

**HEALTH**

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# EXPERT

2024

EMPOWERING MALAYSIANS WITH MEDICAL INSIGHTS



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CONTROL AND  
PATIENT SAFETY**

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**ON THE COVER  
HEALTH EXPERTS:**

LIM THUNG XUAN (BYOND28)

DATO' DR BASHEER (MATCVS)

SITI MANISAH, RTPP (BRAND GEEKS)

*CELEBRATING*  
**INNOVATION**

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LOCUM APPS



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At Locum Apps, we're all about connecting clinical staff! Our regular events, Locum Lepak, bring together locum doctors, dentists, nurses, and allied health professionals for an engaging space to share experiences and build meaningful relationships.

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**JULY 2024**

Games & snacks at our office for visitors at our first office Locum Lepak. Welcome to WeAssist HQ!



**AUGUST 2024**

Had ice cream with you at Mixue KL Sentral. This transportation hub is passed by so frequently by our locum staff!

**1**



**JUNE 2024**

Coffee, cakes & conversation for the Penang locum staff after their shift.

**2**



**AUGUST 2024**

New friendships and amazing food amongst these diverse group of nurses, MAs, doctors and dentists in Johor.

**3**

**4**

**5**



**SEPTEMBER 2024**

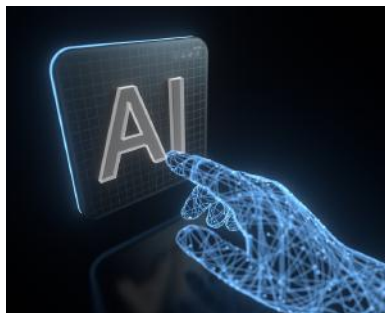
We advocate for financial freedom, and headed over to the Bank Negara Museum to learn more about money!

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Back Row L-R: Aaron, Alan, Aimie, Keith, Issey

Front Row L-R: Dr Fadzil, Tiffany, Atika, Athirah, Hidayah, Izzati, Neha



# LETTER FROM OUR EDITOR

In this special issue of Health Expert Magazine, we focus on *Celebrating Innovation* in healthcare—showcasing the technological advancements and new ideas that are transforming the industry. You may notice that this edition is shorter, but it's intentionally so, designed to be concise and impactful, delivering only the most vital stories that are changing lives and reshaping healthcare as we know it.

One of the key features in this issue is an exploration of *Artificial Intelligence in Healthcare* and how AI is revolutionizing diagnostics, personalized treatment plans, and the overall patient experience.

Alongside this, we dive into essential topics such as *Understanding Processed Foods*, explaining the NOVA classification and how a better grasp of food processing can lead to improved health outcomes on a global scale.

Another critical feature shines a light on Malaysia's healthcare landscape, where *Screening for Congenital Adrenal Hyperplasia*, a complex genetic disorder, remains unavailable. We discuss the need for more accessible screening and how innovation could help bridge gaps in care.

As you read through, we hope these ideas inspire you and expand your understanding of how innovation can improve lives.



*Tiffany Khoo*  
**EDITOR-IN-CHIEF**

## EDITOR'S PICKS

### 1 BOOK TO READ

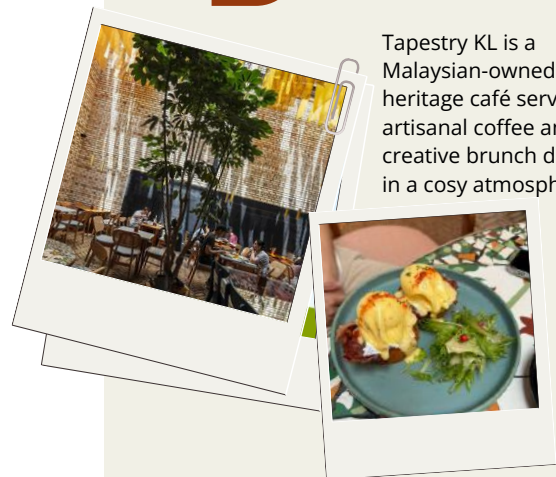
Do therapists seek therapy? This book takes us through what happens when clinician becomes patient. Found great gems in here!

Recommended for those amongst us who often struggle to take our own advice.



### 2 BITE TO EAT

Tapestry KL is a Malaysian-owned heritage café serving artisanal coffee and creative brunch dishes, in a cosy atmosphere.



### 3 SOMETHING TO TRY

Climbing Mount Kinabalu offers an exhilarating adventure with stunning views, diverse flora, and a rewarding sense of achievement.



# Should I pick my ears?

by **Dr. Rajagopalan Raman**  
ENT Consultant  
Sentosa Specialist Hospital

*Ear digging, picking, and scratching are pleasurable activities observed worldwide across various cultures and countries. However, these actions can cause problems in the ear. Therefore, it is important to raise awareness about these issues.*



The hole in the middle of the outer ear is called the ear canal, which leads up to the eardrum. The outer third of the ear canal is mobile and made of cartilage covered with skin, hair, and wax glands. The inner part is bony and covered with a thin layer of skin. As with skin elsewhere on the body, the skin in the ear canal sheds cells.

Wax glands secrete earwax, which is a normal and healthy substance, not a sign of dirt. Initially yellow, the wax darkens to brown and eventually black upon exposure to air.

This wax, along with shed skin cells, moves toward the outer opening of the ear, where it can be cleaned. Earwax is beneficial as it is antibacterial, antifungal, and oily, helping to repel water.

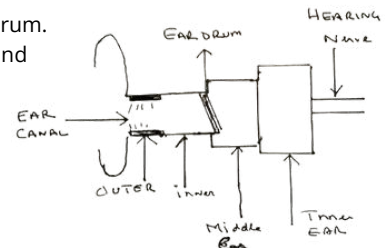
Water will certainly enter the ears while bathing unless you wear an ear cap or shower cap. To remove water from the ears, simply place a towel over the ear opening, tilt your head, and pull the ear upward and backward.

This method helps expel the water. Only the outer part of the ear, which can be cleaned with a cloth or towel, needs attention.

**However, many people use cotton buds or tissues, which is not advisable.**

Using cotton buds can push the wax deeper into the ear canal, making it harder to remove. People often use various items to try to clean their ears, but this can lead to ear problems.

In view of these, it is advisable to leave the ear alone. Constant self-cleansing of the ears may cause dryness of the ear canal skin, leading to increased itching and long-term narrowing of the ear canal.

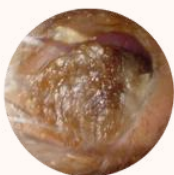


**FIGURE A**  
Ear anatomy



**FIGURE B**

A commercially available ear pick, a toothpick, cotton buds, a hair clip, a safety pin, and an unfolded paper clip are common ear cleaning tools.



**FIGURE C**

Earwax impaction can cause a blockage and hearing loss, often necessitating a visit to a healthcare professional for removal. If the wax is hard, it may require softening with ear drops or oil to make it easier to remove through suction.



**FIGURE D**

The retention of a cotton bud (Q-tip) in the ear requires a visit to a healthcare professional to remove it using small forceps.



**FIGURE E**

An outer ear infection, which causes ear pain, will require a course of antibiotics, ear drops, and the avoidance of water entering the ears.



**FIGURE F**

An outer ear fungal infection causing ear pain will require ear cleansing by suction to remove the fungus, the use of antifungal ear drops, and avoidance of water entering the ears.



**FIGURE G**

Injury to the eardrum or damage to the ear canal skin will require antibiotics to prevent infection and avoidance of water entering the ear. Typically, healing will occur with proper care. ■

# INNOVATION IN ARTHROPLASTY SURGERIES



Figure 1: The author with the three major robotic-assisted arthroplasty systems.



