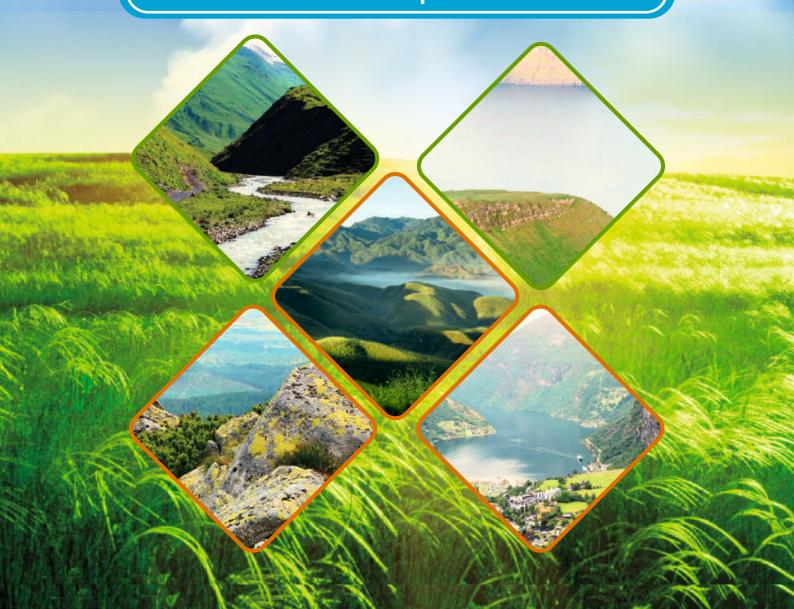


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Theme: Environmental Impact on Human Health



मेरा स्वास्थ्य मेरी जिम्मेदारी

मुख्य संपादक की कलम से

मैं स्वयं एक चिकित्सक होने के नाते यह मानता हूँ कि चिकित्सक का धर्म है देश के नागरिकों की उत्तम सेहत न की केवल रोगियों का उपचार, किन्तु क्या यह धर्म केवल चिकित्सकों, स्वास्थ्यकर्मियों, स्वास्थ्य मंत्रालय और सरकार तक सीमित है? जी नहीं, इस में सबसे अधिक जिम्मेदारी तो स्वयं देश के नागरिकों की है। आगे बढ़ने से पूर्व डॉ० शब्द का अर्थ जानना अति आवश्यक है। डॉ० शब्द का अर्थ है पढ़ाना। इस का अभिप्राय यह है कि एक डॉ० का प्राथमिक कर्तव्य किसी को भी यह समझाना है कि आपको कैसे अपनी सेहत का ख़्याल रखते हुए दवा से दूर रहना है न की दवा के लम्बे नुस्खे लिखना। मैं मानता हूँ कि चिकित्सक अपने इस धर्म से कुछ हद तक दूर हो गए हैं किन्तु क्या नागरिक भी अपनी सेहत की जिम्मेदारी स्वयं पर ले रहे हैं? चिलए दो छोटी-छोटी किन्तु महत्वपूर्ण बातों पर चर्चा की जाए, इन सभी बातों का सीधा सम्बन्ध हमारे स्वास्थ्य से है और इन का ध्यान रखने से मनुष्य स्वयं को रोग से दूर रख सकता है।

इनमें सर्व प्रथम है हमारा भोजन व भोजन के सेवन की विधि।

बात अगर भोजन की करें कि हमें क्या खाना चाहिए और क्या नहीं, स्वास्थ्य लाभ की दृष्टि से संसाधित (प्रोसेस्ड) खाद्य पदार्थ (जिन में अधिक मात्रा में नमक, चीनी हो और पिरिक्षक रसायन अथवा प्रिजर्वेटिव्स का मिश्रण हो) इंसान की सेहत के लिए उचित नहीं हैं। ये संसाधित खाद्य पदार्थ बहुत हद तक गैर-संचारी रोगों (जैसे की मधुमेह (डायबिटीज), उच्च रक्तचाप (ब्लड प्रेशर) इत्यादि के लिए जिम्मेदार हैं। इसलिए आवश्यक है कि हम अधिक से अधिक प्रौष्टिक (फल, सब्जी, चना, मूँगफली इत्यादि) अथवा घर में पके हुए भोजन का ही सेवन करें। अब अगर बात सेवन की विधि की करी जाए तो यह पाया गया है कि आज कल अधिकतर लोगों के पास भोजन के लिए समय ही नहीं है, कोई ५ मिनट में भोजन समाप्त करता है तो कोई अधिक से अधिक 90 मिनट में।

हम सभी के लिए यह जानना आवश्यक है भोजन करते समय भूख की तृप्ति कम से कम २० से ३० मिनट का समय लेती है, इस समय में कोई इंसान २ रोटी भी खा सकता है और २० भी। शीघ्रता से भोजन करने के तीन नुकसान देखने को मिलते हैं। सर्वप्रथम है आवश्यकता से अधिक मात्रा में भोजन का सेवन, जो न केवल पाचन तंत्र के लिए हानिकारक है अपितु मोटापे का भी प्रमुख कारण है। द्वितीय है, बिना चबे हुए भोजन का भीतर पहुंचना जिस के कारण पाचन तंत्रिकाओं को अधिक और लम्बे समय तक परिश्रम करना पड़ता है। और तृतीय है भोजन की ग्लायसेमिक इंडेक्स का बढना।

