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Ears at Risk

You may not realise it but the unsafe use of audio devices, including smartphones and headphones, and exposure to damaging levels of sound at noisy venues, may eventually lead to hearing loss

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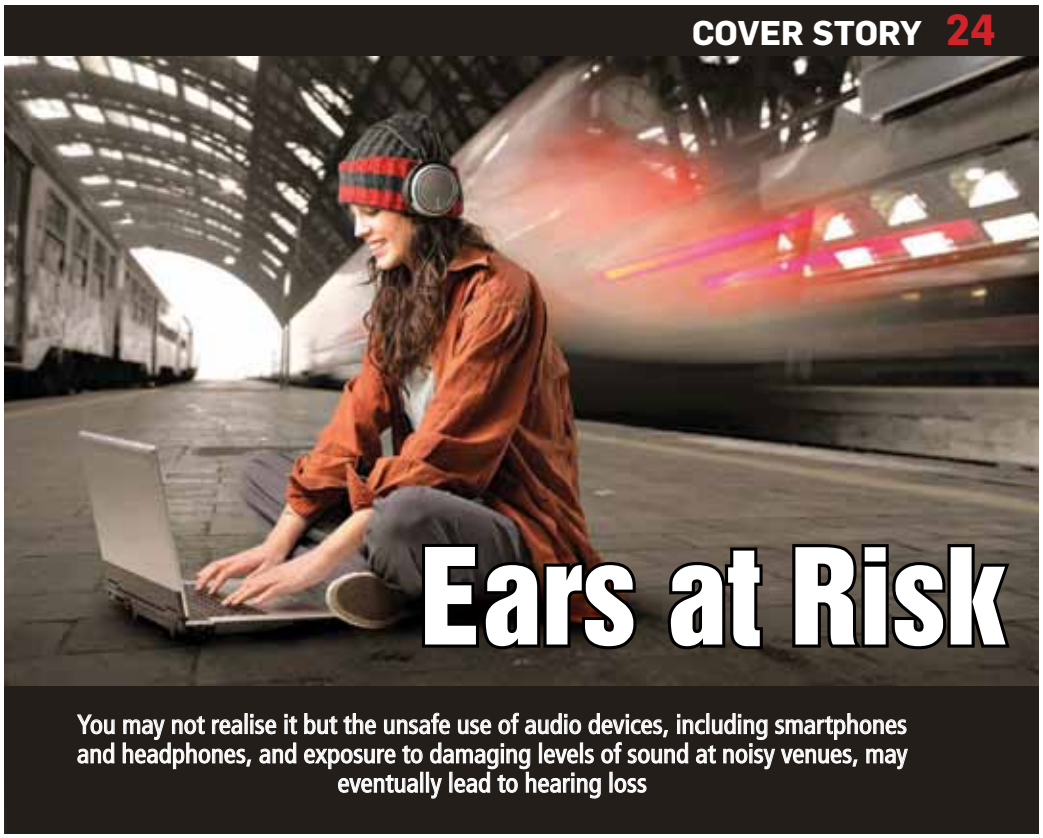

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Dear Readers,

We, at Double Helical, are indebted to you for your continued, unstinted support to your favourite magazine's journey to faithfully record, analyse and interpret the various facets of healthcare in India. We have been overwhelmed with the way you have come up with a keen interest, participation and suggestions for improvement in the magazine, which has helped the publication gain wide acceptance besides you, amongst the medical fraternity, policy-makers and all the people who matter and shape the lives of teeming millions. In keeping with our commitment to hold a mirror to the latest trends and advancements into the different fields of medical science, we again bring to you a series of interesting and informative stories in our August 2015 issue.

This time, we focus on Unsafe Hearing as our cover story. People may not realize it but the unsafe use of audio devices, including smart phones and headphones, and exposure to damaging levels of sound at noisy venues, may cause hearing loss to them.

According to the World health Organization (WHO), over 1.1 billion teenagers and young adults are at the risk of hearing loss due to the unsafe use of personal audio devices. Hearing loss has potentially devastating consequences for physical and mental health, education and employment prospects of the people.

The WHO recommends that young people limit the use of personal audio player to one hour a day in an effort to limit exposure to noise. Medical experts recommend safe headphone listening volume of 85dB. Although headphones are not sold with SPL meters, they can be purchased separately. The headphones should to be recalibrated as per the type and volume of music. While in-the-ear earphones can produce higher sound levels than over-the-ear earphones, their use should be strictly monitored.

Globally, over 5% of world's population (more than 360 million population), have disabling hearing loss, according to the new global estimates on prevalence, released by the WHO on the International Ear Care Day. Of the total, 91% are adults and 9% are children.

To reveal the unfair practice of sex determination Double Helical brings to you very a special story entitled Fair Sex, Unfair Treatment written by our expert panel in this current issue. As the story brings out, right from the pre-birth manifesting in the sex determination test to growing up into adulthood, women are discriminated at every stage of their life. Gender bias refers to unequal treatment or perceptions of individuals on the basis of their gender. It involves differences in socially constructed gender roles as well as distinctions made in biological terms through chromosomes, brain structure, and hormones. Gender systems are often dichotomous and hierarchical, manifesting in the inequalities in numerous dimensions of daily life. In other words, gender inequality stems from distinctions, whether empirically grounded or socially constructed.

World Breast-feeding Week (WBW) is an annual celebration held every year from August 1 to 7 across different countries to encourage breastfeeding and improve the health of babies around the world. The special story Hush, Mother at Work explains the actual status of breast feeding practice in India. While globally only 38% of infants are exclusively breastfed, in India, only 46 percent of infants are exclusively breastfed and rates have shown little improvement in the last decade. The value of breast-feeding for mothers as well as children has been emphasized by different agencies. Over the past decades, evidence for the health advantages of breast-feeding and recommendations for its practice have continued to increase. The WHO says that breastfeeding reduces child mortality and has health benefits that extend into adulthood.

The healthcare professionals recommend exclusive breastfeeding for the first six months of life, followed by continued breastfeeding with appropriate complementary foods for up to two years or beyond. To enable mothers to establish and sustain exclusive breastfeeding for six months, the WHO and the UNICEF recommend initiation of breast-feeding within the first hour of life; exclusive breastfeeding, that is, the infant only receives breast milk without any additional food or drink, not even water; breastfeeding on demand, that is, as often as the child wants, day and night; and no use of bottles, teats or pacifiers.

As per our commitment to introduce something very special to highlight natural modes of treatment, in this current issue we focus on Ayurveda. This ancient science has been widely recognized as a system of natural healthcare congenial to the health needs of the modern world. However, despite its increasing popularity across the globe, many people (especially the youth) are often hesitant in approaching practitioners of Ayurveda.

The reasons could be manifold - lack of awareness about this ancient treasure of knowledge, easy availability of modern medicine, and the youth's obsession with so-called quick-fix solutions, among others. More than anything else, what have hampered Ayurveda's reach among the youth are the many misconceptions that surround its system of treatment.

There are many more engrossing health stories to keep you glued to Double Helical. So, happy reading!

Amresh K Tiwary
Editor-in-Chief

Beyond Litigation

The identification of minimum reasonable standards enables the medical professionals to internalize them in their day-to-day discharge of professional duties, minimizing instances of medical negligence

BY DR VINAY AGGARWAL

Medical negligence is an oft-quoted but much-abused term today. To begin with, it is important to know what constitutes medical negligence. In simple terms, the doctor owes certain duties to the patient who consults him for illness, any deficiency in this duty results in negligence. Doctors need a basic knowledge of how medical negligence is adjudicated in courts of law to help them practise their profession without undue worry about facing litigation for alleged medical negligence. As a matter of fact, intentionally no doctor can show negligence while treating his/her patients. But sometimes some mishaps occur in the course of medical treatment which do not call for any harsh punishment. Such disputes must be solved amicably.

Today, there is a growing awareness regarding patient's rights. This trend is clearly discernible from the recent spurt in litigation concerning medical professional or establishment liability, claiming redressal for the suffering caused due to medical negligence, vitiated consent, and breach of confidentiality arising out of the doctor-patient relationship. The patient-centered initiative of rights protection is required to be appreciated in the economic context of the rapid decline of State spending and massive private investment in the sphere of the health care system and the Indian Supreme Court's painstaking efforts to constitutionalize the right to health as a fundamental right.

In legal parlance, medical malpractice refers to professional negligence by a medical practitioner in which treatment provided was substandard, and caused harm, injury or death to a patient. In the majority of such cases, the medical malpractice or negligence involved a medical error, possibly in diagnosis, medication dosage, health management, treatment or aftercare. Medical malpractice law provides a way for patients to recover compensation from any harms resulting from sub-standard treatment. The standards and regulations for medical malpractice differ slightly from country-to-country; even within some countries,

jurisdictions may have varying medical malpractice laws.

A hospital, doctor or other healthcare professional is not liable for all the harms a patient might suffer. They are only legally responsible for harm or injuries that resulted from their deviating from the quality of care that a competent doctor would normally provide in similar situations, and which resulted in harm or injury for the patient.In the context of obtaining processes, there is a deserving need for a two-pronged approach. On one hand, the desirable direction points towards identification of minimum reasonable standards in light of the social, economical, and cultural context that would facilitate the adjudicators to decide issues of professional liability on an objective basis. On the other hand, such identification enables the medical professionals to internalize such standards in their day-to-day discharge of professional duties, which would hopefully prevent to a large extent the scenario of protection of patient's rights in a litigative atmosphere. In the long run, the present adversarial placement of doctor and the patient would undergo a transformation to the benefits of both the parties.

In legal terms, a consumer is a person who hires or avails of any services for a consideration that has been paid or promised or partly paid and partly promised or under any system of deferred payment and includes any beneficiary of such services other than the person hires or avails of the services for consideration paid or promised, or under any system of deferred payment, when such services are availed of with the approval of the first mentioned person. This definition is wide enough to include a patient who merely promises to pay.

Further, a complaint is an allegation in writing made by a Complainant like a consumer that he or she has suffered loss or damage as a result of any deficiency of service.Deficiency of service means any fault, imperfection, shortcoming, or inadequacy in the quality, nature, or manner of performance that is required to be maintained by or under any law for the time being in force or has been undertaken to be performed by a person in pursuance of a contract or otherwise in relation to any service.

Basically, medical negligence is simply the failure to exercise due care. The three ingredients of negligence are being considered today like the defendant owes a duty of care to the plaintiff, the defendant has breached this duty of care; and, the plaintiff has suffered an injury due to this breach. Medical negligence is no different. It is only that in a medical negligence case, most often, the doctor is the defendant.

The duty owed by a doctor towards his patient, in the words of the Supreme Court is to bring to his task a reasonable degree of skill and knowledge and to exercise a reasonable degree of care. The doctor, in other words, does not have to adhere to the highest or sink to the lowest degree of care and competence in the light of the circumstance. A doctor, therefore, does not have to ensure that every patient who comes to him is cured. He has to only ensure that he confers a reasonable degree of care and competence.

> As a matter of fact, intentionally no doctor can show negligence while treating his/her patients. But sometimes some mishaps occur in the course of medical treatment which do not call for any harsh punishment

Eventually we can say that though the same standard of care is expected from a generalist and a specialist, the degree of care would be different. In other words, both are expected to take reasonable care but what amounts to reasonable care with regard to the specialist differs from what amount of reasonable care is standard for the generalist. In fact, the law expects the specialist to exercise the ordinary skill of this speciality and not of any ordinary doctor.

As of now, the adjudicating process with regard to medical professional liability, be it in a consumer forum or a regular civil or criminal court, considers common law principles defining medical negligence. However, it is equally essential to note that the protection of patient's right should not be at the cost of professional integrity and autonomy. There is definitely a need for striking a delicate balance. Otherwise, the consequences would be disastrous, to say the least.

(The author is CMD, Pushpanjali Crosslay Hospital, Vaishali and Member, Medical Council of India New Delhi)

Get your Breasts Back!

Breast cancer has become very common among women in the country.But the patients need not despair as even after removal of the breast or removal of cancerous breast tissue, the option of breast reconstruction is very much available forthe rebuilding of breast

BY ABHIGYAN

"Being aware of how your breasts normally look and feel is an important part of keeping up with your breast health. Finding breast cancer as early as possible gives you a better chance of successful treatment. But knowing what to look for is not a substitute for regular mammograms and other screening tests, which can help find breast cancer in its early stages, even before any symptoms appear."

Dr Anish Maru, MD, DM- Senior Consultant , Action Cancer Hospital, New Delhi

Breast cancer is the most common cancer in women worldwide and in Indian metro cities. Breast cancer is basically a disease of hormonal imbalance. Longer and higher the estrogen exposure, the more are the chances of breast cancer.

Biology of every cancer patient is different and some patients behave very differently. Even the most aggressive form of treatment cannot cure them whereas some very slow-paced and even a simple hormonal treatment can give them a long life.

Tackling Breast Cancer

Earlier the treatment was the same for every lady suffering from breast cancer – radical mastectomy and radiotherapy. Right now with much scientific treatment, it becomes better leading to the conservation of breast. If a lady receives chemotherapy in adjuvant setting doing breast conservation surgery does not affect her survival. Survival is same for a lady undergoing radical surgery versus breast conservation surgery if she receives adjuvant chemotherapy.In further studies size of primary tumour, the number of involved, the axillary lymph nodes decided the chemotherapy agents to be given.

Identification of estrogen and progesterone receptor on tumour cells start deciding which woman needs hormonal treatment. The biology of breast cancer and molecular markers can predict the chance of relapse and the treatment to be given to an individual patient. Every patient has a particular molecular signature in her genes and this gene profile of patients can be detected on tumour blocks. Treatment can be advised for individual patient with best survival with least toxicity of drugs.

There are many things which decide the treatment of individual patient-tumour size, number of axillary nodes involved, lymphovascular and perineural invasion, and adjuvant score. Also, gene profile (molecular signature) is taken into consideration for deciding the treatment of a patient. In fact, every patient gets a different treatment as per her profile.

According to Dr Anish Maru, MD, DM- Senior Consultant , Action Cancer Hospital, New Delhi,"Being aware of how your breasts normally look and feel is an important part of keeping up with your breast health. Finding breast cancer as early as possible gives you a better chance of successful treatment. But knowing what to look for is not a substitute for regular mammograms and other screening tests, which can help find breast cancer in its early stages, even before any symptoms appear."

A lump or mass in the breast is the most common symptom of breast cancer. Such lumps are often hard and painless, though some may be painful. Not all lumps are cancerous, though. There are a number of benign breast conditions (like cysts) that can also cause lumps. Still, it is important to have your doctor check out any new lump or mass right away. If it does turn out to be cancer, the sooner it's diagnosed the better.

Breast swelling can be caused by inflammatory breast cancer, a particularly aggressive form of the

disease. Swelling or lumps around your collarbone or armpits can be caused by breast cancer that has spread to lymph nodes in those areas. The swelling may occur even before you can feel a lump in your breast, so if you have this symptom, be sure to see a doctor.