Figure 2: Dr. Khairul Anwar Ayob



## BY DR. KHAIRUL ANWAR AYOB

MBBS (NSW), MSOrth (UM)

Fellowship in Hip and Knee Surgery (CNUH, Korea)

Fellowship in Lower Limb Arthroplasty and Reconstruction (GCBJS, Australia)

Currently serving at University Malaya Medical Centre, Kuala Lumpur

## A Brief History

Humanity has benefited immensely from advances in modern medicine, specifically in terms of improving life expectancy as well as the quality of life. However, with a longer average lifespan, degenerative diseases are becoming increasingly common maladies. Osteoarthritis was previously a disease affecting those at the terminal end of their lives or those with previous trauma to the affected joints. Unfortunately, we are seeing more and more individuals experiencing this condition, the reasons for which are multifactorial.

Historically, those who suffered from osteoarthritis were rendered immobile, often bedbound, as any movement could result in severe pain from the joint. Surgeons developed a medical procedure, considered to be a game changer for these patients in the 1960s: the so-called hip arthroplasty surgery. In this procedure, the diseased bone, which is bare of cartilage, is removed and replaced with an artificial or prosthetic joint, comprising metal and polyethylene. Subsequently, the knee replacement prosthesis was designed in the 1970s.

These surgeries achieved resounding success and transformed the lives of many patients, relieving what was debilitating pain and enabling them to rediscover their ability to move and care for themselves. The hip replacement was rightfully deemed the “surgery of the 20th century” by *Lancet*, the prominent medical journal. Although successful, these surgeries are not without their drawbacks. Challenges in manufacturing, as well as surgical technique, have limited the longevity of these prostheses, requiring repeat surgeries, which are often more expensive and challenging than the initial one. Since its introduction, there have been numerous efforts to perfect the art and science of joint replacements, with varying amounts of success. Some modifications have been adopted as normal practice, while others have proven to be catastrophic, leading to prosthesis recalls and re-operations for damage control.

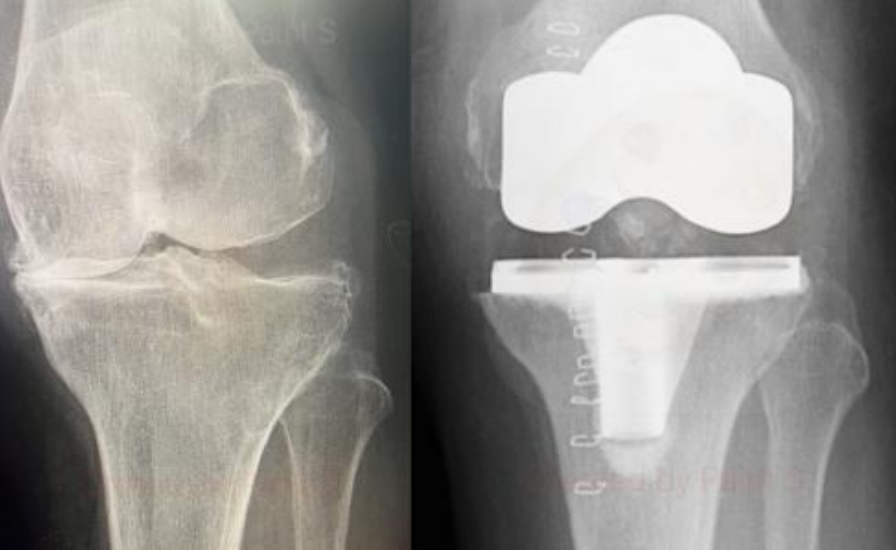


Figure 3: X-rays of the knee. On the left is a typical appearance of a knee with osteoarthritis, which shows bone on bone contact, indicating that the cartilage has worn out. On the right is a post-operative X-ray showing an implant has replaced the diseased part of the knee.

## The Current Landscape

The so-called advancements in hip and knee arthroplasties revolve around improving what is already a very good procedure. As more of these procedures are performed, the medical community is able to gain a deeper understanding of what works and what doesn't for these surgeries. In order to prolong the survivorship of these artificial joints (longer duration before there is a need for re-operation), the major causes of prosthetic failures were dissected and improved upon.

One prevailing issue with performing a joint replacement is that there can be inconsistencies in the position and alignment of these prostheses. Conventionally, the surgery is performed manually, relying on surgical jigs and guides which are often reused, as well as the surgeon's ability to sense and balance the tension in the knee ligaments. In surgeons who perform these surgeries very regularly, the position and tension can be consistently recreated in almost every case.

Despite this, humans, being imperfect beings, with off days and fatigue, will inevitably face periods where the "surgical feel" can be unreliable. Robotic-assisted arthroplasty surgeries were developed to:

- Improve the accuracy of prosthesis placement, making surgical jigs redundant
- Provide an objective output of the ligament tension of the knee, displayed as numbers on a screen

These machines help the surgeon before and during the surgery itself. Even before the patient goes on the operating table, they allow us to plan the position, size, and alignment of the prosthesis. This improves surgical efficiency, freeing up the mind of the surgeon and nursing staff to focus on more pertinent issues during the surgery.

During the surgery, these robots assist the surgeon in consistently achieving the perfect position and alignment. Once the surgical cuts are done, the optical trackers, which are essentially high-tech rulers, are also able to verify the accuracy of the cuts, giving the option to the surgeon to redo the cuts if necessary.

The tension of the ligaments plays a crucial role in the successful functioning of the prosthetic joint. As mentioned before, conventionally this is assessed through "feel." With the presence of optical trackers, the computer is able to translate the tension of the ligament to a specific distance, which can be used by the surgeon to fine-tune the position, size, and alignment of the prosthesis, ultimately aiming to achieve the most suitable balance for the patient. With the use of the trackers, we are also able to document the range in which the knee moves, which would then be a good target for the physiotherapist to aim for in the rehabilitation process.

Of course, if you ask any orthopedic surgeon whether it is essential for the surgery to be performed with robotic assistance, the answer would be a resounding no, as it should be. The presence of a robot during the surgery only helps in the fine-tuning of some of the surgical parameters, but a bulk of the surgery such as the incision, access through the tissues, irrigation, and closing up is still performed by the surgeon. Similar to the use of a GPS while driving, it is not essential; however, it does help you stay on the right path while allowing your mind to focus on more important things, i.e., distance from other cars on the road, possible hazards, etc.

However, as a final word, it is essential to point out that one of the "returns" of using the robotic system is the data it provides at the end of the surgery. Further analyzing these data points may provide us with a more comprehensive understanding of what works and what does not when it comes to artificial joints. The patients who were operated on with this technology also tend to recover earlier, with less pain, as there is less violation of the tissues. I am personally an advocate for this technology, as the promise that it shows is immense, even if there is still a long way to go. ■

# ARTIFICIAL INTELLIGENCE IN HEALTHCARE



**BY DR SIVA RAO SUBRAMANIAM**  
Dr.Int.Med (UKM), MD (UPM)  
BSc. (Hons) (Med), BSc. (Hons) (Biomed)  
Resident Internal Medicine Consultant  
KPMC Puchong Specialist Hospital

*“Studies have shown that AI is often able to outperform human experts, especially in picking up small lesions, and it is fatigue-proof.”*

**Artificial intelligence (AI)** has become a part and puzzle of our daily life. From a simple phone algorithm to complex predictive analysis, such as in tactical military combat, AI has become an indispensable asset in perfecting these fields. In healthcare, AI is no longer separable in many medical fields, especially after the Covid pandemic. The need for limited human interaction during movement control has promoted and evolved many fields of medicine, especially those that can use AI as a human replacement. A few of the fields in medicine, particularly, have become the starting point of AI involvement, and it is slowly involving many other fields that were thought impossible just a decade ago.

One of the well-established and already functioning fields in medicine that has involved AI heavily is medical imaging and diagnosis. AI-powered algorithms have proven remarkable accuracy in reporting X-rays, MRIs, and CT scans. Studies have shown that AI is often able to outperform human experts, especially in picking up small lesions, and it is fatigue-proof.

Another field in medicine is where AI improves precision medicine, where it could process multiple factors of patients, vary personalized treatment and management plans with the least possible negative outcomes. This involves the choice of antibiotics using the latest guidelines and personalized treatment plans based on possible interactions with multiple patient comorbidities. AI is also able to process possible drug-to-drug interactions in patients with multiple drug exposures.