शीघ्रता से भोजन के सेवन से हमारे रक्त में ग्लूकोज की मात्रा तेजी से बढ़ती है जिससे हाइपर-इंसुलिनीमिया (Hyperinsulinemia) होता है और जो अंततः डायबिटीज और उक्त रक्तचाप का कारण बनाता है। इसलिए अति आवश्यक है की हम भोजन का सेवन शान्ति से और धीमे धीमे चबाते हुए करें। आखिर हमें दांत चबाने के लिए दिए हैं

न की हाथी की तरह दिखाने के लिए। शीघ्रता से भोजन करने का एक निराला व आध्यात्मिक पक्ष और भी है की हम भोजन के स्वाद का आनंद लेते ही नहीं और निःस्वाद भोजन कभी भी व्यक्ति को स्वास्थ्य लाभ नहीं दे सकता।

दूसरी महत्वपूर्ण बात हमारी नींद और सवेरे उठने से सम्बंधित है।

सवेरे उठने के सही समय को ब्रह्म मुहूर्त का नाम दिया गया है और इसे अक्सर हिन्दू धर्म से जोड़ा गया है। ब्रह्म मुहूर्त सूर्योदय से करीब एक घंटा पूर्व होता है। सच्चाई यह है की ब्रह्म मुहूर्त का एक वैज्ञानिक महत्त्व है। मानव शरीर की रचना और उसकी क्रिया सूर्योदय से सूर्यास्त के कालचक्र के लिए निर्मित की गई है। हमारे अंतः स्नावी अंगों (एंडोक्राइन ऑर्गन्स) से हॉर्मोन्स के रिसाव के लिए ब्रह्म मुहूर्त में उठना अत्यंत लाभकारी है और श्रेष्ठ स्वास्थ्य के लिए आवश्यक भी। अनेक रोग रात्रि में देर से सोने और सवेरे देर से उठने के कारण होते हैं। निद्रा सम्बंधित रोगों का मुख्य कारण भी यही है। भारतवर्ष में सोने का सही समय गर्मियों में ९ से 90 बजे के बीच और सिर्दियों में 90 से 99 बजे के बीच का माना जा सकता है। इस समय सो कर एक व्यक्ति आराम से ६ से ७ घंटे की नींद के उपरान्त ब्रह्म मुहूर्त तक उठ सकता है।

अब अंत में आपका ध्यान कुछ आध्यात्मिक बातों की ओर दिलवाना चाहूंगा।

हम कदाचित कृतज्ञता के महत्त्व को भुला बैठें हैं, जिस के कारण हम जीवन में हर प्रकार से असंतुष्ट रहते हैं। हमें कृतज्ञता के महत्त्व को जानने की आवश्यकता है। इसमें सबसे पहले हमें मनुष्य जीवन के लिए कृतज्ञत महसूस करना चाहिए। इसी से संतुष्टि की सभी कड़ियाँ जुडी हैं और इसी में मानव जीवन का रहस्य भी छुपा है। जीवन में संतुष्टि और असंतुष्टि का सीधा सम्बन्ध मानसिक तनाव से है। जरा सोचिये, आज कल मानसिक रोग क्यों बढ़ रहे हैं? इसका प्रमुख कारण यह है कि हम कृतज्ञता भूलते जा रहे हैं, जिसके कारण हम हर समय असंतोष और असमंजस की स्थिति में रहते हैं। इसका अर्थ यह नहीं की इच्छाएं और आकांक्षा का होना गलत है किन्तु यह भी सत्य है कि हर इच्छा और हर आकांक्षा का पूर्ण होना संभव नहीं है। इसका सीधा तात्पर्य श्रीमद भगवद गीता की सीख से है जो हमें यह सिखाती है की कोई भी कर्म केवल स्वयं की इच्छा पूर्ति के लिए नहीं करना चाहिए।

इन सभी बातों को स्वयं के जीवन में अपनाने का प्रयत्न कीजिये और देखिये, क्या आप अपने जीवन में और सेहत में कुछ अंतर महसूस करते हैं?

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जलवायु परिवर्तन व मानव स्वास्थ्य

डॉ. अनुपम प्रकाश (आचार्य) मेडिसिन विभाग लेडी हार्डिंग मेडिकल कॉलेज एवं सम्बंधित अस्पताल, नई दिल्ली

पिछले कुछ वर्षों से देखा जा रहा है कि सर्दियां कुछ अधिक कठोर हो गई हैं लेकिन उनकी अवधि कम हो गई है । ऐसे ही गर्मी भी भीषण हो गई है और असहनीय सी प्रतीत होती है । लोग पहाड़ों पर बर्फ देखने जाते हैं लेकिन वहां बर्फ की मात्रा बहुत ही कम दिखती है । बर्फ से ढके पहाड़ों की जगह कुछ ही चोटियों पर बर्फ नजर आती है व दिन का तापमान मैदानी इलाकों के शहरों से भी अधिक प्रतीत होता है।