Says, Dr Anish Maru, "If the skin of your breast starts to feel like an orange peel or gets red, have it checked right away. Often, these are caused by mastitis, a breast infection common among women who are breast feeding. Your doctor may prescribe antibiotics to treat the infection. If your symptoms do not improve after a week, though, get checked again, because these symptoms can also be caused by inflammatory breast cancer. This form of breast cancer can look a lot like a breast infection, and because it grows quickly it's important to diagnose it as soon as possible."

> You will need to speak to your surgeon or breast care nurse to find out which type of reconstruction is suitable for you. So that he aims to create a breast similar in size and shape to your own breast.

Like skin thickening and redness, breast warmth and itching may be symptoms of mastitis – or inflammatory breast cancer. If antibiotics don't help, see your doctor again.

Breast cancer can sometimes cause changes to how your nipple looks. If your nipple turns inward, or the skin on it thickens or gets red or scaly, get checked by a doctor right away. All of these can be symptoms of breast cancer.

A discharge (other than milk) from the nipple may be alarming, but in most cases it is caused by injury, infection, or a benign tumour. Breast cancer is a possibility, though, especially if the fluid is bloody, so your doctor needs to check it out.

Although most breast cancers do not cause pain in the breast, some do. More often, women have breast pain or discomfort that is related to their menstrual cycle. This type of pain is most common in the week or so before their periods, and often goes away once menstruation begins. Some other benign breast conditions, such as mastitis, may cause a more sudden pain. In these cases the pain is not related to the menstrual cycle. If you have breast pain that is severe or persists and is not related to the menstrual cycle, you should be checked by your doctor. You could have cancer or a benign condition that needs to be treated.

Breast Reconstruction: A Good Option

Breast reconstruction is surgery to make a new breast shape after removal of the breast or removal of some breast tissue.The main ways of making a new breast shape include removing the whole breast and the skin and then putting in an implant to gradually stretch the remaining skin and muscle. It is followed by removing just the breast tissue, but leaving the skin, and putting in an implant, reconstruction with your own living tissue taken from another part of your body, and combination of your own tissue and an implant.

You will need to speak to your surgeon or breast care nurse to find out which type of reconstruction is suitable for you. So that he aims to create a breast similar in size and shape to your own breast. After your reconstruction, you may need to have further surgery to create a nipple or change the shape of your other breast to match your reconstructed one. It is also possible to have breast reconstruction if you've only had part of your breast removed (breast conserving surgery).

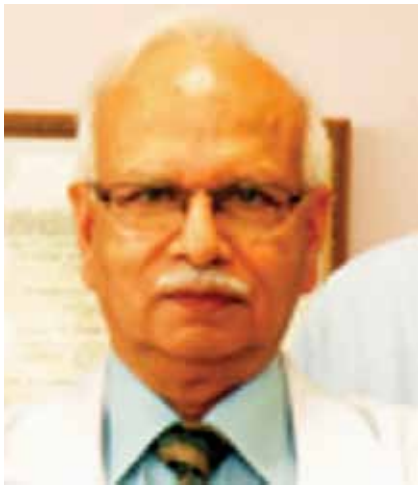
There are two types of options for breast reconstruction. One is Breast Implant and other is Tissue Flaps. Reconstruction with implants are plastic sacs filled with silicone (a type of liquid plastic) or saline (salt water). The sacs are placed under your skin behind your chest muscle. It is important that you discuss these options with your physician who knows your situation and needs. Tissue flap surgeries use muscle, fat, skin, and blood vessels moved from another part of the body to the chest area to rebuild the breast.

Says Dr Dinesh Bhargava, Director, Aesthetics Plastic Surgeon, Pushpanjali Crosslay Hospital, Vaishali, Ghaziabad, "A breast implant is a prosthesis used to change the size, form, and texture of a woman's breast. In plastic surgery, breast implants are applied for post–mastectomy breast reconstruction; for correcting congenital defects and deformities of the chest wall; for aesthetic breast augmentation; and for creating breasts in the male-to-female transsexual patient."

In surgical practice, for the reconstruction of a breast, the tissue expander device is a temporary breast prosthesis used to form and establish an implant pocket for emplacing the permanent breast implant. For the correction of male breast defects and deformities, the pectoral implant is the breast prosthesis used for the reconstruction and the aesthetic repair of a man's chest wall.

Dr Dinesh Bhargava adds, "The technical goal of saline-implant technology was a physically less invasive surgical technique for emplacing an empty breast implant device through a smaller surgical incision. In surgical praxis, after having emplaced the empty breast implants to the implant pockets, the plastic surgeon then filled each device with saline solution, and, because the required insertion-incisions are short and small, the resultant incision-scars will be smaller and shorter than the surgical scars usual to the long incisions required for inserting pre-filled, silicone-gel implants".

Breast reconstruction is the rebuilding of a breast. It involves using autologous tissue or prosthetic material to construct a natural-looking breast. Often this includes the reformation of a natural-looking areola



"A breast implant is a prosthesis used to change the size, form, and texture of a woman's breast. In plastic surgery, breast implants are applied for post–mastectomy breast reconstruction; for correcting congenital defects and deformities of the chest wall; for aesthetic breast augmentation; and for creating breasts in the male-to-female transsexual patient."

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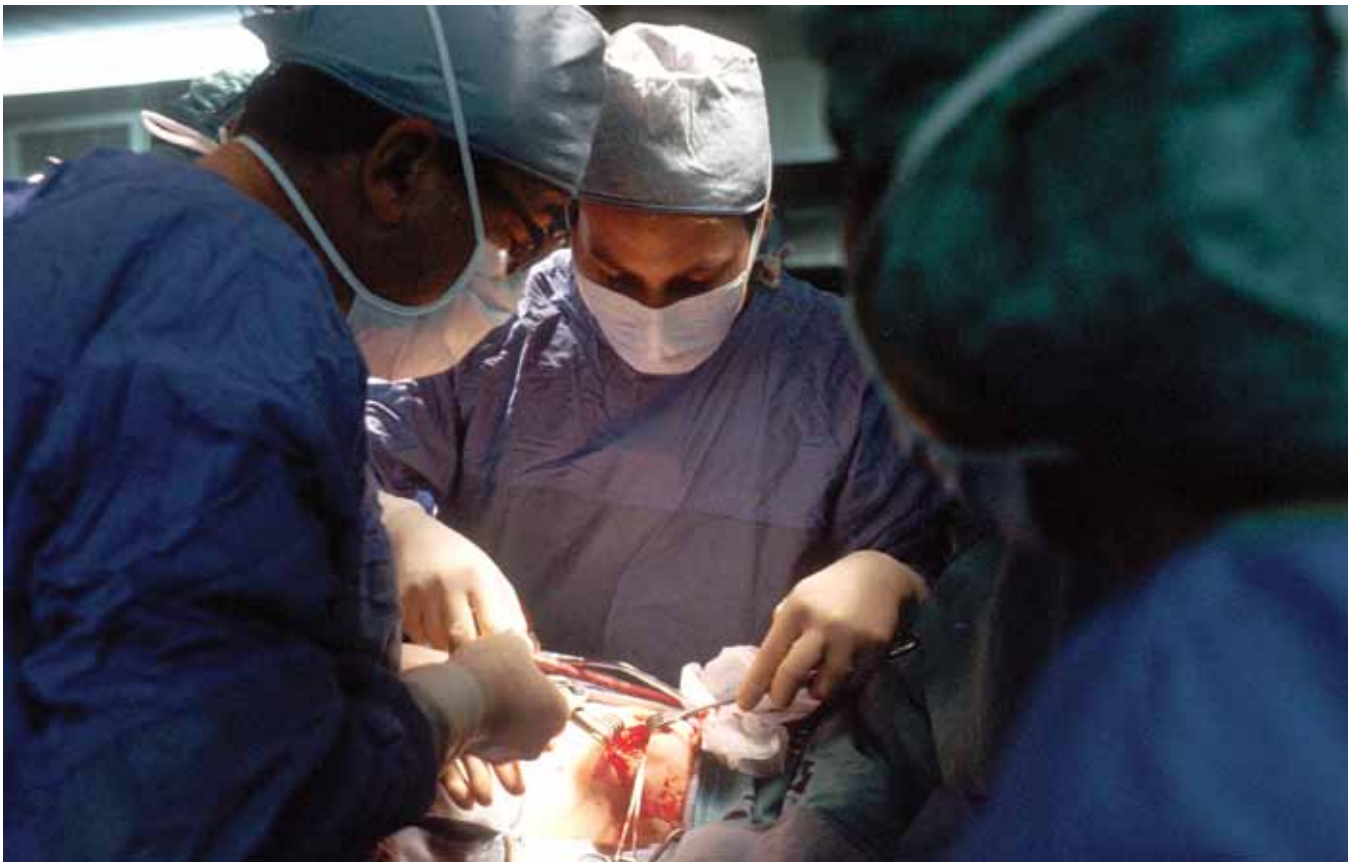
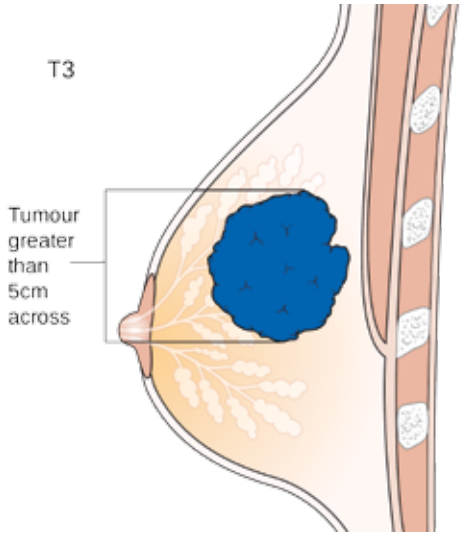


and nipple. This procedure involves the use of implants or relocated flaps of the patient's own tissue.The primary part of the procedure can often be carried out immediately following the mastectomy. A mastectomy is performed under general anesthesia, which means you are unconscious (asleep) during the surgery.

Doctors remove all of the breast tissue (and in most cases, but not all, the nipple and areola are also removed). As with many other surgeries, patients with significant medical comorbidities like high blood pressure, obesity, diabetes and smokers are higher-risk candidates. Surgeons may choose to perform delayed reconstruction to decrease this risk. There is, however, little evidence available from randomized studies to favour immediate or delayed reconstruction.

The infection rate may be higher with primary reconstruction (done at the same time as mastectomy), but there are psychologic and financial benefits



to having a single primary reconstruction. Patients expected to receive radiation therapy as part of their adjuvant treatment are also commonly considered for delayed autologous reconstruction due to significantly higher complication rates with tissue expander-implant techniques in those patients. Waiting for six months to a year following may decrease the risk of complications, but this risk will always be higher in patients who have received radiation therapy."

Delayed breast reconstruction is considered more challenging than immediate reconstruction. Frequently not just breast volume, but also skin surface area needs to be restored. Many patients undergoing delayed breast reconstruction have been previously treated with radiation or have had a reconstruction failure with immediate breast reconstruction. In nearly all cases of delayed breast reconstruction tissue must be borrowed from another part of the body to make the new breast.

Fair Sex, Unfair Treatment

Right from the pre-birth manifesting in the sex determination test to growing up into adulthood, women are discriminated at every stage of their life

BY DR. SUNEELA GARG/ INDU ARORA

Gender bias refers to unequal treatment or perceptions of individuals on the basis of their gender. It involves differences in socially constructed gender roles as well as distinctions made in biological terms through chromosomes, brain structure, and hormones. Gender systems are often dichotomous and hierarchical, manifesting in the inequalities in numerous dimensions of daily life. In other words, gender inequality stems from distinctions, whether empirically grounded or socially constructed.

In India, discriminatory attitude towards men and women have existed for generations and affect the lives of both genders. Although the constitution of India has granted men and women equal rights, gender disparity still exists. Gender

Dr. Suneela Garg

Indu Arora

discrimination violates human rights, mostly seen in family land distribution among sisters and brothers.

Gender bias is so deeply ingrained in the system that the discrimination begins from the time a couple plans a baby. Today, science has advanced so far that it is possible to separate male and female sperm so as to predetermine the sex of the child. In some parts of the world the birth of a baby boy warrants a celebration whereas a baby girl may not be extended the same warm welcome. Despite the fact that India has crossed the billion mark in population, there are instances of families with five daughters and the mother trying desperately to give birth to a son.

Though not visibly shown, these discriminations still exist in the Indian society, by and large. Right from the birth, growing up stages, and at the time of decision of properties of the family, the preference is always given to the male offspring.

But it is to be duly noted that even men face discrimination quite often in their lives. From early childhood, boys are told not to cry like a girl and be strong. They are not allowed to express their emotions in visible ways. Also the general perception is that only men are responsible for the bread and butter of the family. On the other side, a girl is always taught to learn cooking and other household work. These discriminations are so strongly built into our lives that if a man is doing household chores, he is considered to be weak or feminine. In today's world, though the woman is proving herself in various fields, still she is supposed to learn and do household chores as if she is incomplete without fulfilling such functions. Similarly, though in today world, men are very good chefs, men are only supposed to work outside the house.

Women are perceived to be disadvantaged at work. Indian laws on rape, dowry and adultery have women's safety at heart, but highly discriminatory practices are still taking place at an alarming rate.

There are several effects and consequences of gender bias, especially in employment. Gender bias in the workplace creates a hostile work environment. Gender bias also promotes harassment and possible workplace violence. Victims of gender bias have the right to file lawsuits to recover damages suffered as a result of discriminatory practices.

Several state and federal laws prohibit gender discrimination and offer remedies for such behavior in employment as well as in education and financial institutions. The Civil Rights Act prohibits discrimination on the basis of sex. The Equal Pay Act

promotes equality between men and women who perform the same job duties in the same workplace. Diversity and inclusion policies also help to remedy gender bias by promoting equality between the sexes.

There are many ways to combat gender bias in the workplace. According to a blog post by Jonathan Segal, an employment law specialist for the Duane Morris Institute, supervisors and executives need to work to get women more involved with company boards. Having women in executive roles shows that the enterprise appreciates their talents. It also provides role models to aspiring businesswomen, who need to know that it's possible to reach the top of the corporate ladder.

Women may be prone to apologizing when they don't need to. For example, when asking a question in a meeting, it's common for female staff members to say "I'm sorry" before getting to the query. Another mistake women often make is waiting to become experts before moving into a new position. While men often have the attitude that they'll figure out the role once they're in it, some women fear even approaching it until they have all the skills necessary. Getting rid of these biases is a challenge, but once people become more aware of them, it will be easier to confront such situations.

But firstly a general awareness on this topic is very much crucial as even people have become habitual of these practices and have started compromising with their rights. There are many ways of promoting awareness about gender equality like holding hoardings at metro or workplaces, TV advertisements, and movies but the best way to promote equality between both the genders is to educate a child right from his childhood at home or schools about equality, not only just to educate but also to create an environment of equality at home, school and workplaces as a person tends to learn more by observing rather than teaching. It is essential that families should be sensitized through all the available platforms including panchyati raj institutions. If the people right from their childhood live in an environment where both the genders are treated equally, then surely this word GENDER BIAS would gradually cease to exist.