Besides that, AI is also becoming a great help in identifying the most possible or promising molecules and compounds that can pave the way for new drugs and antibiotics, especially a much-needed approach in ever-growing drug-resistant organisms. This indeed saves time and hastens the discovery of new drugs and therapies that otherwise take decades to formulate.

Beyond clinical benefit, AI has also become important in patient monitoring and management, especially in large setup institutions. For example, it can predict the waiting time of the patient. In some algorithms, it can even suggest alternative medical services if the waiting time seems to jeopardize the critically ill patient.

While the potential of AI in healthcare seems undeniable, some quarters are constantly concerned about the authority given to a system that can be either hacked or become rogue on its own. It may sound like something out of Hollywood movies, such as Terminator, but the possibility is there when the capability of the AI involves more than self-learning and sometimes the full mandate of decision-making is given to an AI without human involvement as a checkpoint.

Looking ahead, the future of AI is here to stay for sure. However, the adoption of AI into every aspect of human life should have its limitations and should be made sure not to overtake human authority. Clearly, we should also not become overly dependent on it.

## QUESTION & ANSWER WITH DR. SIVA RAO



*How has AI specifically impacted your daily practice as an Internal Medicine Physician? Can you share any personal experiences or examples?*

“Of course, AI has definitely impacted my day-to-day practice. Patients use ChatGPT to get a first consultation on what to expect before seeing me. In fact, they have some idea of potential diagnoses as well, of course a list of possibilities rather than a definitive diagnosis.”

*In your opinion, what are the most significant advancements in AI that have improved patient care in internal medicine?*



“For internal medicine, list of possible diagnosis and options of treatment is the main findings patient use.”



*How do you see AI assisting with the management of complex cases involving multiple comorbidities in your practice?*

“In my opinion, AI has not been able to fully impact internal medicine practices. There are still many individual situations, conditions, and regional variations that AI cannot account for. For patients with multiple comorbidities, AI can provide initial input, but human variation is something AI cannot predict or address.”



*What are the challenges or limitations you face when integrating AI into your diagnostic and treatment processes?*

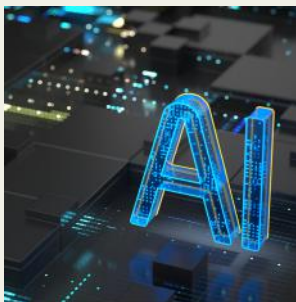
"AI still has a lot of room for improvement. Human factors, especially variations among patients and subtle symptoms, are not something AI can handle well at the moment."

*How do you address concerns about AI reliability and patient safety in your practice, especially regarding AI decision-making in patient care?*



"AI cannot be used to determine patient management but only as a guide. Just like AI-driven cars, the responsibility still falls into human hands. This is because there are so many subtle symptoms, conditions, and variations in human responses in medicine. Humans are not binary; therefore, AI can assist but not dictate management and treatment." ■

## TOP 4 TIPS FOR MASTERING CHATGPT: UNLOCKING YOUR POTENTIAL



### 1 Be Clear and Specific

Provide detailed context and clear instructions for better results.

- Before: "Tell me about income and capital gain taxes."
- After: "What are the key differences between income tax and capital gains tax? Put it in a table for easy comparison."

### 2 Use Step-by-Step Prompts

If you have a complex task, break it down into smaller steps. This helps the AI follow your logic and respond in a structured way.

- Before: "How do I create a website?"
- After: "What's the first step to create a website? Then, what comes after that?"

### 3 Experiment with Rephrasing

Slight changes in wording can lead to different, sometimes better, answers.

- Before: "What's the best marketing strategy?"
- After: "Can you suggest the most effective digital marketing strategies for a startup in the healthcare industry?"

### 4 Set the Role or Tone

You can instruct the AI to adopt specific roles (like a teacher, consultant, or creative writer) or tones (formal, casual) to suit your needs.

- Before: "Explain AI to me."
- After: "Explain AI to me as if I'm a 10-year-old" or "You are a business consultant. Can you explain AI to me like I'm an investor?"



# Enhancing Patient Safety Through Effective Disinfection in Healthcare Settings: A Focus on Infection Prevention and Control (IPC)

In healthcare environments, Infection Prevention and Control (IPC) plays a crucial role in safeguarding patient health and reducing the occurrence of healthcare-associated infections (HAIs). These infections, often resulting from improper hygiene and disinfection practices, can lead to severe consequences for both patients and healthcare professionals. Among the core components of IPC is the proper disinfection of medical equipment and surfaces, a practice that helps eliminate harmful pathogens and mitigates the risk of infection spread.



**Harpreet Kaur**  
(MPH.BSC.RN)  
Director  
Infection Preventionist  
Nexus Health Solution Sdn Bhd

## Key Criteria for Selecting Disinfectants

When choosing disinfectants, healthcare facilities must evaluate several critical factors to ensure optimal effectiveness in preventing infections:

- **Kill Claims:** The disinfectant must effectively target the pathogens commonly present in healthcare settings. For example, *Staphylococcus aureus* and *E. coli* are frequent culprits of HAIs, so the disinfectant must effectively neutralize these microorganisms.
- **Contact Time:** The product must maintain its efficacy for the necessary duration. Contact times for various pathogens may range from 30 seconds to 10 minutes, and proper application of the disinfectant is vital for thorough disinfection.
- **Safety Considerations:** It is essential to assess the toxicity of the disinfectant and ensure its compatibility with surfaces and instruments. This protects patients, staff, and the equipment used in healthcare procedures.



Nexus Health Solution (NHS) is a dynamic healthcare consulting company dedicated to assisting medical facilities and professionals through training and consultation.

## The Role of Disinfectants in IPC

Disinfectants are chemical agents used to destroy microorganisms like bacteria, viruses, fungi, and spores on non-living objects. Their efficacy in infection control depends on the active ingredients that disrupt the cellular structure of harmful pathogens. The correct choice of disinfectants is critical, as inappropriate selections may result in ineffective cleaning and elevate the chances of HAIs.

## Incorporating Environmental, Social, and Governance (ESG) Principles into IPC

In recent years, the integration of Environmental, Social, and Governance (ESG) components has become increasingly important in healthcare, particularly in infection prevention and control practices. By aligning IPC strategies with ESG principles, healthcare organizations can not only protect patient health but also contribute to broader social and environmental goals.

**Environmental Considerations:** Choosing eco-friendly disinfectants minimizes negative impacts on the environment without compromising on cleanliness and safety standards.

**Social Impact:** Effective IPC practices safeguard patients, healthcare workers, and the broader community by reducing the transmission of infections. Social responsibility in IPC also involves ensuring that healthcare workers are adequately trained and equipped with the right tools to maintain hygiene standards.

**Governance:** Strong governance frameworks are necessary to establish clear policies and protocols for infection prevention. These policies ensure compliance with regulatory standards and promote a culture of accountability and safety in healthcare organizations.

## Conclusion

Effective infection prevention and control through proper disinfection practices is crucial in healthcare settings to minimize the risk of healthcare-associated infections and protect patient health. By selecting appropriate disinfectants based on established criteria, such as kill claims, contact time, safety, and ease of use, healthcare organizations can significantly reduce HAIs. Moreover, integrating ESG components into IPC strategies contributes to safer healthcare environments, greater sustainability, and enhanced social responsibility. ■



**UMONIUM<sup>38</sup>**  
master in disinfection



## DO NOT REPLACE A BIOLOGICAL HAZARD WITH A CHEMICAL RISK



**NO RISK FOR  
NURSES**



**NO RISK FOR  
PATIENTS**



**NO RISK FOR  
INSTRUMENTS**



**NO RISK FOR  
PLANET**

Nay Lab Sdn Bhd, a pioneering disinfectant company based in Malaysia, has emerged as a game-changer in the realm of disinfection solutions.