आमतौर पर सर्दियों में उत्तर भारत में कभी—कभार बारिश होती है, लेकिन इस बार सबने ध्यान दिया होगा कि बारिश मूसलाधार हुई और कई दिनों तक लगातार हुई । ऐसे ही अखबारों में छपा सबने ध्यान दिया होगा कि जनवरी में कश्मीर में बर्फ नहीं पड़ी । ऐसे ही कई भूरखलन की खबरें पिछले एक दशक में हुई है । वर्षा ऋतु में पहाड़ों पर मूसलाधार बारिश हुई है व मैदानी इलाकों में बाढ़ का प्रकोप झेलना पड़ा है । ऐसे ही समुद्र तट के किनारे मछुआरों को भी मछलियां पकड़ने में कितनाई का अनुभव हुआ है। उपरिलिखित सभी पर्यावरण संबंधित घटनाओं को अगर एक सूत्र में पिरोया जा सकता है, तो वह केंद्रित होता है?

''जलवायु परिवर्तन व विश्व तापमान का बढ़ना''।

जलवायु परिवर्तन व वैश्विक तापमान बढ़ने से बीमारियों की संभावनाएं बढ़ गई हैं, बीमारियों के नए लक्षण उभर कर आ रहे हैं, और नई बीमारियां भी आ रही हैं जैसे कि हम लोगों ने कोविड —19 को देखा । मनुष्य की बीमारियों से लड़ने की क्षमता भी निरंतर घटती जा रही है ।

अगर इन सब कितनाईयों से हमें गुजरना पड़ रहा है व आए दिन दिक्कत का सामना करना पड़ रहा है तो क्या कभी हमने सोचा है कि हम इस जलवायु परिवर्तन को कैसे रोक सकते हैं और हम इस में क्या योगदान कर सकते हैं?

जो चीज वैश्विक स्तर पर हो रही है उसको रोकना असंभव सा लगता है लेकिन फिर भी योगदान तो किया ही जा सकता है। और योगदान करना ही सबसे जरूरी है क्योंकि बूंद—बूंद से ही सागर बनता है। इसी कारण से अगर हर मनुष्य अपना योगदान करे तो हम जरूर जलवायु परिवर्तन की रोकथाम करने में सफल होंगे। मनुष्य की बढ़ती आबादी पर नियंत्रण कर हम पर्यावरण के संसाधनों का उचित रूप से प्रयोग कर सकते हैं वह इन संसाधनों को आने वाली पीढ़ियों के लिए बचा सकते हैं।

ऊर्जा स्रोत जो पर्यावरण के लिए हानिकारक नहीं है व जो नवीकरणीय है जैसे कि सौर ऊर्जा, पवन ऊर्जा, जल—विद्युत ऊर्जा, इन सभी के इस्तेमाल से हम पर्यावरण परिवर्तन के वेग को कम कर सकते हैं । पर्यावरण को बचाने के लिए वनों का संरक्षण और पेड़—पौधों का बचाव करना अत्यंत आवश्यक है । हर मनुष्य को वृक्षारोपण करना चाहिए व वृक्षों को कटने से बचाना चाहिए।

हम लोगों को छोटे—छोटे कदम अपनी रोज की दिनचर्या में अपनाने चाहिए। विद्युत उपकरणों को जिस समय प्रयोग नहीं कर रहे हों, बंद कर देना चाहिए और जब कमरे या घर से बाहर निकलें तब उपकरणों को बंद करके जाना चाहिए। सार्वजनिक यातायात का अधिक उपयोग करना चाहिए और मेट्रो की सुविधा और कार पूल भी करने की कोशिश करनी चाहिए।

पेट्रोल, डीजल, केरोसिन जैसे ईंधनों का इस्तेमाल कम से कम करना चाहिए और सीएनजी या पीएनजी वाले उपकरणों या सौर ऊर्जा से चलने वाले उपकरणों का प्रयोग बढ़ाना चाहिए । प्लास्टिक का भी उपयोग कम से कम करना चाहिए और प्रदूषण फैलाने वाले कार्यों को त्यागना चाहिए ।

मेरा मानना है कि अगर हम सब एक—एक कदम भी बढ़ाएंगे और छोटे—छोटे कार्य भी करना शुरू करेंगे तो मिलकर जलवायु परिवर्तन की रोकथाम में मदद कर पाएंगे।

🍧 आने वाली पीढ़ियों के लिए जीवन के लिए अनुकूल शुद्ध वातावरण और शुद्ध पेयजल हमारा सबसे महत्वपूर्ण उत्तरदायित्व है। 🤊

आज एक कदम बढ़ाएं, कल का भविष्य उज्जवल बनाएं।



Exposome and Precision Environmental Health: A Synergic Way Forward

Dr. Shubhra Joshi, EIS Officer (cohort 10), NPCCHH, NCDC

Environment and health have been going hand in hand for centuries, since man first understood the concept of health and disease. Paracelsus, in sixteenth century stated, "The dose makes the poison", meaning anything can be toxic if present at high enough levels. This also applies to human health, wherein not only the dose but exposure also plays an important part. Exposure to the environment, chemicals, toxic materials have a deleterious effect on human health. Scientists have long established the relationship between human health and environment and have been trying to understand its complex, dynamic, and multifaceted structure.