> Gender bias is so deeply ingrained in the system that the discrimination begins from the time a couple plans a baby. Today, science has advanced so far that it is possible to separate male and female sperm so as to predetermine the sex of the child.

(The authors are from Community Medicine, Maulana Azad Medical College New Delhi)

Caring for the Elderly

The ageing people In India certainly deserve a better deal to mitigate their sufferings that stem from low social status, isolation, maltreatment, lack of independent economic security, food taboos, poor attention to health, and lack of effective healthcare facilities

BY DR SUNEELA GARG/ DR TULIKA SINGH

Ageing is an inevitable biological phenomenon with unique challenges for every sector of society. The World Health Organization (WHO) defines 'Elderly' as a person above the age of 60 years and India too follows the same definition. At the global level, the share of those 60-plus has risen from 8% of the world population (200 million people) in 1950 to around 11% (760 million) in 2011, which is expected to increase to reach 22% (2 billion) by 2050.

The developing countries have also been hit by the phenomenon of ageing population. Of the estimated 605 million elderly people in world, two thirds (i.e. around 400 million) reside in the developing

countries. Currently, the 60-plus population accounts for 8.14% of India's national population, translating into roughly 93 million people. By 2050, its 60-plus population share is projected to climb to 19%, or approximately 323 million people. These demographic transitions require us to shift our focus to cater to the health-care needs of the elderly population.

In India the elderly people suffer from dual medical problem, i.e., both communicable as well as non-communicable diseases. This is further compounded by impairment of special sensory functions like vision and hearing and various physical as well as mental disabilities. A decline in immunity and age related physiologic changes make them vulnerable to several communicable diseases. In common with any other population group, the major health problems of elderly are readily seen to stem from economic, social, cultural and political factors, as well as biological factors. Illiteracy, low social status, isolation, maltreatment, lack of independent economic security, food taboos, inadequate living environment, poor awareness of the risk factors, poor attention to health, and lack of effective health care facilities are determinants of the ill health of elderly. These factors have a significant impact on their quality of life. Because of the wide gamut of determinants involved we need to have a multifactorial approach to tackle the health problems of elderly with active collaboration between health, social, economic and legal sectors.

The 60th round of National Sample Survey provides a comprehensive status report on older persons. According to this survey, the elderly experience a greater burden of ailments (which the National Sample Survey Organization defines as illness, sickness, injury, and poisoning) compared to other age groups. The prevalence and incidence of diseases as well as hospitalization rates were much higher in older people than the total population. For the aged persons the ability to move is an important indicator of their physical condition of health and also indicates the degree of their dependence on others for movement and performing their daily routine. About 8% of the elderly were confined to their home or bed. Women were more frequently affected than males in both rural and urban areas. It was seen that as high as 55-63 per cent of the aged with sickness felt that they were in a good or fair condition of health. It is possible that many older people considered their sickness as a part of normal ageing. This observation has a lot of significance as self-perceived health status is an important indicator of health service utilization and compliance to treatment interventions.

Some of the common disabilities of elderly are senile cataract, sensorineural hearing loss, glaucoma, osteoporosis, and failure of special senses. Also there are some problems which result from long term illnesses such as, degenerative diseases of the heart and blood vessels, cancer, accidents, diabetes, diseases of the locomotor system, digestive disorders, respiratory illness and genitor-urinary illnesses. Due to demographic transition, India is having the problem of emerging epidemic of chronic non-communicable diseases (NCDs) in elderly, most of which are lifestyle-based diseases and disabilities. Elderly also suffer from the problem of multiple morbidities which have a negative impact on their quality of life.

Due to demographic transition, India is having the problem of emerging epidemic of chronic non-communicable diseases (NCDs) in elderly, most of which are lifestyle-based diseases and disabilities. Elderly also suffer from the problem of multiple morbidities which have a negative impact on their quality of life.

Dr Tulika Singh

A comprehensive community based health programme for the elderly is needed along with strong political

National Policy for Older Persons

The National Policy for Older Persons adopted in 1999 and revised in 2011, addresses the requirements of financial security, health care and nutrition, protection against abuse and exploitation, shelter and appropriate financial discounts to senior citizens, all in order to improve quality of their lives. The Maintenance of Welfare of Parents and Senior Citizens Act enacted in 2007 has further strengthened the legislative framework in this area. The National Programme for Healthcare of Elderly provides for improved health services. The Integrated Programme for Older Persons is a community based approach to improve the quality of life of older persons and the National Council of Senior Citizens advises Central and State Governments on the issue of their welfare and protections. Several government policies and programmes ensure privileges of old age pensions, retirement benefits, tax concessions and access to various amenities in transportation and health services and provide financial assistance for setting up old age homes, day care centers, mobile medical units, counselling units and similar facilities to enable them to live a life of well being and dignity. All this is being made possible through innovative partnerships with multiple stakeholders, including civil society, family and the community. Ageing has also been mainstreamed in numerous development programmes aimed at the upliftment of the poor and marginlaised sections of the population. Ways and means to integrate older people and their full participation into the development process as an asset rather than a burden need to be adopted. Core informal social structures such as families and communities need to be revived and invigorated, in addition to strengthening formal institutions. important issue.

The policy takes into account the demographic explosion among the elderly, the changing economy and social milieu, advancement in medical research, science and technology and high levels of destitution among the elderly rural poor. A higher proportion of elderly women than men experience loneliness and are dependent on children. Social deprivations and exclusion, privatization of health services and changing pattern of morbidity affect the elderly.

What is the focus of the policy?

1. Mainstream senior citizens, especially older women, and bring their concerns into the national development debate with priority to implement mechanisms already set by governments and supported by civil society and senior citizens associations. Support promotion and establishment of senior citizens associations, especially amongst women.
2. Promote the concept of "Ageing in Place" or ageing in own home, housing, income security and homecare services, old age pension and access to healthcare insurance schemes and other programmes and services to facilitate and sustain dignity in old age.
3. The policy considers institutional care as the last resort. It recognizes that care of senior citizens has to remain vested in the family which would partner the community, government and the private sector.
4. As India is a signatory to the Madrid Plan of Action and Barrier Free Framework, the policy will work towards an inclusive, barrier-free and age-friendly society.
5. Recognize that senior citizens are a valuable resource for the country and create an environment that provides them with equal opportunities, protects their rights and enables their full participation in society. Towards achievement of this directive, the policy visualizes that the states will extend their support for senior citizens living below the poverty line in urban and rural areas and ensure their social security, healthcare, shelter and welfare. It will protect them from abuse and exploitation so that the quality of their lives improves.
6. Long term savings instruments and credit activities will be promoted to reach both rural and urban areas. It will be necessary for the contributors to feel assured that the payments at the end of the stipulated period are attractive enough to take care of the likely erosion in purchasing power.
7. Employment in income generating activities after superannuation will be encouraged.
8. Support and assist organizations that provide counselling, career guidance and training services.
9. States will be advised to implement the Maintenance and Welfare of Parents and Senior Citizens Act, 2007 and set up Tribunals so that elderly parents unable to maintain themselves are not abandoned and neglected.
10. States will set up homes with assisted living facilities for abandoned senior citizens in every district of the country and there will be adequate budgetary support.

TO SUM UP:

- The National Policy on Older Persons focuses on mainstreaming of senior citizens, preventive care, barrier free and age-friendly environment, income security and social protection
- The policy endeavours to strengthen integration between generations, facilitate interaction between the old and the young as well as strengthen bonds between different age groups
- The areas of intervention include Income security in old age Healthcare, Safety and Security, Housing, Productive Ageing, Welfare and Multigenerational bonding.

commitment and action at the level of society for its effective implementation. Health education and awareness activities should be undertaken for lifestyle and behavioural changes to prevent morbidities. Measures should be taken to make the home safe for geriatric by putting up ample lights, handrails in toilets and stairs, non-slippery floors, keeping furniture and electrical cords out of walking pathways, storing household items on lower shelves, and installing alarms and door safety devices. At the community level, regular screening of non-communicable diseases should be carried out through camps and mobile clinics for reaching out to the elderly population. Advocacy with non-governmental organizations (NGOs), charitable organizations, and faith-based organizations could also play an important role in this aspect. Domiciliary care services should be started so that early diagnosis and treatment can be given and no elderly suffers due to inaccessibility or inconvenience in reaching the healthcare facility. In order to strengthen our health services for elderly we need to make geriatric care an integral part of the primary health care, setup geriatric specialization courses in medical colleges, carry out specialized training and retraining of medical students & health professionals in geriatric medicine and setup a multi-disciplinary team specifically trained to meet the needs of the elderly population. The government has launched National Programme for Health Care of Elderly (NPHCE) and is taking steps to promote it by opening senior citizen clinics and geriatric medicine units.

> A comprehensive community based health programme for the elderly is needed along with strong political commitment and action at the level of society for its effective implementation. Health education and awareness activities should be undertaken for lifestyle and behavioural changes to prevent morbidities

We need to emphasize the fact that disease and disability are not part of old age and elderly must sought help to address these health problems. The need of the hour is to promote the concept of Active and Healthy ageing, which includes promotive, preventive, curative and rehabilitative aspects of health, among the elderly.

(The authors are from Department of Community Medicine, Maulana Azad Medical College & Associated Hospitals, New Delhi)

Alarming Disclosure

Studies conducted in low income countries have found that exposure to indoor air pollution resulting from the use of biomass fuel for cooking and second hand tobacco smoke has adverse effects on maternal health and foetal growth resulting in preterm birth and Low Birth Weight

BY DR. SUNEELA GARG/DR. NAVEEN PRABHU J

Low Birth Weight (LBW) is defined as weight less than 2500g at birth. Further categories include Very Low Birth Weight (VLBW) which is less than 1500g and Extremely Low Birth Weight (ELBW) which is less than 1000g. Normal birth weight after completion of nine months of gestation is 2500–4200g. Birth weight is governed by two major processes: duration of gestation and intrauterine growth rate.

The LBW is thus caused by either a short gestation period (Prematurity) or due to intrauterine growth retardation (IUGR) or a combination of both. Prematurity is usually defined as a gestational age of less than 37 weeks. LBW babies are at high risk because, 20% of neonatal mortality is due to LBW alone. LBW and prematurity is together associated with 35% neonatal mortality. The birth weight of babies is directly influenced by the health status of the mother during pregnancy.

At the population level, the proportion of babies with a LBW is an indicator of a multifaceted public-health problem that includes long-term maternal malnutrition, ill health, hard

> Indoor air pollution (IAP) is an important risk factor for morbidity and mortality; it accounts for about 4% of the global burden of disease. Since women and young children often spend considerable time indoors, mostly associated with food preparation and cooking, they are at greatest risk for exposures to IAP

Dr. Suneela Garg

Dr. Naveen Prabhu J

work and poor health care in pregnancy. On an individual basis, LBW is an important predictor of new-born health and survival and is associated with higher risk of infant and childhood mortality.

LBW prevalence of a country is a good measure reflecting its public health problems and has been used as a very sensitive public health indicator for all the developing countries, including India. Globally the incidence of LBW is 15% or approximately 1 in every 7th child birth and in India it is 28%. In developing countries, LBW is mostly attributed to IUGR; while in developed countries it is mainly due to prematurity.

The main determinants of LBW brought out by various studies include – maternal pre pregnancy weight, maternal weight gain during pregnancy, maternal height < 145cm, inadequate antenatal check-up (< 3 visits), maternal age < 20 years, anaemia (haemoglobin level < 11 g%), inadequate dietary intake during pregnancy, birth spacing, birth order, maternal education, economic status, heavy work during pregnancy, rest, smoking and alcohol consumption during pregnancy and other maternal health problems.

Apart from the above mentioned factors, indoor air pollution resulting from the use of biomass fuel for cooking and second hand tobacco smoke are important determinants of LBW which are largely understudied till now.

Indoor air pollution (IAP) is an important risk factor for morbidity and mortality; it accounts for about 4% of the global burden of disease. Nearly two million people die each year from causes related to IAP. More than 90% of these deaths occur in low and middle income countries, often in rural or semi-urban areas. IAP levels in these countries are typically many times higher than developed world standards for ambient air quality. Since women and young children often spend considerable time indoors, mostly associated with food preparation and cooking, they are at greatest risk for exposures to IAP.

Globally, three billion people, about half the world's population, rely on solid fuel including wood, charcoal, crop residues, dung and coal as the main source of household energy. In many low and middle income countries, solid fuel used for household activities such as cooking and heating is a major source of IAP. 4.8% of deaths in low income countries are attributed to IAP, whereas in high income countries outdoor air pollution is the major problem. Solid fuels are

often burned over an open fire or in an inefficient stove. The incomplete combustion of solid fuels in simple stoves releases a complex mixture of toxic chemicals.

It has been observed in the studies conducted in low income developing countries that indoor air pollution was associated with a significant increased risk of LBW when compared to mothers who used LPG fuel for cooking during pregnancy. Indoor air pollution due to incomplete combustion of biomass fuel in open stoves without chimneys can produce carbon monoxide (CO), carbon dioxide (CO2), nitrogen dioxide (NO2), sulphur dioxide (SO2), volatile organic compounds and particulate matter concentrations many times higher than those found in the worst outdoor settings. These are associated with significant adverse health effects on the pregnant mother as well as directly on the foetus leading to poor intrauterine growth.

Not only consumption of tobacco during pregnancy but even exposure to second hand tobacco smoke (SHTS) also increases the risk of prematurity and IUGR. The most likely mediators in tobacco smoke are carbon monoxide and nicotine. Carbon monoxide can interfere with oxygen delivery to the foetus and Nicotine is believed to result in rapid increases in maternal catecholamines and consequent uterine vasoconstriction both leading to uteroplacental insufficiency and IUGR.