We provide the cutting-edge medical device high-level disinfectant **UMONIUM38** with pH-neutral formulation and non-corrosive<sup>1</sup>, non-toxic<sup>2</sup> and environment friendly features.<sup>3</sup>

We carry wide range of disinfectants to meet different application, directly benefiting the Central Sterile Supply Department (CSSD), Operation Theatre, Endoscope and Infection Control Departments.

We personalize our recommendation to meet our customer's needs and provide continuing medical education CME and training.

As part of an E.S.G approach, Nay Lab Sdn Bhd is committed to put products on the market that are risk-free for the operator, patient, equipment and the environment.

Our belief is there should be no compromise on quality and safety especially in healthcare setting.



Malaysia healthcare facilities will benefit from using a disinfectant that eliminates all chemical risk to improve the sterilization process, ensuring the safety for both patients and operators.

Our product specialists are available to perform the product presentations with appointment.

**Discover this Innovative Disinfectant!** 



1) Ann Zelderloo, I.Paulus Jul 2002 pH-neutral, non-corrosive test: Conclusion: 7 days at room temp in fluid. Umonium disinfectant can be qualified as "non-corrosive" towards common materials if used in standard conditions.

2) Emmanuelle Loheac, Lopez Eladio Jun 2016. Mouse Embryonic Assay test Summary of observations - Batch 13C01-RD2 hasn't toxic effect on embryos. Embryos test and control have been placed in incubator at 37°C in 5% CO

3) BfB IESPM Protocole OECD-301B. Test details: Biodegradability according to OECD 301B = 81.1%. Waste water treatment Ref 2004/MPT/R/194-L23BB Result: Non-Toxic

# TOP IN HEALTH & WELLNESS CSR AWARD

For their unwavering commitment to the betterment of society and community, the Malaysian Association for Thoracic and Cardiovascular Surgery (MATCVS) has been honoured for their significant contributions to transforming healthcare in Malaysia. Their innovative initiatives in specialist training and advocacy reflect a deep dedication to improving health outcomes for individuals and communities, setting a remarkable standard for corporate social responsibility in the health and wellness sector.

## Dato' Dr Basheer Ahamed on behalf of MATCVS

**"Never doubt that a small group of thoughtful committed individuals can change the world. In fact, it's the only thing that ever has."** — Margaret Mead.

*This profound statement resonates deeply with the journey of the Malaysian Association for Thoracic and Cardiovascular Surgery (MATCVS) and its unwavering commitment to transforming healthcare in Malaysia.*

*In 2014, a critical shortage of specialists became apparent in Malaysia's healthcare landscape. The local Masters programs for specialist certifications were inadequate, having produced only 7,000 specialists in 40 years, while the nation faced a projected need for 28,000 by 2030. In Cardiothoracic Surgery, which involves surgery of the heart, aorta, lungs, and chest, there was no local Masters training program, and no structured training in the specialty. Due to an absence of a clear career pathway, very few doctors went into the specialty.*

**As a result, the country was severely short of Cardiothoracic Surgeons. This gap threatened the quality of care available to Malaysians, highlighting the need for innovative solutions to enhance medical education and training for aspiring specialists.**

*Recognizing this urgent need, MATCVS, representing cardiothoracic surgeons, worked with the Ministry of Health (MOH), the Academy of Medicine of Malaysia, and various other specialist associations to initiate the training of specialists through the parallel pathway. The training pathway was approved by the Ministry of Health and received funding from the federal government. This initiative allowed talented medical officers to pursue specialist training locally through collaborations with internationally recognized institutions such as the medical and surgical royal colleges of the UK, Ireland and Australia. The training programs offered cover a broad range of specialties, including in Cardiothoracic Surgery, Urology, Anesthesiology, Pediatrics, Internal Medicine, and Family Medicine, amongst others.*



*In Cardiothoracic Surgery, MATCVS facilitated the organization of the parallel pathway training together with the Ministry of Health and the Royal College of Surgeons of Edinburgh, and also involving Institut Jantung Negara (IJN) and University Malaya Medical Centre (UMMC) who provided sponsorship for their doctors to train in the specialty. Four doctors entered specialist training in Cardiothoracic Surgery through the parallel pathway in 2016, two of whom were sponsored by IJN, one by UMMC and another by the Ministry of Health. Thereafter, a further 4-5 doctors would enter the Cardiothoracic Surgery parallel pathway training program every year.*



*The parallel pathway training became a beacon of hope, helping to meet the needs of the country for specialists, and helping to ensure that promising young doctors were able to specialize in their chosen fields. The parallel pathway program, linked to overseas institutions, is conducted within MOH facilities, and also at IJN and UMMC, and more recently at University Kebangsaan Malaysia (UKM), with the specialist exit examinations conducted by recognized overseas institutions such as the medical and surgical royal colleges of the UK, Ireland and Australia, reinforcing the high global standards, quality and recognition of their training.*

*However, the path to progress faced significant hurdles. In 2022, the Malaysian Medical Council (MMC) decided not to recognize the specialist qualifications awarded by several of the Royal Colleges of the U.K., Ireland and Australia, and removed the mechanism through which those with these qualifications could be registered on the National Specialist Register (NSR). Thousands of specialists in training and those who had already graduated as specialists were affected, unable to practice and serve their communities. The workforce planning which had been done to ensure sufficient specialists to serve the needs of the country was thrown into disarray. Left unresolved, the country would face a critical shortage of specialists in many specialties including in Cardiothoracic Surgery, amongst others.*





#### **MATCVS Executive Council 2023 - 2025**

L-R: Dr Syed Nasir Syed Hassan (Committee Member), Dato' Dr Mohd Hamzah Kamarulzaman (Committee Member), Dato' Sri Dr Mohd Ramzisham Abdul Rahman (Committee Member), Dato' Seri Dr Jeswant Dillion (Vice President), Dato' Dr Basheer Ahamed Abdul Kareem (President), Prof Dr John Chan Kok Meng (Hon Secretary), Mr Sivakumar AVL Sivalingam (Hon Treasurer), Dr Abu Yamin Bin Khamis (Committee Member)

Determined to avoid a nationwide catastrophe, and also to advocate for the specialists in training and those who had recently completed specialist training, MATCVS, led by its President Dato' Dr Basheer Ahamed and its executive council, worked tirelessly with the MMC, the Ministry of Health, the Academy of Medicine of Malaysia, the Malaysian Medical Association, and other professional specialist associations to resolve the technical issues preventing the MMC from registering the specialists. However, the technical challenges seemed insurmountable and the highest levels in the Ministry of Health were unable to resolve the technical problems as the Medical Act was not clear that the parallel pathway training could be recognized.

A pivotal moment occurred in December 2023 when YB Datuk Seri Dr Dzulkefly Ahmad was reappointed as the Health Minister. He was already aware of the parallel pathway training for specialists as he had previously been the Health Minister from 2018-2020. He set about to resolve the non-recognition of the parallel pathway specialist training and prioritized it as an urgent national issue to be resolved within the first 100 days of his appointment.

Dr Dzulkefly very quickly initiated consultations with all stakeholders including with the MATCVS to better understand the issues at hand. The Attorney General's Chambers (AGC) were consulted and provided input into the interpretation of the law. It turned out that the Medical Act was unclear not just with regards to specialist training through the parallel pathway but the local Masters training programs also did not comply fully with the Medical Act. The implications were huge and the sustainability of specialist training in the country was thrown into uncertainty. The issue sparked a nationwide debate on safety, quality and regulations surrounding specialist training in Malaysia through the parallel pathway and university programs. Consultations and discussions involving all stakeholders continued for the next three months. **It eventually became clear that the only long-term sustainable solution was to amend the Medical Act.**

Under the leadership of Dr Dzulkefly, amendments to the medical act were drafted by the Attorney-General's Chambers and following a further period of consultation, the amendments were tabled in parliament and passed by both houses of parliament within three months.



The amendments regularized specialist training in the country through both the parallel pathway and the university masters programs, ensuring its standards, quality, and its sustainability. The efforts of the MATCVS and others in resolving the challenges with the training of specialists has positively impacted all medical specialties engaged in parallel pathway training in Malaysia, ensuring the continued provision of high quality specialist services in the country, and opening the doors further for numerous promising medical officers of high caliber across various fields to pursue specialization in their chosen field.