Traditional studies in environmental health have predominantly concentrated on a narrow set of environmental stressors at population level, lacking the ability to unravel the intricacies and variations in personalized environmental exposures.

Scientists have since started working on individualistic approach towards environmental effects on health, thus emanating the concept of "exposomes". First coined by Dr. Christopher Wild in 2005 to introduce his concept as a complement to the human genome, it now represents a paradigm involving the study of the health effects of cumulative environmental exposures and concomitant biological

responses from 'conception until death'. The exposome is composed of the entire set of environmental exposures a man encounters throughout his life course. This encompasses exposures of all types, ranging from individual-level exposures that arise from exo- and endogenous processes (e.g., radiation, diet, physical activity, infectious agents, psychosocial stress) to general exposures that impact populations (e.g., climate, air quality, urban environment. Complementing the exposomic research, a new field of medicine has now been emerging called Precision Environmental Medicine. Analogous to Precision Medicine, where treatments are tailored to the individual and specific disease, Precision Environmental Health has the aim of individualized risk assessment and interventions to prevent disease. The overarching aim is to minimize the negative health impacts of environmental exposures present in the air we inhale, the water we consume, and the food we ingest. This involves identifying individuals with unique susceptibilities to environmental threats and implementing precise, targeted, and efficient prevention strategies.

Envision a future where a simple blood test could unveil whether you've encountered potentially harmful environmental chemicals.



Subsequently, your healthcare provider would propose strategies to mitigate such exposure and forestall any detrimental health effects. Picture a personal monitoring device capable of disclosing your individual responses to environmental variations induced by climate change. Although climate change is a global phenomenon, its impact can differ for each person, such as facing temperature extremes or inhaling pollutants from drought-induced fires, leading to distinct reactions. Precision environmental health holds the potential to comprehend and pinpoint these personalized responses, offering tailored interventions to enhance health and stave off diseases.

Going forward, the concept of exposomes and Precision environmental medicine is still new and poses various challenges to researchers like assessing the "totality" of exposure for an individual. Several large scale exposome initiatives have already been launched in recent years, including EXPOsOMICS, the HELIX project and the European Human Exposme Network (EHEN)who are operating on these challenges and the future looks promising for a salubrious well-being.



Some of the Personal monitoring devices and geospatial technologies which were useful in understanding the effect of personal environmental exposures.

Courtesy: Rima Habre, Associate Professor, USC

66 Any number of monitoring devices cannot lower one's own responsibility towards environment conducive to life and optimum health. >>











Electronic Media and Learning To Speak: Unravelling The Connection

Dr. Swapna N, Professor of Speech Pathology, AllSH, Mysuru

This is a story of young girl named Minni, who was born in a well-off family. Minni's mother and father were working in an IT company. As they were constantly busy with their jobs, they kept their son occupied and entertained with electronic devices such as television and mobile. Hence, Minni's early years were spent in front of screens, watching cartoons and playing interactive games.



While her parents thought that they were doing the right thing by providing her expensive gadgets, they did not realize its effect on Minni's speech and language development. At the age of three years, Minni was unable to speak in sentences and was struggling to communicate. She would throw tantrums out of frustration of not being able to speak. She did not have any friends as well. Her parents were worried and took her to a speech therapist, who diagnosed her with a delay in speech and language development, caused due do excessive exposure to electronic media.

Minni's parents were advised to reduce the time spent with the gadgets, reduce screen-time and involve her in activities that involved face-to face interaction. They were asked to spend quality time playing and talking to their child. They were asked to name things when using them, read storybooks and narrate stories to her every day. They also were asked

to have meaningful conversations with her, asking her questions and encouraging her to express in words and small sentences.

With time, Minni's speech and language abilities began to improve and now she was able to speak in complete sentences and communicate her needs effectively. Her parents were happy owing to the progress seen in their child and realised the negative effects the electronic media on the child's development. Her parents continued to monitor the screen time and engaged her in outdoor activities and social interactions. She now had many friends and would play and speak to them. The parents also limited their own use of electronic devices, setting a positive example for their daughter. Minni also performed well in school and her parents were proud of her achievements. They were grateful that they had consulted a speech therapist at the right time and followed the instructions provided sincerely.



This story reinforces the fact that young children require quality time from parents. Thrusting mobiles

into their little hands could lead to several problems at a later stage. Playing and talking to your babies is the most valuable gift that you could give to your babies.

It is hoped that this story would serve as a wake-up call for all parents and raise awareness of the harmful effects of excessive electronic media on the development of speech & language skills in children.

66 Communication with babies is the single most important factor in speech development.

At times, babies and young children communicate only with electronic devices, and when they have difficulties in speech, parents often think their child is either mute or has autism.

It is neither, it is parents' failure to interact with the child.