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Unfortunately, the households that used the poorest quality cooking fuels were often the most likely to allow indoor smoking, thus increasing the exposure to poor quality indoor air. The condition is worsened by the fact that most of these households in the low income developing countries have poor ventilation and overcrowding, leading to trapping of noxious air

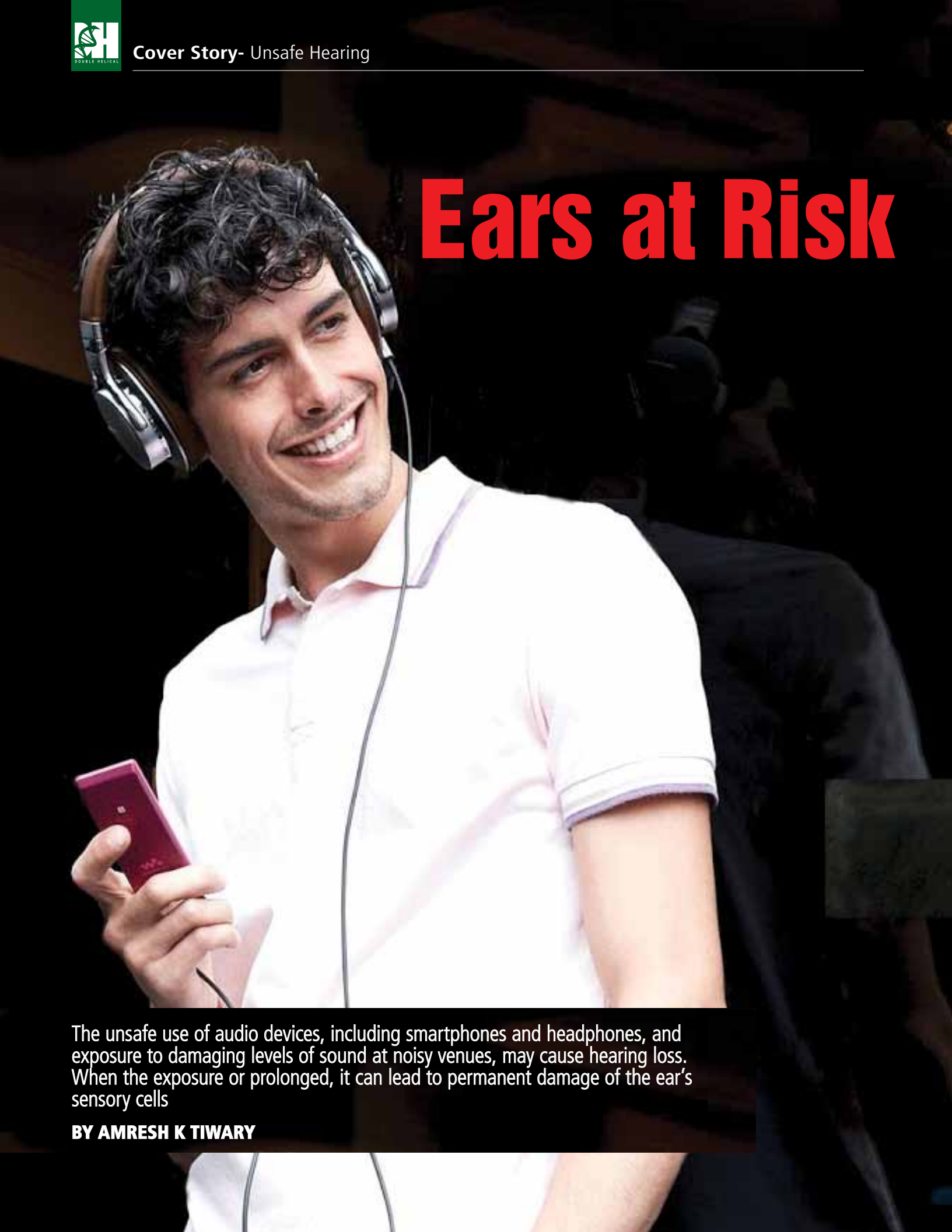
indoors with more number of people breathing themselves to ill health.

So, exposure to IAP has adverse effects on maternal health and foetal growth resulting in preterm birth and low birth weight. The detrimental effects of IAP further continue into infancy and childhood leading to significant childhood morbidity and mortality.

Emphasis should be on creating awareness among the rural and urban poor about the hazards of indoor air pollution and adoption of healthy lifestyle practices like avoiding use of solid biomass fuels and avoiding smoking indoors especially in proximity to children and women. Subsidies for construction of separate well ventilated kitchens with chimneys or exhaust for smoke and free provision of LPG fuel for the underprivileged people need to be taken up by the government. Legislations on source reduction of harmful solid fuels should be implemented. Also, at the community level, planting of trees and greeneries in the houses would help in purifying the polluted air. Further research are needed to determine how indoor air quality can be improved and monitored and the effect that such measures would have on improving maternal and child health outcomes.

(The authors are from Department of Community Medicine, Maulana Azad Medical College, New Delhi)

Ears at Risk



The unsafe use of audio devices, including smartphones and headphones, and exposure to damaging levels of sound at noisy venues, may cause hearing loss. When the exposure or prolonged, it can lead to permanent damage of the ear's sensory cells

BY AMRESH K TIWARY

Over 1.1 billion teenagers and young adults are at the risk of hearing loss due to the unsafe use of personal audio devices, including smartphones, and exposure to damaging levels of sound at noisy entertainment venues such as nightclubs, bars and sporting events, according to the World health Organization (WHO). Hearing loss has potentially devastating consequences for physical and mental health, education and employment.

The WHO recommends that young people limit the use of personal audio player to one hour a day in an effort to limit exposure to noise. A reports recommends a safe headphone listening volume of 85dB. Although headphones are not sold with SPL meters, they can be purchased separately.

One could note of the volume control setting that pumps out 85dB, any music recorded at a higher level would still play back at dangerous levels. The headphones would have to be recalibrated whenever the music changed. While in-the-ear earphones can produce higher sound levels than over-the-ear earphones, they are not necessarily used at higher levels.

According to Dr A K Agarwal, renowned ENT surgeon and Professor of Excellence, Maulana Azad Institute of Medical Science, New Delhi, the harmful effects of listening any type of headphone including mobile phone depend upon two factors: first total duration and second intensity of sound.

Anything which is more than three hours a day for long duration has been found to bring auditory and non-auditoryharmful impact on body.

Says Dr A K Agarwal, "Hearing damage from headphones is probably more common than from loudspeakers, even at comparable volumes, due to the close coupling of the transducers to the ears. There are many symptoms of hearing damage like ringing or buzzing in the ears, difficulty in understanding speech, slight muffling of sounds and difficulty understanding speech in noisy places or places with poor acoustics.

The distance from the source of the sound and period of time are also important factors in protecting your hearing. Unsafe levels of sounds can be, for example, exposure to in excess of 85 decibels (dB) for eight hours or 100 dB for 15 minutes".

Says Dr Rohit Visnoi, ENT surgeon, Sri Balaji Action Medical Institute, New Delhi, "Teenagers and young people can better protect their hearing by keeping the volume down on personal audio devices, wearing earplugs when visiting noisy venues, and using carefully fitted, and, if possible, noise-cancelling earphones/headphones. They can also limit the time spent engaged in noisy activities by taking short listening breaks and restricting the daily use of personal audio devices to less than one hour. With the help of smartphone apps, they can monitor safe listening levels. Sound pressure is measured in decibels and exposure to 75dB (even after long exposure) are usually safe. However, long or repeated sounds at above 85dB can cause hearing loss. The louder the sound, the shorter the amount of time it takes for noise-induced hearing loss (NIHL) to happen".

Adds Dr Visnoi, "Mobile phone is an excellent

"Hearing damage from headphones is probably more common than from loudspeakers, even at comparable volumes, due to the close coupling of the transducers to the ears. The distance from the source of the sound and period of time are also important factors in protecting your hearing. Unsafe levels of sounds can be, for example, exposure to in excess of 85 decibels (dB) for eight hours or 100 dB for 15 minutes".

Dr A K Agarwal, renowned ENT surgeon and Professor of Excellence, Maulana Azad Institute of Medical Science, New Delhi

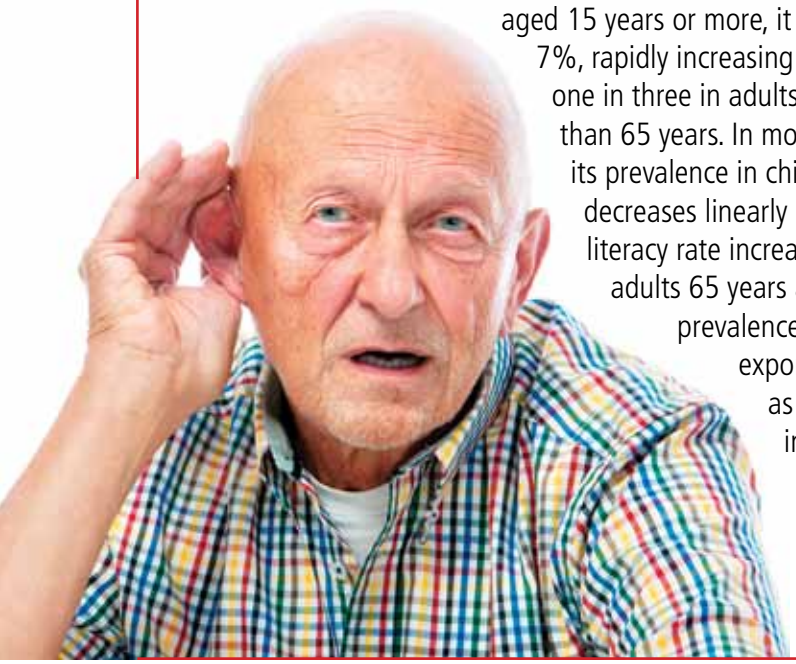
PREVALENCE OF HEARING LOSS

Globally, over 5% of world's population (more than 360 million population), have disabling hearing loss, according to new global estimates on prevalence released by the WHO on the International Ear Care Day. Of the total, 91% of these are adults and 9% are children.

Disabling hearing loss refers to hearing loss greater than 40 decibels (dB) in the better hearing ear in adults and a hearing loss greater than 30 dB in the better hearing ear in children. The majority of people with disabling hearing loss live in low- and middle-income countries. The prevalence of disabling hearing loss in children is greatest in South Asia, Asia Pacific and Sub-Saharan Africa.

Overall, the prevalence of disabling hearing loss in children all over the world is 1.7%. A person who is not able to hear as well as someone with normal hearing – at the hearing thresholds of 25 dB or better in both ears – is said to have hearing loss. Prevalence of hearing loss in the South Asia in the pediatric age group is 2.4%.

The prevalence of Disabling Hearing Loss among men and women in South Asia is 9.5% and 7% respectively, while its prevalence in South Asian children is 2.4%. Approx. 0.5-5 of every 1000 infants are born with or develop disabling hearing lossin early childhood. The prevalence of disabling hearing loss increases with age, i.e. prevalence in children is 1.7%, in adults aged 15 years or more, it is around 7%, rapidly increasing to almost one in three in adults older than 65 years. In most regions, its prevalence in children decreases linearly as parent's literacy rate increases. In adults 65 years and older, prevalence decreases exponentially as income increases.



communication device. Mobile radiation defects occur only if it is used for prolonged time. Try to consider mobile phone as a communicationdevice not an entertainment device. The human ear has a peak sensitivity of 3000 hertz which causes a sense of unease. A sound of this frequency causes shooting pain in the ear without any specific reasons like infection. This may be due to increased stress on the delicate structures of the internal ear or ear drum by the radiation. Using headphones at a sufficiently high volume level may cause many hearing problems including cochlear structure in the inner ear which gives rise to temporary or permanent hearing impairment or deafness".

Noise-induced hearing loss (NIHL)

The risk is higher especially in loud places as volume often needs to compete with the background noise. For example, the average sound level on a busy street

is about 80dB. In the Airo study, when the outdoor noise was a mere 65dB, listeners raised headphone volume levels to over 80dB1997. This figure shows the average chosen listening levels for our subjects across the different background noise levels2006. When we experience sound in our environment (TV, radio, traffic), normally these sounds are at safe levels, however long period of exposure to high sound pressure levels at high volume can be damaging to sensitive structures in the inner ear and cause noise-induced hearing loss (NIHL).

Extremely loud noise can cause permanent hearing loss. This is called noise-induced hearing loss. Listening to loud noise for long periods of time can damage the hair cells in the inner ear. Noise-induced hearing loss usually develops gradually and painlessly. A single exposure to an extremely loud

CONSEQUENCES OF HEARING IMPAIRMENT

Consequences of hearing impairment depend on the ear/s involved, the degree and the type of hearing loss and the age of onset. Due to distortion of sounds, differentiation of environmental sounds, including speech, is difficult; making sounds louder does not improve the clarity or quality of sound. Similarly, recruitment, which is an abnormal growth in loudness, a characteristic of damage to the inner ear, makes it difficult to tolerate loud sounds. For children with hearing impairment, congenital or acquired before development of speech and language, normal speech development is interfered with. With unilateral hearing impairment also, there is difficulty in localizing sound, resulting in reduced speech discrimination...

Consequences include inability to interpret speech sounds, often producing a reduced ability to communicate, delay in language acquisition, economic and educational disadvantage, social isolation and stigmatization. Communication and behavioural skills are influenced by a child's ability to hear. Hearing loss affects a child's social interaction; memory, comprehension and vocabulary development; emotional development, academic performance, speech perception and production. Children suffer from self-described feelings of isolation, exclusion, embarrassment, annoyance, confusion and helplessness. Barriers for seeking ear care services like social stigma related to diseases, lack of awareness, shortage of human resources, quacks treating wrongly, late identification of the problems, etc. need to be managed effectively. Hence, it is pertinent to review the current scenario of otological morbidities in Indian children and suggest possible interventions to fight against all odds.

Fifty percent of hearing loss is preventable through public health actions. Therefore, through appropriate public health measures, current burden of ear morbidities can be halved. For this, we need to know the strengths and weaknesses of our existing health care system.

PUBLIC HEALTH MEASURES FOR HEARING LOSS

From time to time, public and private sector enterprises plan at both small and large scale to help people with hearing impairment. But still, the services available and implementation status of actions to combat ear disorders is in a naïve stage

In 2006, the World Health Organization (WHO) released a new set of training manuals aimed at equipping health care workers in developing countries with simple and cost-effective methods to reduce deafness and hearing problems through actions at the primary level of health care. The Primary Ear and Hearing Care Training Resource addresses the urgent need for action to prevent and manage ear diseases and hearing impairment. They are designed to be useful to a wide range of people, from village health workers to more experienced health care personnel. The manuals can also be used to help communities understand common causes of deafness and hearing impairment and ways to prevent and/or treat the conditions. Vaccination against childhood diseases that can cause hearing impairment, good ear hygiene, appropriate use of medication, and avoidance of excessive noise are examples of simple ways of preventing deafness and hearing impairment.

Education of children with hearing impairment in India is just a little over a hundred years old. After Independence, improvements were seen with the establishment of many new schools in the 1950s and many programmes based on the new technology came up in the 1960s. The sixties saw the establishment of the All India Institute of Speech and Hearing in Mysore where facilities for diagnosis of hearing impairment in infants and young children were available. At present, over 500 schools for the hearing impaired children are available in the country. The Government established and administers some schools whereas the NGOs run many others. Most of the schools, still residential, admit children aged 5 years and above who spend the entire school year in the hostels; they go home only during summer vacation. Provision of vocational courses and sheltered workshops facilitate the spending ofalmost the entire lifetime of some students in these schools. Two colleges for the Deaf, one in Chennai, Tamil Nadu affiliated to the University of Madras and another in Valakam, Kerala conduct degree courses in Commerce and Art subjects; a third programme is run under the Indira Gandhi National Open University, New Delhi. Educating children with multiple disabilities is a difficult task. In India training programmes to train teachers to help children who are 'deaf-blind'

has only recently begun.