As this chapter closes, the MATCVS looks to further pioneer new horizons, focusing on the development of paramedics, allied healthcare professionals and supporting specialist staff. Their first initiative involves organising workshops and specialized symposiums at the 32nd Annual Congress of the Association of Thoracic and Cardiovascular Surgeons of Asia (ATCSA) and the 24th Annual Scientific Meeting of the MATCVS. It does this while also continuing to promote the highest standards in the practice of surgery of the heart, lungs, chest and aorta. This year's scientific sessions are truly of an international standard involving renowned experts from throughout the world and joint symposiums with international specialist organizations such as the Royal College of Surgeons of Edinburgh, the International Society of Minimally Invasive Cardiac Surgery (ISMICS), and the Indian Association of Cardiovascular and Thoracic Surgeons (IACTS). This commitment underscores MATCVS's belief that teamwork is vital in cardiothoracic surgery, where collaboration amongst specialists is essential for optimal patient outcomes.

The journey of MATCVS serves as a testament to the power of determination and the collective strength of dedicated individuals. Their efforts not only transformed the landscape for healthcare professionals in Malaysia but also paved the way for a healthier future for all Malaysians. The courage and commitment demonstrated by this small group of surgeons, alongside the decisive leadership of the Health Minister, will echo through time, ensuring that quality healthcare remains accessible to every citizen. Ultimately, MATCVS exemplifies how a dedicated group can inspire change, demonstrating that even in the face of challenges, doing the right thing can lead to a brighter future for all. ■

# TOP HEALTH & WELLNESS MANAGEMENT AWARD

**Lim Thung Xuan**

BYOND 28 CONFINEMENT CENTRE

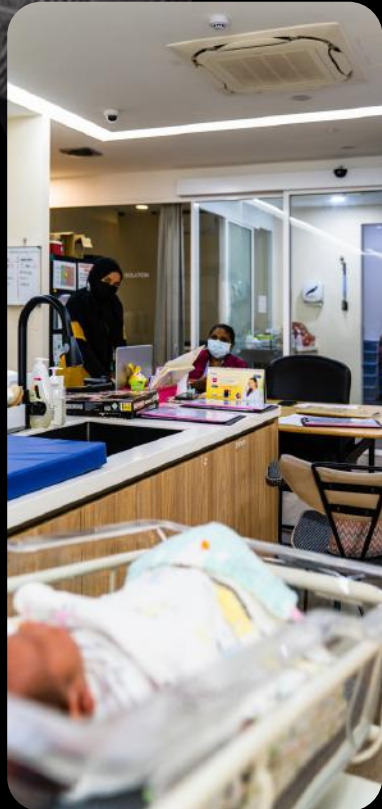
*Byond28 Confinement Care's journey to winning the Top Health & Wellness Management Award reflects its dedication to redefining postnatal care in Malaysia. Established in 2020, at the peak of the Covid-19 pandemic, Byond28 Confinement Care was built with a clear mission: to offer holistic healthcare, emotional support, and education to new families, with an approach that extends beyond the conventional 28-day commercial confinement period.*

*Through innovation and a strong focus on family well-being, Byond28 Confinement Care has emerged as a leader in the industry, earning recognition with this prestigious award.*

*At Byond28 Confinement Care, our philosophy is to provide more than just a standard confinement experience. Typically, a new mother spends two days in the hospital after childbirth, followed by 28 days at a confinement centre. However, our goal is to create a nurturing environment that builds a strong foundation for both parents and newborns. The postnatal period is not just about recovery; it's about fostering long-term physical, emotional, and psychological wellness. This vision of comprehensive care was a key reason behind our selection for the Top Health & Wellness Management Award.*

*Opening our doors just two days before Malaysia's national lockdown in March 2020, Byond28 Confinement Care faced significant challenges in its early months. Despite the uncertainties brought on by the pandemic, our resilience allowed us to continue providing essential postnatal care.*

*Over the past four years, we've not only navigated these pandemic-related obstacles but have also confronted broader industry challenges, particularly the lack of government regulation. Byond28 Confinement Care has been instrumental in addressing these gaps, positioning itself as a pioneer in the confinement industry.*





A key factor behind our award win is our development of standalone confinement centres. Many centres in Malaysia operate within high-rise buildings, which pose safety risks, noise issues, and a lack of privacy for new families. Byond28 Confinement Care took a different approach by creating standalone centres that offer a safer and more exclusive environment. Our facility, featuring a ground-floor baby room, allows for faster evacuation in case of emergencies—a distinct advantage over high-rise locations. This commitment to safety, practicality, and exclusivity sets Byond28 Confinement Care apart and was a key consideration for the award.

In addition to our emphasis on safety, Byond28 Confinement Care has shown a strong commitment to education. We believe that empowering parents with knowledge is essential for their well-being. This is why we pioneered a dedicated lactation department—something uncommon in the confinement industry.

While most centres rely on their nursing staff or employ only one or two lactation counsellors, Byond28 Confinement Care has taken it further by collaborating with Latch Lab to provide a lactation department consisting of nearly six on-site lactation counsellors in rotation. This ensures that mothers receive consistent expert breastfeeding support and guidance.

**Our focus on comprehensive care and education played a significant role in our selection for the Top Health & Wellness Management Award.**

Our high standards of care have earned us recognition beyond our facility. In June 2023, Byond28 Confinement Care was invited by Selangor local councils to represent confinement centres at a seminar on newly established industry guidelines. Hosted by Majlis Bandaraya Subang Jaya (MBSJ), this event allowed Byond28 to contribute valuable insights and advocate for better regulation, further solidifying our role as leaders in the industry.

Winning the Top Health & Wellness Management Award is a testament to Byond28 Confinement Care's dedication to setting new benchmarks in the confinement care industry. Our focus on safety, education, and holistic wellness reflects our ongoing mission to provide exceptional care for Malaysian families long after the confinement period ends. This recognition inspires us to continue raising the bar and offering the next generation of families the best start possible. ■

# BEST HI-TECH HEALTH & WELLNESS AWARD

*Siti Manisah Binti  
Mohamad Sarujee, RTTP*

BRAND GEEKS INC



*Brand Geeks Inc is a pioneering force in the health and wellness industry, empowering providers to grow through cutting-edge technological innovations. The company's expertise lies in integrating advanced emerging technology tools including AI to help brands connect with their ideal audience, create impactful strategies, and enhance productivity.*

*One of the core approaches Brand Geeks Inc employs is the utilization of technology to elevate marketing efforts. Tools like Cleve, Mimin and Public.io enable brands to effectively reach patients, acting as a matchmaking service between healthcare providers and their target audience. The company's AI advancements, supported by industry leaders such as Mesolitica, OEMS Intipakar, and Beseek, provide healthcare with a cognitive upgrade, reshaping how care is delivered and consumed.*

*Collaborating with universities and research institutions, Brand Geeks Inc also brings scientific discoveries into real-world applications. This collaboration ensures that innovations are not just theoretical but serve practical purposes in solving healthcare challenges. The focus on merging scientific excellence with technology demonstrates the company's commitment to driving transformative change in the health and wellness space.*

*In addition to technological innovation, Brand Geeks Inc's marketing initiatives have been instrumental in helping numerous companies, the most prominent being MedKad (with 75,000 users and over 4,000 healthcare providers), build strong brands and connect meaningfully with the healthcare community. The company's work with Adqlo, MedAds, Mimin, Howuku, Sushivid and more than 20 tech solutions has supported the growth of over 250 businesses, particularly Micro, Small and Medium Enterprises (MSMEs). A key milestone was the implementation of the DALIA TurbochargeMyBrand 2023 program in collaboration with Malaysia Productivity Corporation, which successfully onboarded 100 MSMEs, driving adoption of marketing technology in the healthcare sector.*