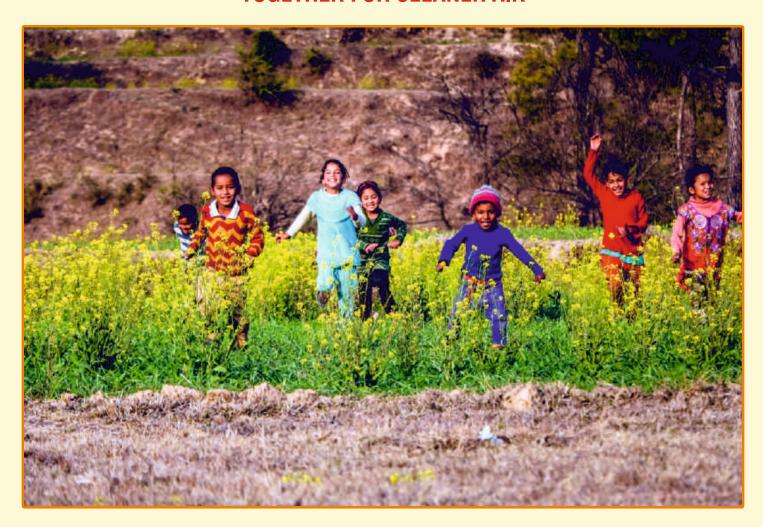
TOGETHER FOR FIGHTING POLLUTION







TOGETHER FOR CLEANER AIR



66 हम सब मिलकर प्रदूषण को मिटाएगें, और अपने पर्यावरण को स्वच्छ बनाएगें।

The effect of the Vani on medical microenvironment and health

Dr. Kavita Gaur, Assistant Professor, Pathology, Lady Hardinge Medical College, New Delhi

Pollution, a multi-headed, modern-day Ravana of sorts, encompasses all agents endangering human health. This includes popular offenders contaminating air, water, land, ambient sound as well as miscreants highlighted recently, such as plastic and radiation. While the above-mentioned factors have potential to shift the body from a state ease to dis-ease, it is pertinent to note that the under-rated agent of speech ("vani") may have substantial potential to harm or nurture well-being.

The human being, a complex tapestry of organs & pathways, seldom functions as an isolated island. Willingly or unwillingly, the environment shall always influence the human mind, body, soul, and sentiment.

A growing awareness of restoring health and fitness has in recent times fostered mushrooming of entire segments of commerce. The intention is simplezeroing in on the most potent concoctions, postures, and packages to reverse environmentally- triggered bodily damage. The focus is clearly on the two obvious domains of health- physical and mental. However, emotional balance (or imbalance) stemming from interpersonal interaction via words, is a frequently neglected micro environmental reality and has direct implications on health.

While other environmental agents may take time to inflict actual injury, words flying around on a day-to-day basis in our surroundings have the most profound effect on our body-both immediate and long-term.

Various scriptural jewels of Indian culture have emphasized the power of speech. The potential of the spoken word to cause distress has been alluded to the Bhagwad Gita (BG 17.15):

अनुद्वेगकरं वाक्यं सत्यं प्रियहितं च यत् । स्वाध्यायाभ्यसनं चौव वाङ्मयं तप उच्यते ।।

words not causing distress, signifying austere speech."Vak-suktam"-the tenth chapter hymn- of the Rigveda ,elevated speech to the level of a goddess. Bhartrihari, an ancient 5th century linguist-philosopher, in his treatise "Vakyapadiya" emphasized heightened consciousness achieved through the mere delivery of words.

Many eons later, in a different hemisphere, English author, GF Northall first used the somewhat contradictory adage -" Sticks and stones may break my bones, but words will never hurt me". This, nineteenth century children's rhyme, used as a clarion call to invoke resilience against bullies, may have now officially lost traction.

Fast forward to today's day and age. In the early 2000's, medical researchers began examining the effect of words on the body. A 2010 study, entitled "Do words hurt?" demonstrated that speaking pain-related negative words activated pain centers within the brain. Further studies shed light on terms used by doctors as part of evaluating their patients, such as "failed on therapy" or "high risk". These routine phrases have been associated with stress hormone release and even increased anxiety in patients recovering after surgery.

While examining the effect of words on diabetic subjects, another scientist stated that, in all fairness, technical phrases with negative hues are not used by physicians with the conscious intention to hurt.

The problem is words overheard by patients, delivered in matter of fact and borderline irritated tones by those administering treatment, potentially amplify stress in already stressful situations.

On the brighter side, words can heal. Employing positive words as a means for therapy has been advocated by the likes of Nobel prize winning neurobiologist-Eric Kandel. The seek, in addition to seeking expert physicians, seek empathy and compassion. Bucket loads of it. This desire for the verbal balm drives patients in hoards to alternative medicinal systems where patients get the patient listening, they desire. Increasing workloads and the strains of providing care at unearthly hours may sometimes make it exceedingly tough to be a pleasant, mouthed Wordsworth. Despite the difficulties, it never harms to try saying the right words at the right time and stringing the right sentences under volcanic pressures of all kinds is an art or as alluded to previously, "vach -shakti". As medical professionals, our interpersonal interaction spectrum or "verbal micro-environment" encompasses a wide range of human beings, both sick and healthy. We are in a delicate albeit responsible position to either aggravate or extinguish "vani pollution".

Words can soothe the painful processes of undergoing biopsies and interventions, keep patients motivated to adhere to medicinal regimes despite side-effects, making the overall process of healing faster. Kind words interwoven with standard care may represent the ultimate therapeutic masterstroke.