We need to make constructive efforts towards early diagnosis and treatment of hearing disorders. The issues in early identification to be addressed are (i) population/location of screening, (ii) technique/tools for screening, (iii) human resources for screening, (iv)cost, (v) challenges in screening, and (vi) intervention for the identified.

Few projects have been started with the aim of early diagnosis and treatment of hearing disorders. The Project of Prevention of Deafness undertaken at All India Institute of Speech and Hearing, Mysore, funded by the Ministry of Health and Family Welfare, Government of India, reported screening of 28,750 infants over a period of five years.

The Ministry of Health and Family Welfare, Government of India in 2006, launched the pilot phase of the National Programme in Prevention and Control of Deafness. One of the objectives is early identification, diagnosis and treatment of hearing loss. The services/facilities available for early intervention in the country are covered under the following: (i) Medical intervention, (ii) Aids, appliances and cochlear implant, and (iii) Auditory and speech-language training.

Educating children with multiple disabilities is a difficult task. In India training programmes to train teachers to help children who are 'deaf-blind' has only recently begun.

REHABILITATION

The earlier the parent/family accept the fact of impairment and follow a well-planned rehabilitation program under professional supervision, the better are the chances for the child and the family to lead a more normal life. Parental attitudes towards disability include inter alia acceptance, rejection, indifference and overprotection. Some parents work towards the development of the child, but feel the need to shelter and protect because of the disability. Overprotection denies the child the opportunity to achieve his potential in various areas of development.

Rehabilitation of persons with disabilities has gained momentum in India during the last decade with several states as well as the Union Government launching programmes for their benefit. Community Based Rehabilitation and Integrated Child Development schemes are two major thrust areas in this endeavour.

On account of the multidimensional facets of hearing impairment, R & D activities call for in depth studies, both inter and multi-disciplinary. This calls for synchronized development in the core discipline as well as in allied disciplines. Achievements in technology, bio-technology, information technology, and digital technology have ushered in developments in accessibility to digital programmable hearing aids, cochlear implant surgery, related rehabilitation technology and auditory genetic diagnosis. Exploration of indigenous technology and techniques is crucial to bring benefits of technological advances within the reach of the economically weakest among the disabled to meet their needs, whether for identification/diagnosis or habilitation/rehabilitation.

"Teenagers and young people can better protect their hearing by keeping the volume down on personal audio devices, wearing earplugs when visiting noisy venues, and using carefully fitted, and, if possible, noise-cancelling earphones/ headphones. They can also limit the time spent engaged in noisy activities by taking short listening breaks and restricting the daily use of personal audio devices to less than one hour".

Dr Rohit Visnoi, ENT surgeon, Sri Balaji Action Medical Institute, New Delhi

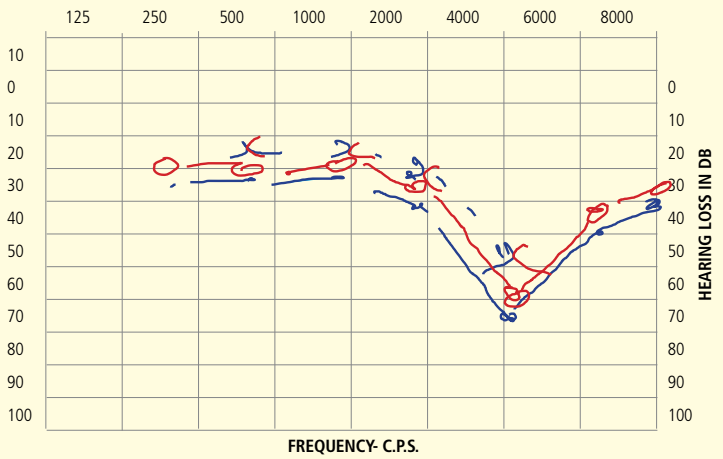
sound such as an explosion can cause a sudden loss of hearing. This is called acoustic trauma.

Safe listening depends on the intensity or loudness of sound, and the duration and frequency of listening. Exposure to loud sounds can result in temporary hearing loss or tinnitus which is a ringing sensation in the ear. In the event of exposure to loud, regular or prolonged, you run the risk

USING HEADPHONES: ARE YOU LISTENING?

BY DR. SUMIT MRIG

- Ear phones, headsets, leads, and bluetooth can cause impairment or loss or damage to hearing
- Drivers unable to hear sound warnings due to loud music causing accidents
- Ear gadgets cause many health ailments
- 1 in 5 teens suffer from some hearing loss
- Sound at 85 dB or below is considered safe.



The electronic gadgets and technologies were aimed to make life entertaining but not at the cost of one's own health. Improved technologies have made the mankind get entrapped in the comforts and luxuries, leading to imposition of many side effects on health. Ear phones and headsets are one such technology! Forced, improper or over use of ear phones, headsets, leads, iPod, and bluetooth can cause impairment or loss or damage to hearing. Their use not only affects the user but the surroundings too.

Exposing your ears to prolonged & high intensity of noise more than 85 db can lead to permanent hearing loss which can never be recovered back & permanent damage can occur.Cochlea is the main sense organ of hearing & has very delicate hair cells which detect sound frequencies. These hair cells can get damaged if exposed to prolonged duration of sound intensity of around 85- 125 db like from the noise of aeroplane or missile or gun firing or listening to head phones at very high volumes.

Once these hair cells are damaged they generally do not recover specially if the high intensity exposure is not controlled & patient may experience hearing loss at high intensities , continuous ringing or buzzing sensation called tinnitus, headache , irritation ,lack of sleep , depression & difficulty in routine day to day activities. Then they may require the support of hearing aids& when profound hearing loss occurs where hearing aids also don't benefit they may require a cochlear implant surgery.

Moreover, many people just get lost in the world of music with the use of earphones, headsets, and loud speakers while driving, specially on highways, making the driver unable to hear the sound warnings given by other people or vehicles; thereby paving way to accidents. People also experience loss of balance owing to messed up air pressure effects.

In addition, these gadgets being constantly exposed to dirt and moisture also increase the risk of infections and other ear diseases. Prolonged ear phone use also irritates the temporomandibular joint near the ear canal causing soreness and pain in the ear. Also, sharing the leads with family and friends is a big unsafe practice. The bacteria from one person's ear can travel to other person. Personal ear plugs are advisable.

People are advised to use ear phones in a subtle timed manner and buy only those products which fit their ear properly. Else, the skin inside the ear may get irritated or torn due to repeated adjustments. This may also cause bacterial infections.

Ear wax drains daily from our ears. Frequent prolonged use of ear leads hampers the movement of ear wax and may lead to conditions such as tinnitus (ringing of ears), pain in ears, infection, or even hearing loss.

These gadgets produce electromagnetic waves/currents which are proven to be really dangerous for the human brain. The idea of using electric currents to change the brain functions is not new. People using bluetooth daily often experience unexplained headaches.

The World Health Organization (WHO) aims to reduce the hearing loss cases and deafness by almost 50% by 2015, and by 90% over the next 15 years through the right mode of using earphones. Noise pollution is one of the most common causes of hearing impairments in adults.

The gadgets must not be used continuously beyond 15 minutes at one go. Otherwise, there is a hearing loss threat. Giving rest to ears in between is a must. Some brands are making ear phones that have to be inserted directly into the canal resulting in blockage of air passages leading to infections and hearing loss over a period of time. MP3 players should be used up to 60% of their maximum volume for maximum of 1 hour daily.

We should ensure regular cleaning of ear gadgets and also the ears. In case of any infection, the use of ear phones must be immediately discontinued and ENT doctor must be approached. Ear phones can be cleansed by immersing them in a bowl of lukewarm water with few drops of anti-bacterial soap; cleansing it thoroughly later and drain excess water and letting the earphones dry completely before reuse. Even hands should be washed thoroughly before using ear leads. In case of rubber or sponge covers, these must be changed at least monthly.

Ear plugs must be fitted in the ear with rotation. Never try to push it too far into the canal. Also, the removal of earphones must not be pulling harshly as it may damage the ear drum. Rather it should be twisted gently out of the ear. Older style, larger headsets that rest over the ear are far better than ear phones.With the right tools, we need the right approach and right attitude, to generate smarter version of ourselves!

(The author is Sr. Consultant & Head Dept of ENT, Primus Super Speciality Hospital, Gurgaon)

of permanent damage of your ear's sensory cells, resulting in irreversible hearing loss.

Make Listening Safe initiative

To mark the International Ear Care Day, celebrated each year on March 3, the WHO has launched the "Make Listening Safe" initiative to draw attention to the dangers of unsafe listening and promote safer practices. In collaboration with partners worldwide, the WHO will alert young people and their families about the risks of noise-induced hearing loss and advocate towards governments for greater attention to this issue as part of their broader efforts to prevent hearing loss.

Worldwide, 360 million people today have moderate to profound hearing loss due to various causes, such as noise, genetic conditions, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, and ageing. It is estimated that half of all cases of hearing loss are avoidable. To address this issue, the WHO collates data and information on hearing loss to demonstrate its prevalence, causes and impact as well as opportunities for prevention and management; assists countries to develop and implement programmes for hearing care that are integrated into the primary health-care system; and provides technical resources for training health workers.

The Governments also have a role to play by developing and enforcing strict legislation on recreational noise, and by raising awareness of the risks of hearing loss through public information campaigns.

Parents, teachers and physicians can educate young people about safe listening, while managers of entertainment venues can respect the safe noise levels set by their respective venues, use sound limiters, and offer earplugs and "chill out" rooms to patrons. Manufacturers can design personal audio devices with safety features and display information about safe listening on products and packaging.

(With inputs from Dr. Sunila Garg & Dr. Kalika Singh, Department of Community Medicine, MAMC & Associated Hospitals New Delhi)

Coping with the Menace

As the cases of swine flu are re-surfacing across the country, it is important to demolish myths about the disease and adopt the right ways to deal with its threat

BY DR SWAPNIL SHIKHA

With two deaths being reported recently, the threat of swine flu has re-emerged in the country. In the first instance, a 50-year-old H1N1 influenza-afflicted woman from Ahmednagar in Pune died,while a 35-year-old woman succumbed to swine flu while undergoing treatment at a private hospital in Visakhapatnam, Andhra Pradesh. The outbreak of H1N1 has caused panic among the people.

Swine flu is a respiratory disease caused by influenza viruses that infect the respiratory tract of pigs. The outbreak of this flu was first observed in Mexico in 2009 and declared a pandemic of H1N1 virus by the World Health Organization (WHO). Colloquially called swine flu, the resurgence of the H1N1 strain in 2015 has made it one of the most dreaded infections in India. Swine flu's relentless killing spree continues in India as it has made more than 2000 people succumb to it. The total number of people in India affected by the virus recorded more than 35,000 and is progressively rising each day. The worst hit states are Rajasthan, Gujarat, Delhi, Maharashtra, Telangana, Karnataka, MP & UP.

Decoding H1N1 virus

Influenza viruses are of three types designated A, B & C. The H1N1 is a subtype of influenza A. It gets transmitted through direct exposure or contact with infected pigs or through contaminated droplets of infected patients while coughing or sneezing. Early recognition of signs & symptoms of swine flu is a diagnostic challenge as it closely resembles that of seasonal flu. The patient complains of fever, chills, cough, sore throat, running nose, bodyache, headache, fatigue, diarrhoea and vomiting. With the advent of RT-PCR assays in a throat/ nasopharyngeal swab sample, the diagnosis of swine flu has become fairly easy & rapid. Further, India has stockpiles of 60,000 adult doses & 1000 paediatric doses of oseltamivir, the antiviral drug which is being used to treat the disease.

Dr Swapnil Shikha

Danger signs of swine flu

- Difficulty in breathing or shortness of breath
- Pain or pressure in the chest/abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting
- Flu like symptoms improve but then return with fever & worse cough

Myths & facts about swine flu

1. Myth: One can get swine flu by eating pork.

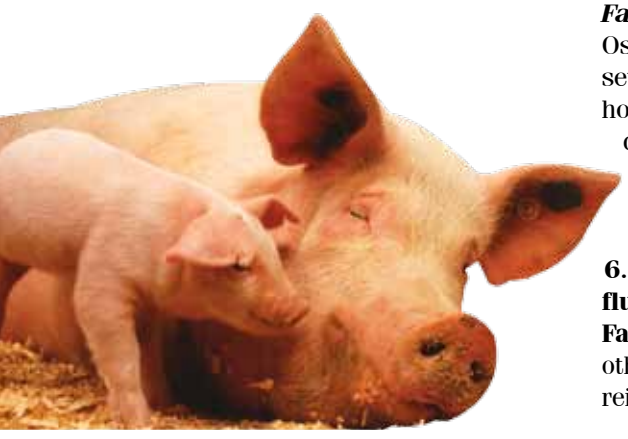
Fact: Despite the name of the disease being derived from pig, eating pork products doesn't spread swine flu. However, one can contract the infection through infected pigs. It spreads from person to person through aerosols

The blue/green surgical masks that are commonly available are only marginally useful. Such masks manage to block only large virus containing droplets whereas the viruses which are relatively smaller easily pass through. Special masks designated N-95 or N-99 offer greater protection against swine flu

containing the virus.

2. Myth: H1N1 outbreaks cannot be prevented.
Fact: The CDC recommends immunization to prevent infection in most of the people.

3.Myth: A seasonal flu shot offers protection against H1N1 as well.
Fact: The vaccinations for seasonal flu & H1N1 are different & to gain protection against both, one should receive both the vaccines.



4. Myth: Any surgical mask can protect against swine flu.
Fact: The blue/green surgical masks that are commonly available are only marginally useful. Such masks manage to block only large virus containing droplets whereas the viruses which are relatively smaller easily pass through. Special masks designated N-95 or N-99 offer greater protection.

5. Myth: There is no cure for swine flu.
Fact: The antiviral prescription drug Oseltamivir shortens the duration & severity of illness if taken within 48 hours of the onset of symptoms. It decreases the infectivity & protects against other strains of influenza as well.

6. Myth: One can contract swine flu only once during his life.
Fact: The H1N1 virus is just like the other seasonal flu viruses & can easily reinfect a person.

Tips for prevention

- Wash hands frequently with soap.
- Clean surfaces with a disinfectant or warm water regularly.
- Drink plenty of fluids.
- Avoid close contact with people who are sick. Keep your distance >1 metre from the others.
- Cover your mouth & nose with an N-95 mask (three layered).
- Change the mask every 6 to 8 hours.
- Avoid mass gatherings & crowded places & prefer staying at home.
- High risk individuals should go for vaccination.
- Eat immune boosting foods like whole grains, fresh vegetables & vitamin rich fruits.

To conclude, don't panic during an H1N1 outbreak. Keep a track of your signs & symptoms & consult your doctor immediately because timely diagnosis and intervention can be life saving.

(The author is Director, Amrapali ,Healthcare)

Bring the Excitement Back!

Generally, menopausal women report a decrease in their sex drive. Earlier they were not seen as women, but instead as sexless beings who had no business engaging in bedroom shenanigans. No longer so, they can now spice up their sex life…

BY DR SADHNA SINGHAL VISHNOI

Menopause is a normal condition that all women experience as they age. It includes any of the changes a woman goes through just before or after she stops menstruating, marking the end of her reproductive period.