*Building on this momentum, the DALIA Turbocharge AI'Spark 2024 program aims to support AI innovators, including Mesolitica, OEMS Intipakar, Beseek, Pixlr, Cleve, Mimin and Lekir Tech, in onboarding MSMEs with AI solutions to boost productivity. This program, supported by Brand Geeks Inc's extensive insights into market readiness, commercialization, and technology diffusion, continues to expand the impact of AI in health and wellness.*

*Key indicators guiding success in the health and wellness domain include sales growth, efficient marketing (reducing advertising expenditure), database expansion and various matrices to measure solutions to identified issues and aspirations for growth. Brand Geeks Inc actively collaborates with experts in health and wellness, inviting them as innovation partners. This collaboration facilitates the refinement of strategies and fosters demand for healthier solutions. The company's commitment is not just to observe outcomes but to enact meaningful transformations in the industry.*

*Ultimately, Brand Geeks Inc's commitment to advancing the health and wellness sector goes beyond technology. By strategically aligning innovation with practical applications and meaningful collaborations, the company is not only observing industry changes but actively shaping them. Through its transformative work, Brand Geeks Inc continues to contribute to the ongoing evolution of healthcare, making a significant impact on both providers and patients. ■*



# BE LEGENDARY NEVER ORDINARY

Brand Geeks Inc is a boutique branding and marketing consultancy founded on the intersection of strategy, creativity and technology to impactfully Nurture Legendary Brands That Change the World.



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## INNOVATION ADOPTION FOR INDUSTRY



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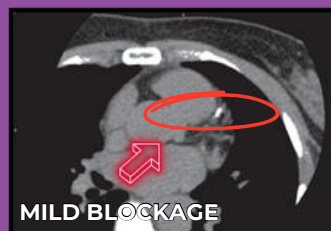
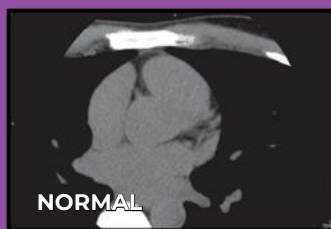
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# UNDERSTANDING THE DIFFERENCE

## CALCIUM SCORE

- A CT scan that **measures the amount of calcified plaque** in the coronary arteries.
- It uses a **non-contrast CT scan** to quantify calcium deposits, which are then used to calculate a score.
- A **higher score** indicates a **higher risk of future cardiac events**.

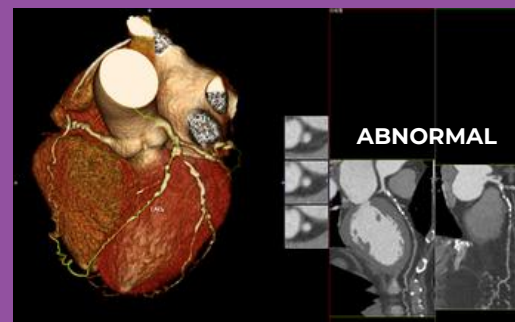
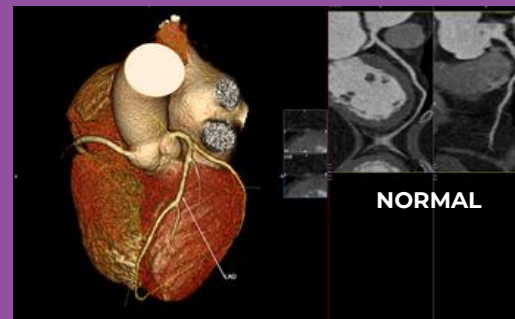


**Who?** should perform this test?

- Those who are **35 years old and above**
- **Family history** of heart disease
- Past or present **smoker**
- History of **high cholesterol level, diabetes** or **high blood pressure**
- **Overweight** and **inactive lifestyle**

## CT ANGIOGRAPHY

- A CT scan captures **detailed images** of the coronary arteries.
- It uses intravenous **contrast dye to highlight blood vessels**.
- This allows a physician to **evaluate blood flow** and identify any **narrowing or blockages due to plaque build-up**.



**Who?** should perform this test?

- Those who are **45 years old and above**
- **Positive calcium scoring**
- **Family history** of heart disease
- Past or present **smoker**
- History of **high cholesterol level, diabetes** or **high blood pressure**
- **Overweight** and **inactive lifestyle**



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**iHEAL**  
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KUALA LUMPUR

# HOW ERGONOMIC SLEEP SOLUTIONS ENHANCE HEALTH AND WELLNESS

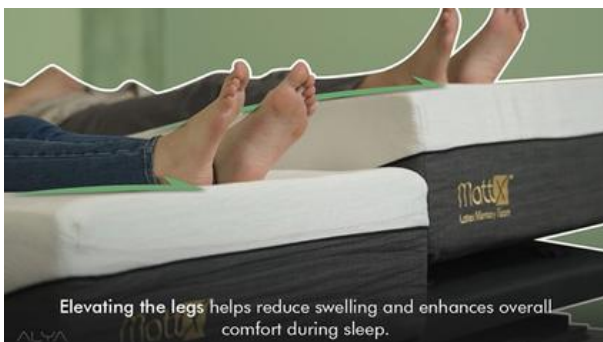
In today's fast-paced world, the quality of our sleep is often compromised, leading to various health issues. Stress, long work hours, and poor sleeping habits can contribute to restless nights and fatigue. Fortunately, ergonomic sleep solutions have revolutionized the way we approach rest, offering significant benefits for health and overall wellness.

Ergonomic sleep solutions are designed to provide optimal support and comfort by conforming to the body's natural curves. These solutions include adjustable beds, specialized mattresses, and pillows engineered to support proper spinal alignment. Maintaining this alignment is crucial for reducing pain and discomfort, particularly in the neck and back regions. Proper alignment ensures that the spine is supported in its natural curvature, preventing strain and promoting relaxation. This balance is essential for achieving restorative sleep.



One of the most significant benefits of ergonomic sleep solutions is the relief they provide to individuals suffering from snoring or sleep apnea. These conditions can disrupt sleep and negatively affect overall health. Ergonomic solutions often feature adjustable sleeping positions that allow users to elevate their upper bodies. This elevation helps keep the airways open, reducing the incidence of snoring and alleviating sleep apnea symptoms. The improved airflow leads to a more restful night's sleep, with fewer interruptions and better overall sleep quality.

For individuals battling acid reflux or GERD, ergonomic sleep solutions offer a non-invasive way to manage symptoms. Keeping the head elevated can prevent stomach acids from flowing back into the esophagus, reducing nighttime discomfort and allowing for a more peaceful sleep. This simple adjustment can make a significant difference in the quality of rest for those dealing with these conditions.



Post-surgery patients also benefit from ergonomic sleep solutions. The ability to adjust sleeping positions aids in recovery by minimizing pressure on surgical areas and promoting a more comfortable healing process. Adjustable beds, in particular, can create a supportive environment that enhances comfort and facilitates faster recovery.



Chronic conditions such as arthritis and fibromyalgia can be managed more effectively with ergonomic sleep solutions. These conditions often cause pain and stiffness, which can be alleviated through a supportive sleeping environment. Ergonomic solutions are designed to accommodate the specific needs of individuals with such conditions, providing targeted support and comfort that helps reduce pain and improve sleep quality.

## “Quality sleep is crucial for managing stress..”

Stress reduction is another important advantage of ergonomic sleep solutions. Quality sleep is crucial for managing stress and maintaining mental and physical health. By creating a comfortable and relaxing sleep environment, ergonomic solutions contribute to lower stress levels. This not only enhances sleep but also promotes overall well-being, making it easier to cope with the demands of daily life.

Ergonomic sleep solutions play a vital role in enhancing health and wellness. By addressing issues such as spinal alignment, snoring, circulation, acid reflux, post-surgery recovery, and chronic pain management, these solutions can lead to improved sleep quality and overall well-being. As we continue to prioritize our health, integrating ergonomic sleep solutions into our nightly routine can be a significant step toward achieving a more restful and rejuvenating sleep experience.