Words alone, on the contrary, can never substitute lack of skills and knowledge. Unpleasant ones rob patient trust and can however, render even the most brilliant skills and knowledge to naught.

Most importantly, it takes two to tango. A nightingale toned well-meaning physician doesn't expect to be mobbed by unruly attendants without provocation. Here also, words can salvage situations and breach trust deficits, It never harms to reciprocate wordily civility with medical staff working tirelessly for patient care.

Words of cordiality and respect can help navigate competitive undercurrents in work environments studded with talented peers, juniors and seniors. Words of inspiration can guide medical students, out of phases of overwhelm, words can represent the most transformational yet under-rated influence on environments-both professional and personal. The "subhashit" medical expert is thus, wonderfully placed to heal individuals and de-pollute environments, not only with his medicinal armaments, but also with polite, professional, and nuanced vani. The best part is it is a harmless cost-free intervention.



ऐसी वाणी बोलिए, मन का आपा खोए, औरन को शीतल करे, आपाहु शीतल होए। शब्दों के बाणों की पीड़ा से उभर पाना असम्भव नहीं तो दुष्कर अवश्य है। >>

"आज हमारा है, कल अपनों का होगा"

Ms. Pamposh Pokhriyal, Deputy Director, Dte. GHS

क्या यूँ ही वक्त को हाथ से निकलता देखते जायेंगे आज हमारा है, कल अपनों का होगा जाने कब समझ पाएंगे।

सूखी निदयाँ सूखे झरने असहनीय मौसम, बढ़ता तापमान ऐसे असंतुलित पर्यावरण के दोषी हम ही ठहराए जाएंगे।

आज हमारा है, कल अपनों का होगा जाने कब समझ पाएंगे।

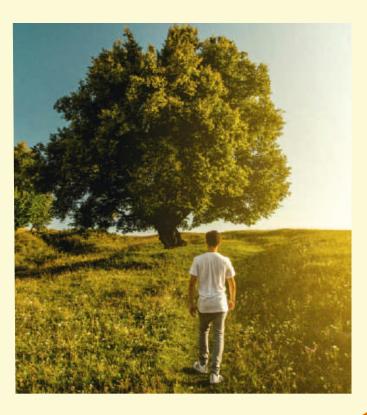
अब भी वक्त है सम्भलना होगा अपनों के लिए खुद को बदलना होगा आबादी पर नियत्रंण करना होगा वनों का संरक्षण करना होगा।

नये ऊर्जा स्त्रोत अपनाने होंगे प्लास्टिक जैसे प्रदूषण प्रयोग से हटाने होंगे तब शायद दोषी न कहलायें और ग्लोबल वार्मिंग से बच जाएं

तो चलो कुछ कदम आगे बढ़ाएं जल, वायु, मिट्टी के संकट को घटाएं

आख़िर सबको मिलकर काम करना होगा अपनों के लिए खुद को बदलना होगा।

आज हमारा है, कल अपनों का होगा। अब तो ये समझना होगा।



The Impact of Environmental pollutants on Reproductive Health

Prof. (Dr.) Manika Agarwal, Professor and Unit Head | Dr. Megha Goyal, PG 2nd year Department of Obstetrics and Gynecology, NEIGRIHMS, Shillong

Infertility is increasing as youngsters spend more time with "mouse rather than spouse". This environmental techno-toxin along with many other environmental pollutants are associated with adverse impact on reproductive health, as difficulty in conceiving, miscarriage, premature low birth weight babies and delayed mental and physical development in babies.

Women should be counselled regarding the ways to reduce exposure to environmental toxins during prepregnancy and pregnancy visits.

Important environmental toxins and their adverse reproductive outcomes along with measures to reduce their exposure are enumerated below-

- 1. Radiofrequency radiation exposure from mobile phone can lead to male and female infertility. It also increases the risk for abnormal fetal development. People should be counselled to use a headset or speaker and not to put cell phone in pocket or under the pillow.
- 2. Nonstick cookware contain chemical coating which can cause decrease in memory. Nonstick cookware should be avoided, if possible.
- 3. Personal care products contain phthalates, which are associated with neurodevelopment disorder and male infertility. Women should use products with-'Fragrance free" labels and products without parabens, oxybenzone and triclosan.
- 4. Pesticides are associated with birth defects, decreased IQ and abortions. Pesticides should not be used in homes, rather situations leading to pest infestations should be avoided as cleaning up spilled food, storing food in tightly closed containers and getting rid of standing water.



5. Cigarette smoking is associated with increased risk of low-birth-weight baby, so pregnant women should avoid both active and passive smoking.



- 6. Paints, water pipes, ceramics contain lead & can lead to lower IQ of the newborn. Women should be counselled to avoid dusting with dry cloth to prevent inhalation of lead. Cleaning with wet cloth or mop is preferable and safer.
- 7. Cleaning agents contain chemicals which are associated with abortion and low birth weight. Homes should be cleaned with non-toxic products.
- 8. Air pollutants are associated with preterm birth & neurodevelopment disorder. Pregnant women should wash hands frequently and avoid outdoor activities during peak time of air pollution.

