital for liver function, found in eggs and meat.



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### Lab Corner:

Comprehensive Laboratory Services at **Sai Clinical Laboratory**. Discover a wide range of laboratory services available at Sai Clinical Laboratory, located within K H Nursing Home. From **Biochemistry** to **Haematology**, **Serology** to **Microbiology**, we offer precise diagnostics to support your health journey. Trust our expertise for accurate results and exceptional care. Your well-being is our priority. Visit us today.



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### **Camp Corner:**





#### FREE SPIROMETRY TEST

## ALLERGY & LUNG FUNCTION DETECTION CAMP

**Every Month Last Wednesday** 

2.30 PM to 4 PM



### **Awareness Corner:**



Welcome the New Year with Dr. K Hariharan from K. H. Nursing Home <u>@khnursinghomeoffl</u>

In this special video, Dr. Hariharan extends heartfelt New Year wishes and shares valuable health awareness tips for a thriving 2024. Embrace a year of well-being and knowledge. Watch now!

Click here to see the full video

New Beginnings: Health Wishes and Awareness | Dr K Hariharan | K H Nursing Home



**Tele MANAS** is a short form of Tele Mental Health Assistance and Networking Across States, an initiative launched by the Ministry of Health and Family Welfare in October 2022. **Natpodu Ungalodu Mananalam Sevai** is a Tamil name for a tele-mental health helpline service that was launched by the Health Minister of Tamil Nadu on October 28, 2022. You can dial the toll-free numbers **14416** or **1-800 891 4416** to get in touch with a counsellor.

Click here to see the full video

<u>Tele MANAS | Natpudan Ungalodu | Dr Prema | K H Nursing</u> Home



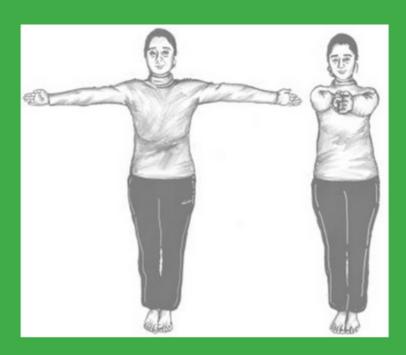
Smile Care
The Complete Oral
Rehabilitation Centre

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### **Yoga Corner:**



## **Hands In and Out Breathing**



- 1. Stretch out your arms in front, in level with your shoulders and bring the palms together.
- 2. Inhaling spread your arms sideways in horizontal plane.
- 3. While exhaling bring the arms forward with palms touching each other.
- 4. Repeat 5 times.

Follow us @svdfoundation







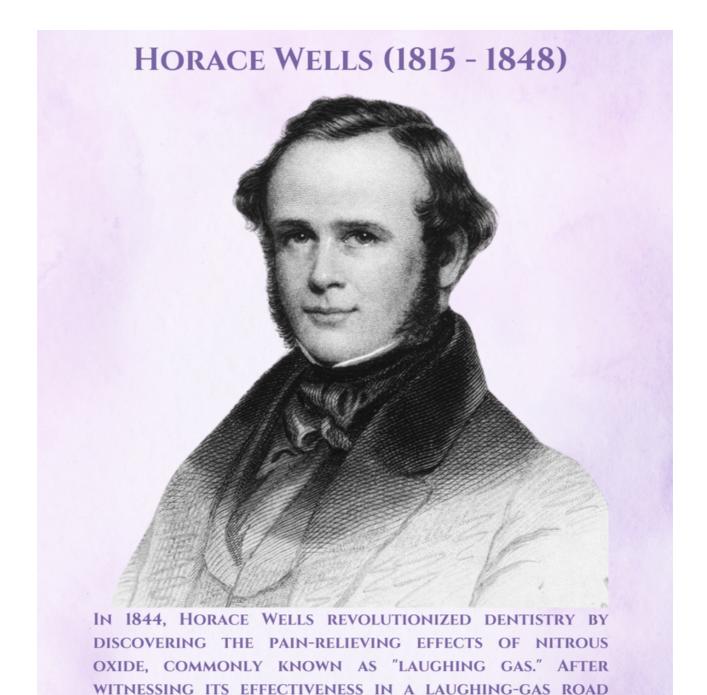
http://svdfoundation.org

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### **Medical Marvel of the Month**



SHOW, WELLS BEGAN USING IT FOR PAINLESS DENTAL PROCEDURES. THIS BREAKTHROUGH TRANSFORMED HOW DENTAL OPERATIONS WERE CONDUCTED, PROVIDING PATIENTS WITH A MORE COMFORTABLE AND LESS PAINFUL EXPERIENCE.





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We thank Shri V. Ramachandran for sharing his personal experience about K H Nursing Home - https://youtu.be/CoEl8i51FKw