Disclaimer: While ergonomic sleep solutions can provide significant relief and improvement in comfort, it is important to consult with a healthcare professional or specialist if you are experiencing serious symptoms related to chronic pain, sleep apnea, GERD, or any other health issues. Professional medical advice is essential for proper diagnosis and treatment. ■

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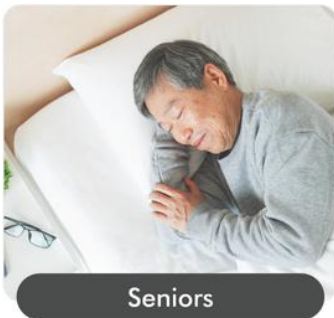
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# UNDERSTANDING PROCESSED FOODS: THE NOVA CLASSIFICATION EXPLAINED TO IMPROVE HEALTH OUTCOMES WORLDWIDE



**BY DR. ASYRUL IZHAR BIN ABU BAKAR**  
PhD in Food Science and Technology, UPM

“That old saying, "eat less processed food,"...”

That old saying, "eat less processed food," keeps popping up. But what exactly is processed food? What are the definitions of ultra-processed and minimally processed foods? What effects does eating processed food have on our bodies? Nowadays, many people are unclear about what constitutes processed food and what does not.

An increasingly popular idea in recent years has been to implement a system of food coding and classification based on processing levels. One such classification method, named "NOVA," has become increasingly influential.

The NOVA system, created by a group of Brazilian academics, is a framework for classifying foods according to the level of industrial processing they undergo. It offers a holistic perspective on the current food landscape, illuminating everything from fresh vegetables to highly processed goods found in supermarkets. By reviewing the four NOVA groups and the types and purposes of the industrial processes that characterise them, you can easily grasp the distinctive qualities of ultra-processed foods and the health risks associated with their consumption. Want to get a clearer picture? Take a look at the table below, and let's dive into the NOVA classification system.

NOVA FOOD CLASSIFICATION			
<p><b>1</b></p> <p>Unprocessed or Minimally Processed</p>	<p><b>2</b></p> <p>Processed Culinary Ingredients</p>	<p><b>3</b></p> <p>Processed Food</p>	<p><b>4</b></p> <p>Ultra-Processed Food</p>



## NOVA 1 UNPROCESSED FOODS

In NOVA 1, the term "unprocessed foods" is used interchangeably with "natural" raw materials that are sourced from a variety of sources, including plants (e.g., fruits, leaves, seeds, tubers, roots), animals (e.g., muscles, offal, eggs, milk), fungi, algae and water.

Thus, it is evident that raw meals aren't necessarily edible; for instance, some ingredients need to be cooked to make sure they're safe to eat and fully digest.

These ingredients are considered natural or unprocessed since they can be easily transformed into tasty cuisine at home.

A minimally processed food is one that has undergone only the most minimal processing, which may include drying, crushing, grinding, fractioning, filtering, roasting, boiling, non-alcoholic fermentation, pasteurization, refrigeration, chilling, freezing, vacuum-packaging and the removal of any undesirable or inedible parts.

These procedures are put in place to make naturally occurring foods more suitable for storage, to ensure their safety, to make them edible, or to enhance their flavour. Many unprocessed or minimally processed foods are prepared and cooked as dishes or meals at home or in restaurant kitchens, often in combination with processed culinary ingredients.



### NOVA 2 | PROCESSED CULINARY COMPONENTS

Group 2 of the NOVA classification includes processed culinary components. These consist of condiments such as plant oils, animal fats (like butter), sugar, syrup, honey, starch, and salt. They are made from NOVA 1 items that have been extracted and refined using specific methods, including pressing, grinding, milling, and refining. Because they typically contain only one macronutrient in a highly concentrated form (often sugar or fat), these items have imbalanced nutritional values. Therefore, instead of viewing them as standalone foods, think of them as components of healthy and tasty meals you can create at home or on the go. Products in this category are typically mass-produced or made by small, artisanal businesses rather than by individual consumers. To be clear, this category does not include any items that have undergone further processing, such as hydrogenated fats (margarine) or modified starches.



### NOVA 3 | PROCESSED FOODS

In NOVA 3, the term "processed foods" refers to industrially produced goods that have had salt, sugar, oil, or other ingredients (NOVA 2) added to either their natural or slightly processed state (NOVA 1) in order to maintain or enhance their flavour. They are considered variations of the original foods and are made directly from those foods. Typically, they are eaten alongside or as an accompaniment to dishes that feature natural or less processed ingredients. Simply put, most processed foods require only two or three ingredients. Examples include freshly made cheese, canned vegetables, fruits in syrup, and dried or canned fish.



### NOVA 4 | ULTRA PROCESSED FOODS

The term "ultra-processed foods" (UPFs) refers to formulations of ingredients, primarily for exclusive industrial use, that result from a series of industrial processes, many of which require sophisticated equipment and technology. Common ingredients found in ultra-processed foods include sugar, protein, and oil derivatives (such as high-fructose corn syrup, maltodextrin, protein isolates, and hydrogenated oil), as well as cosmetic additives (such as colours, flavours, emulsifiers, thickeners, and artificial sweeteners) that are added to make the final product more appealing. UPFs include breakfast cereals, savoury snacks, reconstituted meat products, frankfurters, pre-packaged frozen dishes, soft drinks with or without sugar, distilled alcoholic beverages, and vitamin supplements. The ultimate goal of ultra-processing is to create branded, long-lasting, easily consumable, aesthetically pleasing, and monetarily lucrative food products that can replace all other food groups. Ultra-processed food items are often heavily advertised and come in visually appealing packaging.

A growing number of studies are examining the correlation between food processing levels and health effects using the NOVA classification. Epidemiological research has linked the consumption of ultra-processed foods (UPFs) to obesity, heart disease, high blood pressure, metabolic syndrome, depression, and cancer. Additionally, the consumption of UPFs could elevate cortisol levels, resembling chronic stress, which can directly affect the function of the hippocampus and frontal lobes, thereby impacting memory and executive function performance. When it comes to protecting one's health, this is the group of foods to avoid and eliminate from one's diet. By consuming ultra-processed foods, we make less room in our diets for healthier options, which typically have high levels of saturated fat, salt, and sugar. Concerns about potential adverse health consequences have also been raised regarding the additives included in certain foods.

It is important to note that the NOVA method isn't solely about rules and restrictions or cutting out foods. It's about being mindful and balanced. Make fresh, healthy foods a top priority, be conscious of how you consume processed foods, and reduce your intake of ultra-processed options. By learning about these categories, you can make better, more balanced food choices. As the saying goes, "Prevention is better than cure." ■



### MALAYSIAN MEDICAL SUMMIT 2024 ORGANIZED BY MMI

Cyberjaya, September 7-8 – **Malaysian Medics International (MMI)** successfully organized The Malaysian Medical Summit (MMS) 2024 at the University of Cyberjaya, with Health Expert as the media partner.

MMI, founded in 2013, is an independent, student-led organization that connects Malaysian medical students globally. It provides a platform for students to network, stay informed on healthcare issues, and develop essential skills for a medical career in Malaysia, guided by its pillars: connect, educate, and cultivate.

# CONGENITAL ADRENAL HYPERPLASIA

## Screening For This Complex Genetic Disorder Is Still Unavailable



**Dr Anasufiza Habib**  
Head, Biochemistry & Genomics Research Centre, Institute for Medical Research, National Institutes of Health, Malaysia



**Raja Hasyidah Raja Bongsu**  
Scientist, Endocrine Unit, Biochemistry & Genomics Research Centre, Institute for Medical Research, National Institutes of Health, Malaysia

References:  
1 (Raja Hasyidah Raja Bongsu et al, Malays J Pathol 2024)  
2 (NMRR 21-063)

Congenital adrenal hyperplasia (CAH) is a rare genetic endocrine disorder due to a mutation of CYP21A gene which causes abnormal steroid metabolism. As in other rare genetic diseases, there is little awareness of this condition amongst the public.

There are more than 7,000 rare diseases either genetic or non-genetic in the USA. However, the statistics are unknown in Malaysia.