There are many symptoms like irregular period, lower fertility (as estrogen hormone levels fall), vaginal dryness(may be accompanied by itching, discomfort in terms of pain during intercourse), hot flashes, disturbed sleep, urinary problems, and moodiness, fat deposition in abdomen and hair loss. Irregular period is usually the first symptom. Some may experience a period every 2-3 weeks, while may not have one for months at a time. About one in five women residing in India are likely to experience menopause by the age of 41, according to a study, the onset of menopause usually begins between ages 45 and 55, with a worldwide average of 51. Premature menopause is the end of

Dr Sadhna Singhal Vishnoi

menstruation before age 40 and affects about 1% of women worldwide. The average menopausal age in India is before 45 years.

The study found that premature menopause was most common in rural areas, as well as among agricultural workers, women who were illiterate and women who had a low body mass index.

Malnutrition and poverty are believed to be contributing factors to premature menopause; however, the study did not address the causes. The results are significant because most health programs in India focus on women of reproductive age. It is high time that we started to focus on post-menopausal women because of increasing life expectancy in India and because of the health risks associated with premature menopause. However, some health experts have questioned the study's methods and conclusions and called for more research into the issue.

Usually around 40 yrs of age, women tend to be moody; sometimes they feel like having more sex and sometimes not at all. Here the husband should under the importance of indulging in tender touch with their partner whenever they get an opportunity, if not sex, in the strict sense of the term.

Lowering Sex Drive

Menopause typically occurs in a woman's late forties to early fifties. It is a normal part of aging.It affects their sex drive considerably. Just when you think that you have finally got menopause under control, one of the biggest hurdles that comes flying right at you is that you are no longer interested in sex. Loss of sexual desire is one of the most common symptoms of menopause, with somewhere between 20% and 45% of menopausal women reporting a decrease in their sex drive. If you are frustrated by this lack of libido, read on and find out what you can do to improve your sex life after menopause.

Sex during and after menopause has always been an issue of great debate and every woman feels a different way about it. In the past, sexual intercourse after menopause was viewed with horror. Many people wondered how elderly, infertile women dared to satisfy their sexual urges once they had lost their reproduction abilities. Menopausal women were not seen as women, but instead as sexless beings who had no business engaging in bedroom shenanigans. Thankfully, this view about sex during menopause is slowly but surely changing and it is now a topic that is open for discussion.

Menopausal women are now understood to be as feminine as they ever were. Most women who experience menopause take it upon themselves to continue their sexual

> Many menopausal women face a lot of problems on the sexual front. Having to deal with mood swings, hot flashes, depression, and vaginal dryness that makes sex painful, it's no wonder many menopausal women seem to lose their interest in sex

life. Yet, many menopausal women face a lot of problems on the sexual front. Having to deal with mood swings, hot flashes, depression, and vaginal dryness that makes sex painful, it's no wonder many menopausal women seem to lose their interest in sex. However, it is important to know that you are not alone.

During menopause, sex drive can drop to very low levels. Some women find they don't think about sex nearly as much as they used to before menopause. Others find they want to have sex, but just aren't enjoying it enough to make it worth the effort. Decreased libido is thought to be due to lowered levels of estrogen, progesterone, and testosterone present in your body during menopause. Each of these hormones has a specific role to play in making you experience sexual desire. Estrogen helps you to feel heightened sensitivity during sexual intercourse. Progesterone keeps your libido up. Testosterone, a male sex hormone, boosts sexual desire and lubricates your vagina. When these hormones drop, so does your overall desire for sexual intercourse. The symptoms that come along with menopause often don't make you feel much like having sex. Just a few of the symptoms that may be decreasing your libido or causing you to avoid sex include vaginal dryness.

From Pleasant to Painful

A common complaint of menopausal women, vaginal dryness can make your vagina too delicate to handle penetration. Declining estrogen levels prevent increased blood flow from traveling to your pelvis. The result is the thinning of your vaginal walls, and less lubrication during sex. Intercourse can range from being uncomfortable to extremely painful, and can even cause spotting or light bleeding. Many women in menopausesimply cannot feel the desire for sex because of painful intercourse.

Constantly having to deal with hot flashes, night sweats, and insomnia can leave you feeling very tired and irritable. When you are thus fatigued, the last thing you probably want to do is have sex. Constant mood swings can make it difficult to plan sex in advance, or get into sex while it's happening. You may feel like going for sex one minute, but you may be completely against it the next. Many menopausal women also suffer from mild or major depression. Feelings of guilt, unhappiness, and frustration can really cause your libido to drop.

Self-image is often a major factor in a woman's sex drive. If you feel uncomfortable with the way your body has changed during menopause, you may not be willing or able to share physical intimacy with someone else. Incontinence, weight gain, and changes in your skin and breasts can all affect the way you feel about your sexuality. Women who have undergone surgical menopause often have a very difficult time accepting their new bodies.

Treatment

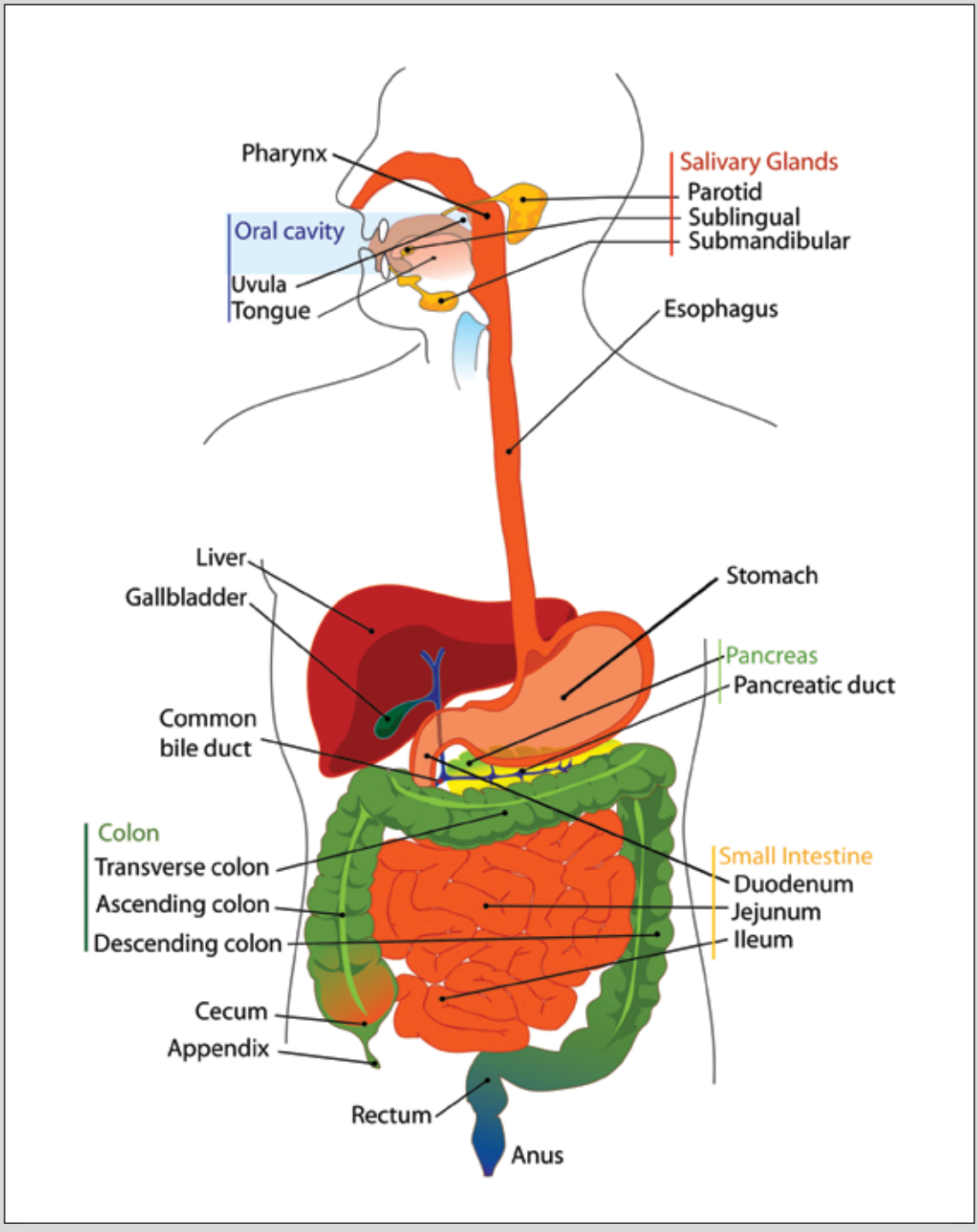
While many women are happy with their new lowered sex drive and do not wish to seek treatment, a variety of treatment options are available if you are experiencing a lowered sex drive as a result of menopause. If low libido interferes with personal relationships, it may be a sign that it is becoming problematic. Talk to your doctor about your symptoms and choose a treatment option that's right for you. Using lubricants during sex can make intercourse less painful and more enjoyable. Though lubricants will not provide long-term relief for your low libido, thy can at least provide temporary relief. Also, do plenty of exercise, avoid stress, make sure that the bedroom is not too hot, practise deep breathing, yoga and muscle relaxation to sustain the excitement in your sex life.

(The author is Obstetrician and Gynaecologist, Endoscopic Surgeon, Sri Balaji Action Medical Institute, New Delhi)

The Devil in the Food

Though there are several factors responsible for colon cancer, you are advised to avoid high fat intake, as the digestion of fat leads to the formation of cancer-causing chemicals – carcinogens

BY DR PRADEEP JAIN



If you are experiencing symptoms like blood (either bright red or very dark) in the stool, diarrhoea, constipation or feeling that the bowel does not empty all the way, stools that are narrower than usual, frequent gas pains, bloating, fullness, or cramps, weight loss for no known reason, feeling very tired and vomiting, you may be suffering from colon (colorectal) cancer or large intestine cancer.

The prognosis (chance of recovery) and treatment options of colon cancer depend on the stage of the cancer (whether the cancer is in the inner lining of the colon only or has spread through the colon wall, or has spread to lymph nodes or other places in the body). Further scenarios include whether the cancer has blocked or made a hole in the colon; whether there are any cancer cells left after surgery.

The prognosis also depends on the blood levels of carcinoembryonic antigen (CEA) before treatment begins. CEA is a substance in the blood that may be increased when cancer is present.After colon cancer has been diagnosed, tests are done to find out if cancer cells have spread within the colon or to other parts of the body. Colorectal cancer can be present for several years before symptoms develop. Symptoms vary according to where in the large intestine the tumour is located. The right colon is wider and more flexible. It can even be called relatively spacious as compared to the rest of the colon. Cancers of the right colon can grow to large sizes before they cause any abdominal symptoms.

Diagnosis of colorectal cancer can be made by barium enema or bycolonoscopy with biopsy confirmation of cancer tissue. Treatment of colorectal cancer depends on the location, size, and extent of cancer spread, as well as the health of the patient.Surgery is the most common treatment for colorectal cancer.Chemotherapy can extend life and improve quality of life for those who have had or are living with colorectal cancer.

A person's genetic background is an important factor in colon cancer risk. Among first-degree relatives of colon cancer patients, the lifetime risk of developing colon cancer is 18%.Even though a family history of colon cancer is an important risk factor, a majority (80%) of colon cancers occur sporadically in patients with no family history of colon cancer. Approximately 20% of cancers are associated with a family history of colon cancer.

Chromosomes contain genetic information, and chromosomal damage causes genetic defects that lead to the formation of colon polyps and later colon cancer. In sporadic polyps and cancers (polyps and cancers that develop in the absence of family history), the chromosome damages are acquired (develop in a cell during adult life). The damaged chromosomes can only be found in the polyps and the cancers that develop from that cell. But in hereditary colon cancer syndromes, the chromosomal defects are inherited at birth and are

Dr Pradeep Jain

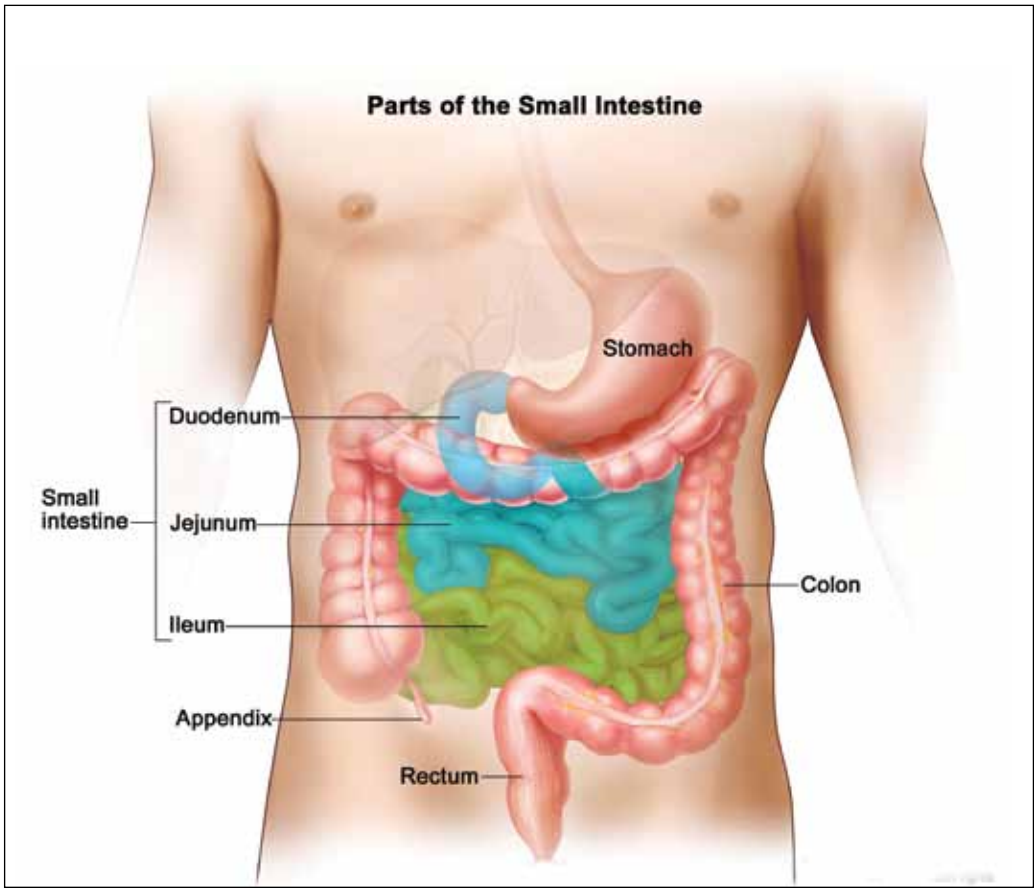
Some people are more likely to develop colorectal cancer than others. Factors that increase a person's risk of colorectal cancer include high fat intake, a family history of colorectal cancer and polyps, the presence of polyps in the large intestine, and inflammatory bowel diseases, primarily chronic ulcerative colitis

present in every cell in the body. Patients who have inherited the hereditary colon cancer syndrome genes are at risk of developing colon polyps, usually at young ages, and are at very high risk of developing colon cancer early in life; they also are at risk of developing cancers in other organs.