- 9- Sea food contains mercury, which is associated with decrease in memory, so women should avoid large fish such as shark and sword fish.
- 10- Foam furniture contains chemicals which are flame retardants. These can lead to a decrease in neurological development of baby, including low IQ. So, people should choose foam products labelled "flame retardant free".

Conclusion-

Environmental toxins pose a significant threat to reproductive health. Recognizing the risks, taking preventive measures, and advocating for safe environmental policies are essential steps towards safeguarding reproductive health in the face of an increasingly toxic world.

10 Ways to avoid toxins before, during and after pregnancy

- Radiofrequency radiation exposure (Mobile phones and other electronic devices)
- 2. Non stick cookware
- 3. Personal care products (Phthalates)
- 4. Pesticides
- 5. Cigarette smoking
- 6. Lead
- 7. Plasticizers
- 8. Air Pollutants
- 9. Sea food (Mercury)
- 10. Foam furniture (Flame retardants)



- Use headset or speaker and not to put phone in pocket of under pillow
- Cook on cast iron or stainless steel rather than non stick cookware
- 3. Limit cosmetic use
- 4. Eat fresh, organic foods whenever possible
- 5. Avoid both active and passive smoking
- 6. Use a wet mop when cleaning
- 7. Avoid eating, drinking or storing food in plastics
- 8. Wash hands frequently and avoid outdoor activities during peak time of air pollution
- 9. Avoid eating fish high in mercury like shark and swordfish
- 10. Avoid consumer products with flame retardants

AIR QUALITY INDEX:

Daily information on air quality is shared using an Air Quality Index (AQI). AQI is a useful tool for determining the current level of air pollution within the community. Additionally, AQI helps to provide clear guidance on how air quality may impact health. With the help of this tool, the general public and vulnerable populations can receive advice on air quality to inform how to plan their days, particularly during period of peak pollution.

Not environmental pollutants techno-chemical alone are to blame for everything, let us share some bit of that blame. We have destroyed our hormonal balance by ignoring natural circadian rhythm besides stressing ourselves day in and day out by living life like a never-ending race.

Unveiling the Ayush Approach to Mitigate Environmental Impacts on Human Well-being

Dr. Ramavtar Sharma, R.O (Ayurveda) | Dr. Rupesh Vilas Patil, R.O. (Ayurveda) | Dr.A.Raghu, DDG (Ayush)

In a world where environmental challenges are on the rise, an intricate connection between the health of our planet and well-being of humans cannot be ignored. The environment plays a pivotal role in shaping the health of individuals and communities. Air and water pollution, climate change, deforestation, and excessive use of chemicals have far-reaching consequences on human health. The impact of environmental factors on human health has become a significant concern, prompting a closer look at a holistic approach to mitigation.

Although, the concept of ecosystem has been read by one and all during formative years of life during schooling, we have apparently short memory. In recent years, One Health approach aims to correct this by acknowledging the close association of human, animal, and environmental health. It emphasizes a collective approach as a change in anyone and has a ripple effect on others and ultimately human health.

Harnessing Ancient Wisdom for Environmental Resilience:

Ayush systems, deeply ingrained in understanding environment's impact on health, offer preventive measures and treatments aligned with nature. Ayurvedic practices emphasize detoxification, herbal remedies, and lifestyle modification to counteract environmental toxins. Yoga, with its focus on breathing exercises and stress reduction, contributes to overall well-being amidst environmental stressors.

Cultivating Awareness of Traditional Practices for Sustainable Living.

Mitigating the impact of environmental factors on health extends far beyond medical intervention. Ayush systems emphasize community awareness and sustainable living practices. By promoting ecofriendly habits and a harmonious relationship with nature, Ayush advocates for a collective effort to safeguard the environment and, in turn, human health.

Ritu Sandhi (Seasonal Junction) —Ayurveda recognizes that environmental changes and climate shifts pose threats to our health. Ayurvedic wisdom considers responding to these emergencies as "Dushpariharya" or challenging. However, Ayurveda suggests practical approaches, such as inclusion / exclusion of seasonal/non-seasonal food in diet, timely use of Panchakarma (seasonal cleansing) and Rasayana drugs, to mitigate negative effects of such changes.

We all have our comfort zones when it comes to seasons – some prefer winters, while others favor summers. Ayurveda identifies transitional phase between seasons "Ritu Sandhi," as a challenging period for health. During this time, many people experience health issues. Following the right daily and seasonal routines becomes crucial to staying healthy. Switching from habits and diet uitable for one season to those for an upcoming one gradually remains the keys. This gradual shift helps our bodies

adapt to the changing season, preventing seasonal disorders. Therefore, making small adjustments in our routines can go a long way in keeping us healthy during these transitions.

Air pollution-Fumigation with powders made out of Ayurveda herbs is prescribed for air purification. "Aparajitha dhoopachoornam" herbal powder can inhibit isolated bacteria and fungi. Similarly, the dust removal capacities of plants like neem and the capacity for bringing an effective "green belt" call for the judicious planting of medicinal trees, shrubs, and herbs in urban jungles to reduce environmental pollution. Therefore, planting these medicinal trees, shrubs, and herbs in our neighborhoods can make a real difference towards cleaner, healthier air.