Amongst the common rare genetic diseases in Malaysia are the mitochondrial disorders, lysosomal storage disorders, urea cycle disorders and amino acid disorders. However, data for the prevalence of CAH is scarce. Very little research was conducted for congenital adrenal hyperplasia (CAH) in Malaysia.

### **Most cases of CAH in Malaysia presented late during adulthood with irreversible complications.**

CAH has many types, but the most common type is due to the 21-hydroxylase enzyme deficiency which causes accumulation of a steroid biomarker, 17-hydroxyprogesterone which can be detected in the blood. In this type of CAH, the 21-hydroxylase enzyme deficiency causes a **deficiency of steroid hormones, cortisol and aldosterone** which are essential for the normal metabolism and the regulation of salt and water in the body.

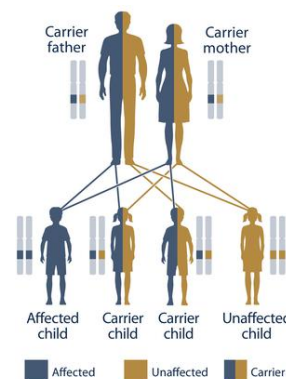
The second most common clinical presentation after salt wasting type is the simple virilizing form. This type of CAH presents at birth with ambiguous genitalia with difficult gender assignment. Unfortunately, some of the affected babies will be **wrongly assigned into male phenotype** prior to karyotyping analysis of the sex chromosome which later revealed a female genotype.

Other clinical presentations are absence of menstruation, precocious puberty and infertility. Whilst the salt-wasting type causes high mortality, most cases were not diagnosed either due to lack of awareness of the health practitioner or more commonly due to the unavailability of diagnostic facilities.

### **The simple virilizing type causes abnormal sexual development and often causes psychological problems and stigma to the affected patients and families.**

Delayed diagnosis of CAH may not only impact the patients and families, but it could set a unique challenge to the healthcare providers in delivering a proper treatment.

CAH is inherited by autosomal recessive, meaning the abnormal gene is carried by a person who is perfectly healthy without symptoms, but capable of transmitting the abnormal gene to his/her biological child. The risk of having an affected child is 25% or 1 in 4 risks.



A universal newborn screening program detects treatable medical conditions in newborns early, enabling timely medical intervention to prevent life-threatening conditions and reduce mortality.

A positive screening result means a child is at risk of having a disease during any time in life. Some children may not be sick even though they were tested positive during the newborn screening due to the avoidance of precipitating factors after an appropriate counseling and education after laboratory results were obtained and conveyed to the parents.

Universal newborn screening differs between countries in the world. The number of conditions screened varies between countries. Newborns can be screened with only a few drops of blood. Newborn screening allows identification of individuals at risk of developing disease. A positively screened individual needs further tests to confirm the presence of a condition. Further tests usually need further blood taking and a genetic test may be needed.

To date, CAH universal newborn screening was already implemented in >30 countries worldwide including Asian countries. **However newborn screening for CAH is currently unavailable in Malaysia.**

Currently, newborn screening in Malaysia consists of Congenital Hypothyroidism and Glucose 6-phosphate deficiency (G6PD). There is also newborn hearing screening at selective hospitals,

Retrospective cross-sectional research conducted between 2021 to 2022 in Institute for Medical Research (IMR) Kuala Lumpur had found an alarmingly high prevalence of CAH in Malaysia<sup>1</sup>. A subsequent collaborative pilot study on CAH in Malaysia between Institute for Medical Research, Hospital Putrajaya, Hospital Tunku Azizah and Hospital Selayang had just completed recently, and data analysis is ongoing.<sup>2</sup> ■



# LOCUM APPS

Locum Apps revolutionises healthcare staffing by offering **hospitals & clinics** an innovative platform to manage **locum doctors, dentists, nurses, and allied health professionals**. With our technology, you can ensure optimal staffing while providing clinical staff with flexible opportunities to grow and work on their terms.

## LOCUM APPS AT A GLANCE

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- job assignment
- in-app timers
- cancellation reasons

### Merchandise



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### We're growing!

Major cities, here we come!

Penang and Johor have seen us, now it's time for Perak and Melaka!



## INNOVATION IN HEALTHCARE

Healthcare is undergoing a significant transformation. Malaysian startups are in a prime position to drive innovation and scale solutions, tapping into a growing market eager for tailored healthcare or more flexible solutions. WeAssist was able to share about Locum Apps at the KL20 Summit, on **Advancements & Opportunities in Healthtech**.

Tiffany Khoo, Founder and CEO of WeAssist, highlighted the role of technology in this evolving space. "From any kind of management perspective, what everyone is trying to do is figure out how to get a better outcome with fewer resources. AI is a great tool for doing that because it allows us to calculate the exact amount of resources required to achieve a certain goal," she noted.

Locum Apps helps hospitals and clinic manage their manpower, while providing flexibility to clinical staff.





# What's your ideal career path?

## How comfortable are you stepping into a new work environment and building relationships quickly?

- A. Effortless - I'm comfortable to approach my new managers and colleagues
- B. Takes time - Would prefer having a familiar friend to warm up
- C. Challenging - I tend to shy away from meeting with new people. It will take time for me to open up to someone

## Can you multitask and adapt to unexpected changes in your schedule?

- A. Easily handle it - I enjoy multitasking while staying organised with my workload
- B. Find it stressful - I prefer a structured routine where there's routine in place
- C. Neutral - I can manage but prefer a predictable workload

## Do you thrive on challenges and see them as opportunities for growth?

- A. Thrill-seeker: I will seek challenges and learn from them.
- B. Steady pace: I prefer a consistent workload without major ups and downs.
- C. Balanced approach: I can handle challenges but prefer a mix of routine and new tasks.

## Are you confident in your ability to work independently?

- A. Highly confident - I'm not afraid to work autonomously and take charge
- B. Team player - I prefer working as part of a team
- C. Neutral - I can work independently but prefer some direction

## How do you handle uncertainty when it comes to your work?

- A. Thrive on change: I see uncertainty as a chance for growth and take the necessary steps first before starting.
- B. Flexible approach: I can adapt to change and take charge, but I will carefully think before starting work.
- C. Need assurance: I will seek clear guidelines and direction from the team before starting the work.

## Are you comfortable with a variable income and periods without work?

- A. Financially flexible: I'm comfortable with a variable income and can manage my finances effectively.
- B. Can adapt: I can adjust to financial fluctuations for a short period of time but prefer a stable income.
- C. Need financial stability: I prefer a consistent income and find financial uncertainty challenging.

If you choose more A, you are classified as type A, and the same applies to the other options.

### A Natural Freelancer

You're a natural-born locum! Your skills and enthusiasm are a perfect match for the fast-paced and exciting world of locum work. With your talent and dedication, you're set to thrive in this exciting field. Don't miss out on the incredible locum opportunities that await you!

**A**

### Do Both

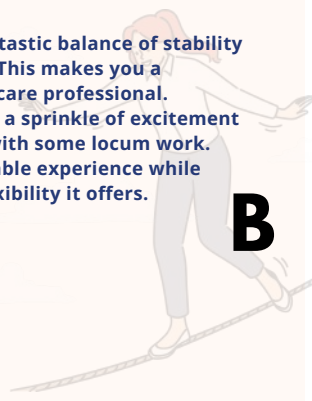
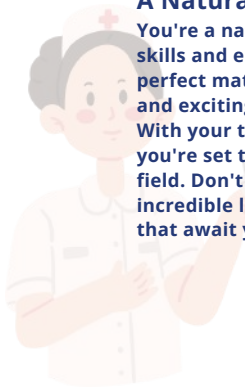
You've got a fantastic balance of stability and adventure! This makes you a versatile healthcare professional. Consider adding a sprinkle of excitement to your career with some locum work. You'll gain valuable experience while enjoying the flexibility it offers.

**B**

### Grow with your company

You're an invaluable asset in your current role! Your dedication and expertise are truly admirable. Embrace your strengths and continue to excel in your field. Perhaps explore opportunities for specialisation or leadership to further enhance your career path in your role.

**C**



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