The colon and the rectum are the final portions of the tube that extends from the mouth to the anus. Food enters the mouth where it is chewed and then swallowed. It then travels through the oesophagus and into the stomach. In the stomach, the food is ground into smaller particles and then enters the small intestine in a carefully controlled manner. In the small intestine, final digestion of food and absorption of the nutrients contained in the food occurs. The food that is not digested and absorbed enters the large intestine or colon and finally the rectum.

The large intestine is about six feet long and acts primarily as a storage facility for waste; however, additional water, salts, and some vitamins are further removed. In addition, some of the undigested food, for example, fibre, is digested by colonic bacteria and some of the products of digestion are absorbed from the colon and into the body (It is estimated that 10% of the energy derived from food comes from these products of bacterial digestion in the colon). The remaining undigested food, dying cells from the lining of the intestines, and large numbers of bacteria are stored in the colon and then periodically passed into the rectum. Their arrival into the rectum initiates a bowel movement that empties the colonic contents from the body as stool.

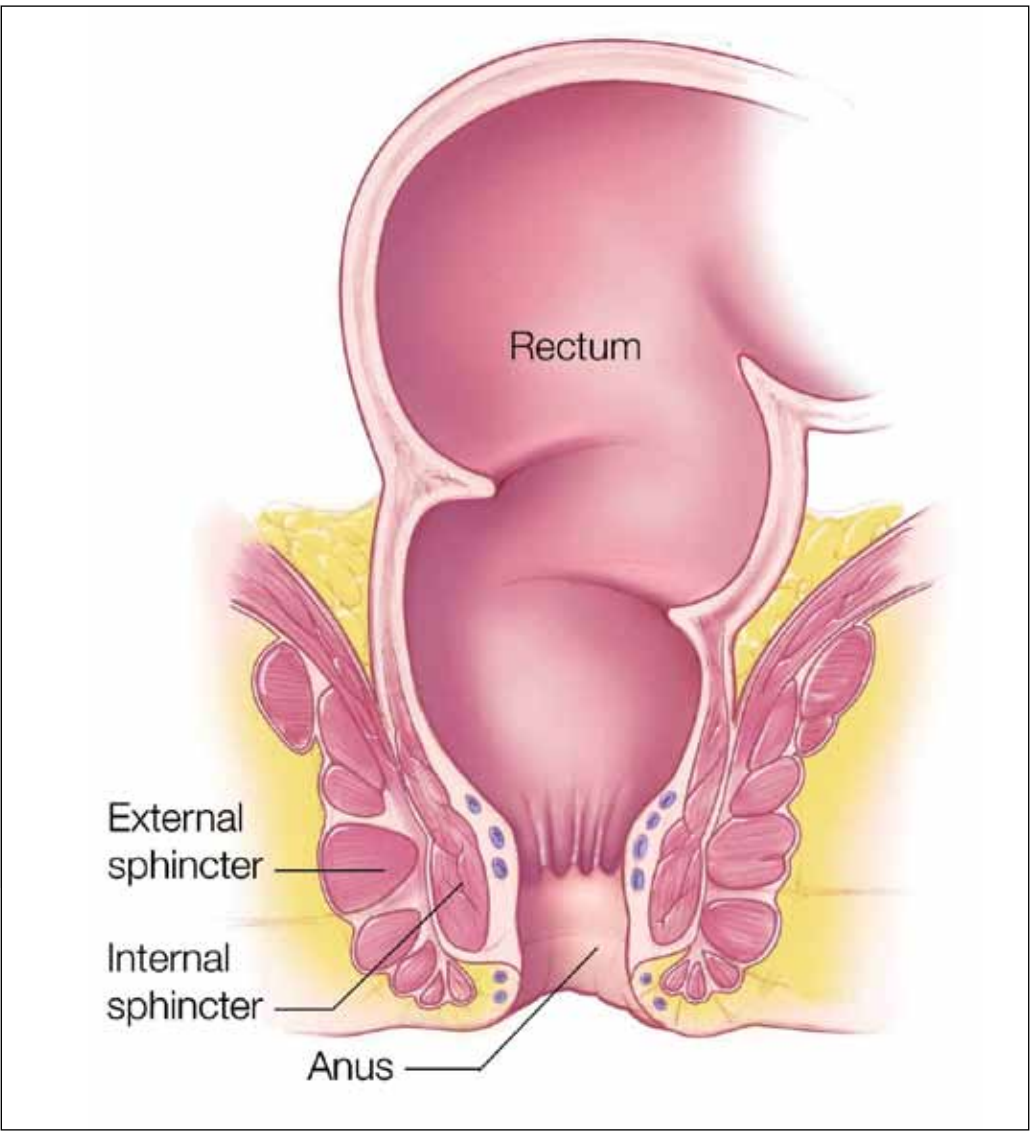
Most of the large intestine rests inside a cavity in the abdomen called the peritoneal cavity. Parts of the colon are able to move quite freely within the peritoneal cavity as the undigested food is passing through it. As the colon heads towards the rectum, it becomes fixed to the tissues behind the peritoneal cavity, an area called the retroperitoneum. The end portion of the large intestine, the part that resides in the retroperitoneum, is the rectum. Unlike much of the rest of the colon, the rectum is fixed in place by the tissues that surround it. Because of its location, treatment for rectal cancer often is different from the treatment for cancer of the rest of the colon, as we'll explain later.

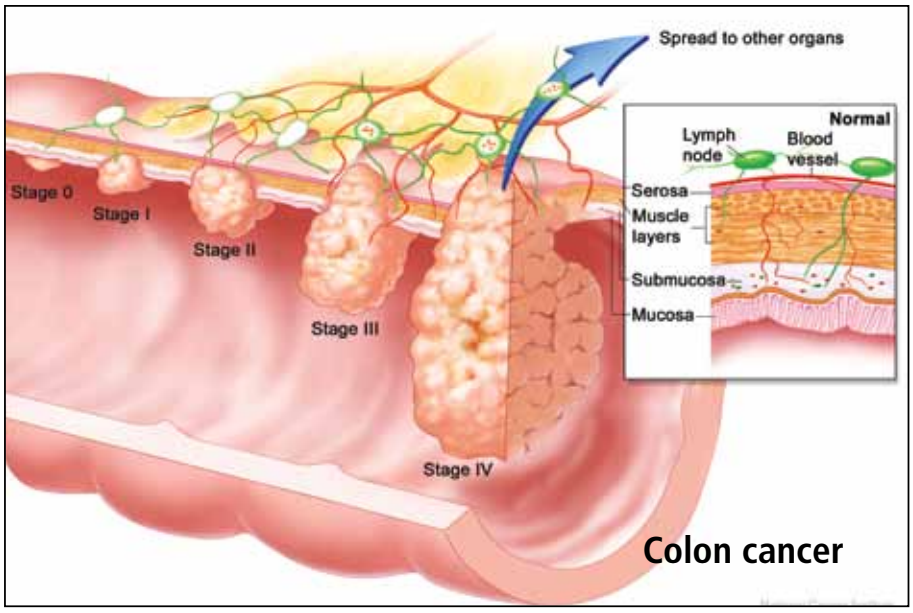


The colorectal cancer is not contagious (a person cannot catch the disease from a cancer patient). Some people are more likely to develop colorectal cancer than others. Factors that increase a person's risk of colorectal cancer include high fat intake, a family history of colorectal cancer and polyps, the presence of polyps in the large intestine, and inflammatory bowel diseases, primarily chronic ulcerative colitis.

Diets high in fat are believed to predispose people to colorectal cancer. In countries with high colorectal cancer rates, the fat intake by the population is much higher than in countries with low cancer rates. It is believed that the digestion of fat that occurs in the small intestine and the colon leads to the formation of cancer-causing chemicals (carcinogens). Diets high in vegetables and high-fibre foods such as wholegrain breads and cereals contain less fat that produces these carcinogens and may counter the effects of the carcinogens. Both effects would help reduce the risk of cancer.

The risk for cancer begins to increase after 8 to 10 years of colitis. The risk of developing colon cancer in a patient with ulcerative colitis also is related to the location and the extent of his or her disease



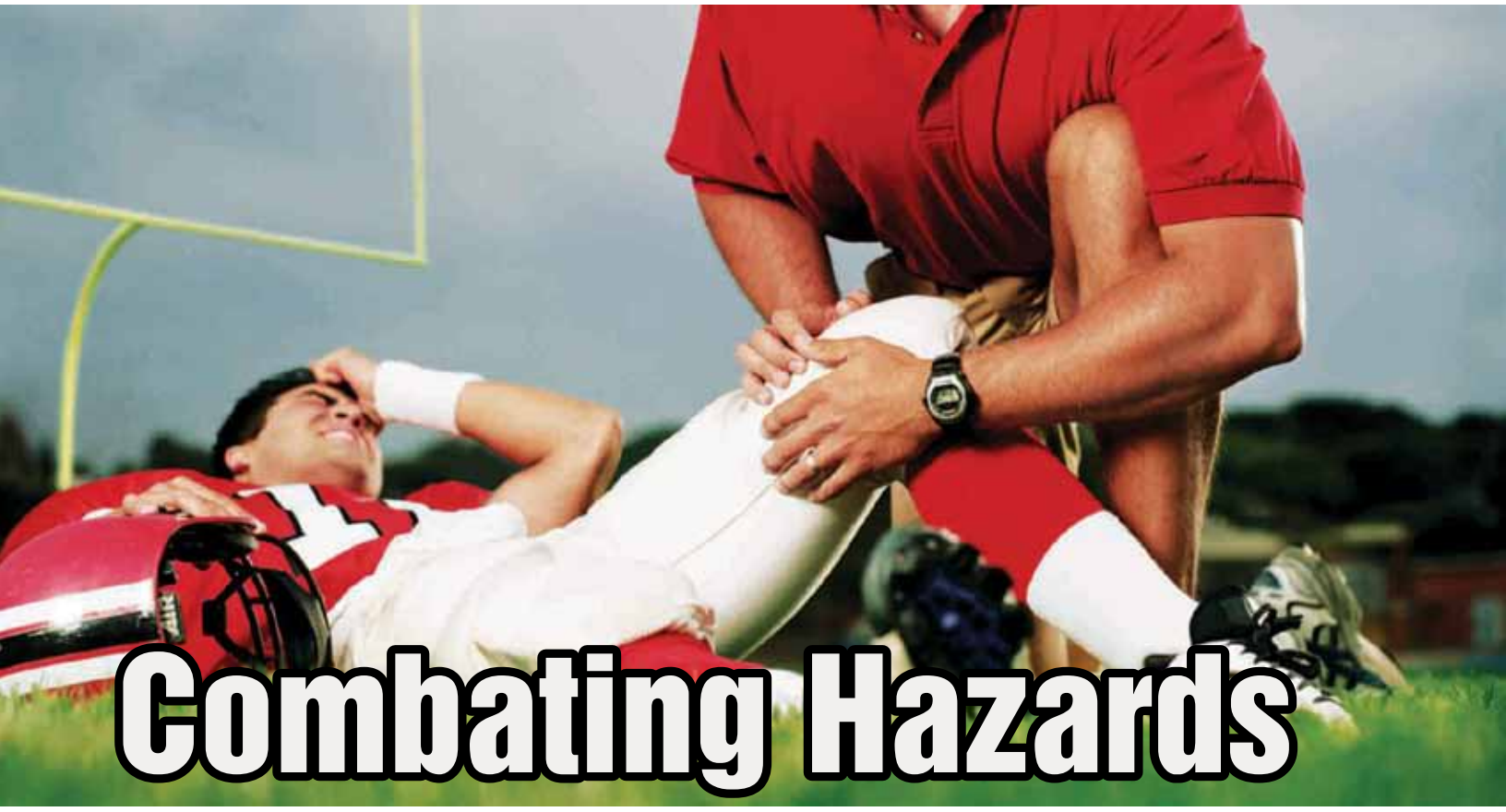


It is believed that most colorectal cancers develop in colorectal polyps. Therefore, removing benign (but precancerous) colorectal polyps can prevent colorectal cancer. Precancerous colorectal polyps develop when chromosomal damage occurs in cells of the inner lining of the colon. The damage produces abnormal cells, but the cells have not yet developed the ability to spread, the hallmark of cancer. Instead, the growing tissue remains localized within the polyp. When chromosomal damage increases further within the polyp, cell growth becomes uncontrolled, and the cells begin to spread, that is, they become cancer. Thus, colon polyps which are initially benign acquire additional chromosome damage to become cancerous.

Chronic ulcerative colitis causes inflammation of the inner lining of the colon. Colon cancer is a recognized complication of chronic ulcerative colitis. The risk for cancer begins to increase after 8 to 10 years of colitis. The risk of developing colon cancer in a patient with ulcerative colitis also is related to the location and the extent of his or her disease.

Patients at higher risk of cancer are those with a family history of colon cancer, a long duration of colitis, extensive colon involvement with colitis, and those with an associated liver disease, sclerosing cholangitis. Since the cancers associated with ulcerative colitis have a more favourable outcome when caught at an earlier stage, yearly examinations of the colon often are recommended after eight years of known extensive disease. During these examinations, samples of tissue (biopsies) are taken to search for precancerous changes in the cells lining the colon. When precancerous changes are found, removal of the colon may be necessary to prevent colon cancer.

(The author is Chief, Laparoscopic GI and GI Oncosurgery, Bariatric and Minimal Access Surgery, Shri Balaji Action Medical Institute, New Delhi)



Combating Hazards

As sports become highly competitive and demanding, their practitioners are being increasingly exposed to injuries. As a sportsperson, you must be aware of the types of various injuries and their possible treatments

BY DR. RAMNEEK MAHAJAN

Dr. Ramneek Mahajan

While being fitness freak is an in-thing today but testing our endurance now and then may cause some serious damage to our body. Sports today are associated with a lot of injuries and we hear about many sports people failing fitness tests every day. Let's understand few problems one can face while going through regular fitness regime, sports or running marathon.

RUNNER'S KNEE

It is the most common injury of long runners. There is pain behind the knee cap during running caused due to cracking of the cartilage under the knee cap, also called patella. This is also called Chondromalacia or Patello-femoral joint syndrome. It is a degenerative process.

The pain is gradual and often noticed during weight bearing exercises requiring bending of the knee. Pain aggravates by running, squatting, and using stairs.

The treatment is to stop the knee cap from rubbing on the thigh bone (femur) and rather slide up and down (as normally). Wearing orthotics, doing strengthening exercises of quadriceps muscles; and running backwards (rather than forward) are the steps to treat this condition. Surgery is seldom necessary.