Use of Water for Healthy Life- Having access to safe drinking water is crucial for our health and well-being.

It's not just about staying healthy; it affects our livelihood, school attendance, and dignity, creating resilient communities in healthy environments. Traditional practices, like boiling water with ingredients such as dry ginger, Indian sarsaparilla (hemidesmus indicus), vetiver, and cumin seeds, can prevent many illnesses and maintain optimal digestive capacity.

In our households, using copper utensils for water storage has been a common practice. Ayurveda recommends the use of copper for storing drinkingwater. This simple tradition has the potential to provide microbially safe drinking water, especially in rural areas of developing countries.

In essence, adopting Ayush principles & incorporating simple practices into our daily lives can significantly reduce the adverse impact of environmental conditions on our health. It's a small step that can lead to a healthier and more resilient way of life.

66 Globalization and Connectivity has always posed a challenge to maintain and identify with traditional systems, which are often looked down upon. But if analyzed carefully and without skepticism, a majority of tradition(s) usually have a strong scientific base that has stood test of time across centuries.



Events & Achievements

Safdarjung Hospital Became the First Central Government Hospital to Deliver an IVF Baby on January 13, 2023.

Bone Marrow Transplant (BMT): In August 2023, Safdarjung Hospital performed the first successful bone marrow transplant at a nominal cost to patients.

Transgender OPD Services: Dr. RML Hospital commenced its first-ever transgender outpatient department (OPD) services on September 17, 2023.

Medical College Building Foundation Laying: The foundation laying ceremony for the new medical college building at the Atal Bihari Vajpayee Institute of Medical Sciences took place on February 25, 2024

Lady Hardinge Medical College: Installation of 3 Tesla MRI, CT Simulator and Brachytherapy. IPD and Accident & Emergency block made functional with addition of approximately 600 beds.



Inauguration of Bone marrow transplant unit at VMCC and SJH on 14.06.2023



Safdarjung Hospital successfully performed its first heart transplant on May 4, 2023.



North India's First Skin Bank was inaugurated at Safdarjung Hospital on June 20, 2023.



The 824-room capacity Hostel Block at ABVIMS and Dr. RML Hospital, was inaugurated by Hon'ble Union Minister of Health & Family Welfare and Chemical & Fertilizers on January 8, 2024







Inauguration of Accident Emergency and IPD Block, Lady Hardinge Medical College



National Workshop on Tobacco Product Regulation in India - 21-23 March 2024, NIMHANS, Bengaluru



Ermed Consortium: 4th National conference, National Medical Library



The Points of Entry (POE) Health Organisation held its annual review meeting from March 17th to 19th, 2024, at the Trade Facilitation Centre and Craft Museum in Varanasi.



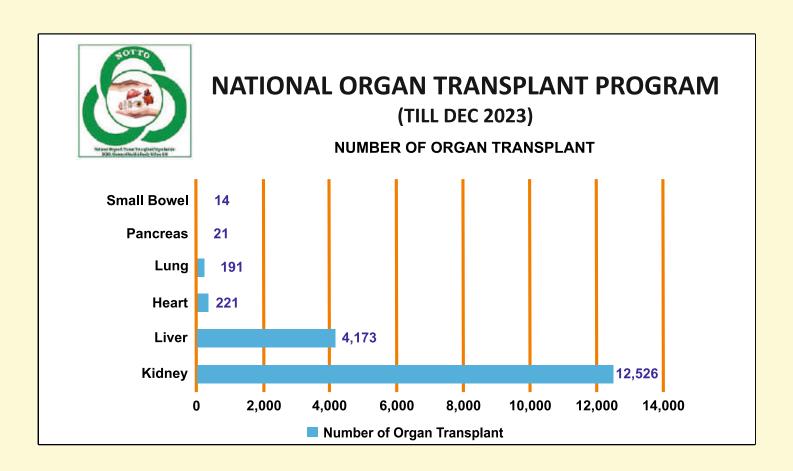
Inauguration of Dialysis Unit on 28th March 2024 at LHMC and Associated Hospitals

Medical Counselling Committee Achievements

Medical Counselling Committee (MCC) of DGHS has been entrusted by Hon'ble Supreme Court of India to conduct All India Counselling for Medical/ Dental seats for Under Graduate (MBBS/BDS)/ Post Graduate (MD/MS/Diploma/MDS) and Super Speciality (D.M/M.Ch/DNBSS) courses.

This academic year i.e 2023 MCC successfully conducted following counsellings:

- Under Graduate Courses Counselling: 15% All India Quota counselling across India as well as 100% seats counselling for Deemed /Central Universities / AIIMS Institutes and JIPMER. Also, counselling for B.Sc (Nursing) seats of central Institutes was conducted by MCC.
- > 50% seats counselling of All India Quota PG seats as well as 100% seats counselling for Deemed/Central Universities/ PG DNB seats.
- > Online Counselling for 100% Super Specialty (DM/M.Ch) seats in all Medical Educational Institutions of the Central and State Governments, Deemed Universities established by an Act of Parliament/Act of State or Union Territory Legislature or by a Municipal Body, Trust, Society, Company or Minority Institutions across the country.





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