In early stages, reducing stress on under patella allows healing and prevention of onset. These include running downhill, leg lifts, stretching of

calfs and hamstrings, using patellar brace, wearing extra support running shoes, and cycling. Physical therapy support can also be availed.

HAMSTRING STRAIN

Hamstring Strain or ''pulled hamstring'' is common in athletes participating in soccer, basketball, or track. It is an injury to one or more muscles at the back of the thigh. The strain can be a pull, partial tear or complete tear. According to their severity, these can be graded from 1-3 (with grade 3 being the complete tear).

Main reason for this injury is muscle overload, when the muscle is stretched beyond its capacity or suddenly.

The sufferer may notice a sudden sharp pain in the back of the thigh, causing a quick stop or even fall. Swelling, bruising, and weakness may accompany.

Treatment depends upon the severity and needs. Most of them heal with nonsurgical treatments. RICE protocol is followed including rest, ice, compression and elevation. Immobilization and physical therapy can further aid. Surgery is performed only when complete tear has occurred. PRP (platelet rich plasma) therapy is also under studies.

ITB SYNDROME

Iliotibial Band Syndrome is commonly seen in distance runners. This happens due to weak hip abductor muscles leading to muscle imbalance. In longer runs, when the athlete starts to increase the length of the runs, the hip adbuctors become fatigued (stressed) and require other attaching muscles to work harder. This sequence of events leads to increased tension in ITB causing the injury. Cyclists may also develop this problem.

Symptoms include pain or aching on the outer side of the knee. This pain usually happens in the middle or end of the run.

Temporary decrease or stopping in training, side stretching, strengthening of hip abductors, change of shoes, gentle foam rolling, and avoiding crowned surfaces (too much running around the track) are some self treatment tips.

> Achilles Tendinitis is a condition developed when tendon gets inflamed due to overwork. If continuously stressed, it can tear or even rupture. Excessive hill running or speed work, inflexible running shoes are some of the causes

SHIN SPLINTS

Shin Splints (medial tibial stress syndrome) refers to pain along the shin bone (tibia), which is the large bone in front of the leg. This is commonly seen in runners, dancers, and military recruits.

This happens when the athletes have recently intensified their training schedules, causing their bone tissues and tendons to overwork.

Rest, ice, and self care measures are enough to treat this condition. Proper footwear and exercise routine modification are the preventive measures.

ACHILLES TENDINITIS

Achilles is the large tendon joining two major calf muscles to the back of the heel bone. Achilles Tendinitis is a condition developed when this tendon gets inflamed due to overwork. If continuously stressed, it can tear or even rupture. Excessive hill running or speed work, inflexible running shoes are some of the causes. Runners who over pronate (feet rotating too far inward on impact) are even more susceptible.

The patient experiences sharp or dull pain close to the heel along the back of the tendon. Accompanying symptoms may include limited ankle flexibility, heat over paining area, nodular lump over the area, and cracking sound on moving the ankle.

Self treatment therapy includes stop running, icing the affected area several times a day, self massage, stretching calf muscles (after nodule goes away). Running is not be resumed until one can do toe raise without pain. Skipping rope, jumping jacks, and gradual running should be followed. Surgery is the last

resort. Staying away from weight bearing exercises is helpful.

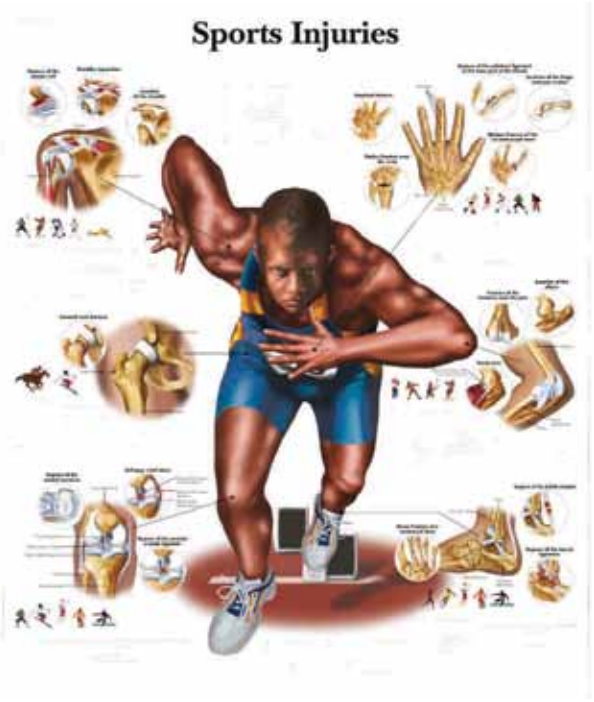
PLANTAR FASCIITIS

This is a common cause of heel pain involving pain and inflammation of plantar fascia which is a thick band of tissue running across the bottom of foot connecting heel bone to toes. It is also called Joggers Heel.

This condition causes stabbing pain with very first steps in the morning. Eventually, the pain decreases, but returns with episodes of prolonged standing or after getting up from seated position.

Runners, overweight people, and people wearing shoes with inadequate support are at risk.

Normally, the plantar fascia acts as shock absorber supporting the arch of foot. If the tension increases in the fascia, small tears can develop leading to this condition. It is common in 40-60 years of age group. People performing activities involving lot of stress on heel like long distance runners, dancers, aerobic dancers can suffer. Faulty foot keepers like being flat footed or abnormal way of walking can also add stress. Factory worker, teachers, traffic policemen can suffer from this due to prolonged hours of



standing.

Changing the way of walking can help a lot, or else foot, knee, hip or back problems can also develop. Stretching and strengthening exercises may provide some relief. Physical therapy, night splints (stretching calf and arch while asleep) and orthotics can help.

Steroids, shock waves, and surgery are last resorts.

PIRIFORMIS SYNDROME

It is a neuromuscular disorder involving compression of sciatic nerve or irritation of sciatic nerve causing pain, tingling, numbness in hips and along the path of sciatic nerve descending from lower thigh into the leg. This pain is relieved by walking with the involved foot pointing outwards.

The condition might develop from overuse, strain, or from anatomical variations in muscle-nerve relationship. Also, it can result after a previous trauma. Secondary causes are preventable. The prolonged sitting and taking precautions is in high-impact sports decrease the risk.

Warming up before physical exercise, correct exercise form, stretching and strength training also lower the risk. One must stop the activity immediately on experiencing the pain. Nerve conduction study and MRI confirms the diagnosis.

(The author is Director Orthopaedics and Joint Replacement, Saket City Hospital,New Delhi)

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Guard your Assets

With breast cancer cases on the rise, women should adopt a healthy lifestyle, avoid gaining extra weight, opt for breast-feeding and go for regular timely screening, including breast self-examination

BY DR AMIT AGGARWAL

The number of breast cancer cases has increased rapidly over the last few years worldwide. Unhealthy lifestyle is being blamed as one of the major reasons for this surge.

Fat from the meals acts as a source of food for the tumour cells to grow. This is more commonly seen in post-menopausal women because women in this age tend to gain more weight and accumulate more fat. Excess fat stores in the body produces some kind of hormones that lead to the development of such disease. Persistent high cholesterol levels in the blood have an important role in increasing the chances of developing cancer in older adults.

According to medical research, lowering the body weight can effectively decreases the risk for degenerative changes and such life-threatening diseases. Every 10 kg extra body weight puts a woman at cancer risk by 5 years early. Active lifestyle lessens the risk for breast cancer by almost 4.5%.

Irregular sleeping patterns also have damaging impacts on health. Researches show that women with family history of breast cancer should never work in shifts and avoid being flight attendants. These kind of jobs disrupt the body's biological rhythm, which increases the risk of disease. Other factors contributing while working in shifts include activity levels

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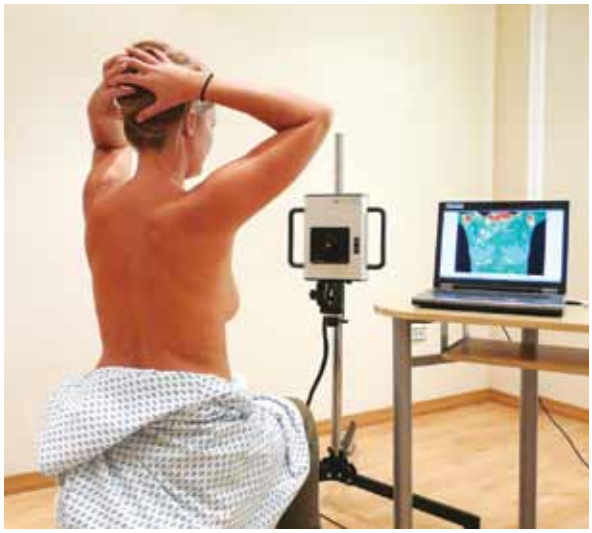


Recovery after delivery for a woman is very quick for those who breastfeed and the risks of obesity, type 2 diabetes, ovarian and breast cancer are also reduced

and Vitamin D levels they get. Studies have shown a link between light-dark inversions and breast cancer development.

Regular screening of breasts can actually help women. Mammograms are good at finding even the small breast cancers. This is actually the goal of screening; to identify the disease when least aggressive treatments can cure. Annual breast screening must begin at the age of 40 years. Thousands of lives get saved because of early detection.

Recently, actress Angelina Jolie got her breast surgery done so as to reduce her breast cancer chances. As per her genetic profile testing, she inherited BRCA1 gene from her mother who died of ovarian cancer. BRCA1 gene posed her to risk of both ovarian and breast cancer. She was told to have around 87% chance of developing breast cancer. The double mastectomy (breast removal) that she decided to have reduced her chance to almost 5%.

About 1 in 1000 people carry damaged form of this gene and their chance of getting the disease is far higher than a normal person. An average lady has about 12% chance of getting the disease, while woman with this gene has 60-90% chance of getting breast cancer.

Breast feeding is another personal choice with many benefits, both for the mother and the baby. It is a natural process, and the hormonal changes after childbirth help a lady breastfeed (lactate) and the babies are also born knowing the sucking reflex. Recovery after delivery for a woman is very quick for those who breastfeed and the risk of obesity, type 2 diabetes, ovarian and breast cancer are also reduced. These days new mothers tend to avoid breastfeeding thinking that their figure will go for a toss. But, the fact remains that breastfeeding helps the new mothers shed the extra weight easily.

Women need to put more attention to their body weight, inspect their breasts regularly, get their breasts examined at the clinic routinely, and go for mammogram every years after 40 years of age. Breast Self-Examination (BSE) is a screening tool so as to attempt detecting early breast cancer. It involves looking at and feeling each breast for any possible lump, swelling, or change in the normal appearance.

(The author is Sr. Consultant in Medical Oncology Department, BLK Super Specialty Hospital, New Delhi)

Hush ... Mother at Work!

In keeping with the need for concerted global action to support women to combine breastfeeding and work, whether in the formal sector, non-formal sector, or at home, the theme of World Breastfeeding Week (WBW) is Breastfeeding and Work

BY DR SUNEELA GARG/DR TULIKA SINGH

Globally, only 38% of infants are exclusively breastfed. In India, only 46 percent of infants are exclusively breastfed and rates have shown little improvement in the last decade. The value of breastfeeding for mothers as well as children has been emphasized by different agencies. Over the past decades, evidence for the health advantages of breastfeeding and recommendations for practice have continued to increase. The World Health Organization (WHO) says that breastfeeding reduces child mortality and has health benefits that extend into adulthood.

Healthcare professionals promote exclusive breastfeeding for the first six months of life, followed by continued breastfeeding with appropriate complementary foods for up to two years or beyond. To enable mothers to establish and sustain exclusive breastfeeding for six months, WHO and UNICEF recommend as initiation of breastfeeding within the first hour of life; exclusive breastfeeding - that is, the infant only receives breast milk without any additional food or drink, not even water; breastfeeding on demand - that is, as often as the child wants, day and night; and no use of bottles, teats or pacifiers.

Breast milk is the ideal food for babies, it provides all the energy and nutrients that the new-born needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life. Breast milk leads to increased intelligence quotient, and protects the infant against infectious and chronic diseases. Exclusive breastfeeding reduces malnutrition and infant mortality due to common childhood illnesses such as diarrhoea or pneumonia, and helps for a quicker recovery during illness. Breastfeeding contributes to the health and well-being of mothers, it helps to space children, reduces the risk of ovarian cancer and breast cancer, increases family and national resources, is clean, hygienic and easily available to infant.

The World Alliance for Breastfeeding Action (WABA) was formed in 1991 to act on the Innocenti Declaration (1990) to protect, promote and support breastfeeding. As part of its action plan to facilitate and strengthen social mobilization for breastfeeding, WABA envisioned a global unifying breastfeeding promotion strategy. A day dedicated to breastfeeding was suggested to be marked in the calendar of international events. The idea of a day's celebration was later turned into a week.

The World Breastfeeding Week (WBF) was first celebrated in 1992 by WABA and is now observed from August 1 to 7 in over 120 countries by UNICEF, WHO and their partners including individuals, organizations, and governments to protect, promote and support breastfeeding and improve the health of babies around the world. WABA itself was formed with the goal to re-establish a global breastfeeding culture and provide support for breastfeeding everywhere.

The theme this year is Breastfeeding and Work: Let's Make It Work. For 2015 World Breastfeeding Week, WABA calls for concerted global action to support women to combine breastfeeding and work, whether in

the formal sector, non-formal sector, or at home, ratification and implementation of maternity protection laws and regulations by governments, in line with the ILO Maternity Protection Convention, and inclusion of breastfeeding target indicators in the Sustainable Development Goals (SDGs).

Together to make it work, world breastfeeding week has the following objectives:

- Galvanize multidimensional support from all sectors to enable women everywhere to work and breastfeed;
- Promote actions by employers to become family/parent/baby and mother-friendly, and to actively facilitate and support employed women to continue breastfeeding;
- Inform people about the latest in Maternity Protection entitlements globally, and raise awareness about the need for strengthening related national legislation along with implementation;
- Showcase, facilitate and strengthen supportive practices that can enable women working in the informal sector to breastfeed.
- Engage and partner with specific target groups e.g. with trade unions, workers' rights organizations; women's groups and youth groups, to protect the breastfeeding rights of women in the workplace.

There are three key elements that determine success for women who work and breastfeed – time, space/ proximity and support.

- Time refers to adequate paid maternity leave to establish and support breastfeeding, paid breaks or reduction of work hours for breastfeeding and flexible hours to allow for more time with their babies.
- Space/proximity addresses keeping mothers and babies physically close to one another to facilitate adequate nursing, a safe location for breastfeeding or pumping and a work environment that is clean and without harmful chemicals.
- Support includes information about laws and benefits related to pregnancy and breastfeeding, positive attitudes by employers and co-workers regarding not only breastfeeding, but pregnancy and motherhood as well and elimination of employment discrimination around maternity and breastfeeding.

> Breast milk is the ideal food for babies, it provides all the energy and nutrients that the new-born needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs

By 2025, the Indian medical community's goal is to increase the rate of exclusively breastfed infants up to 6 months of life by 50%. Our strategies to achieve this goal are:

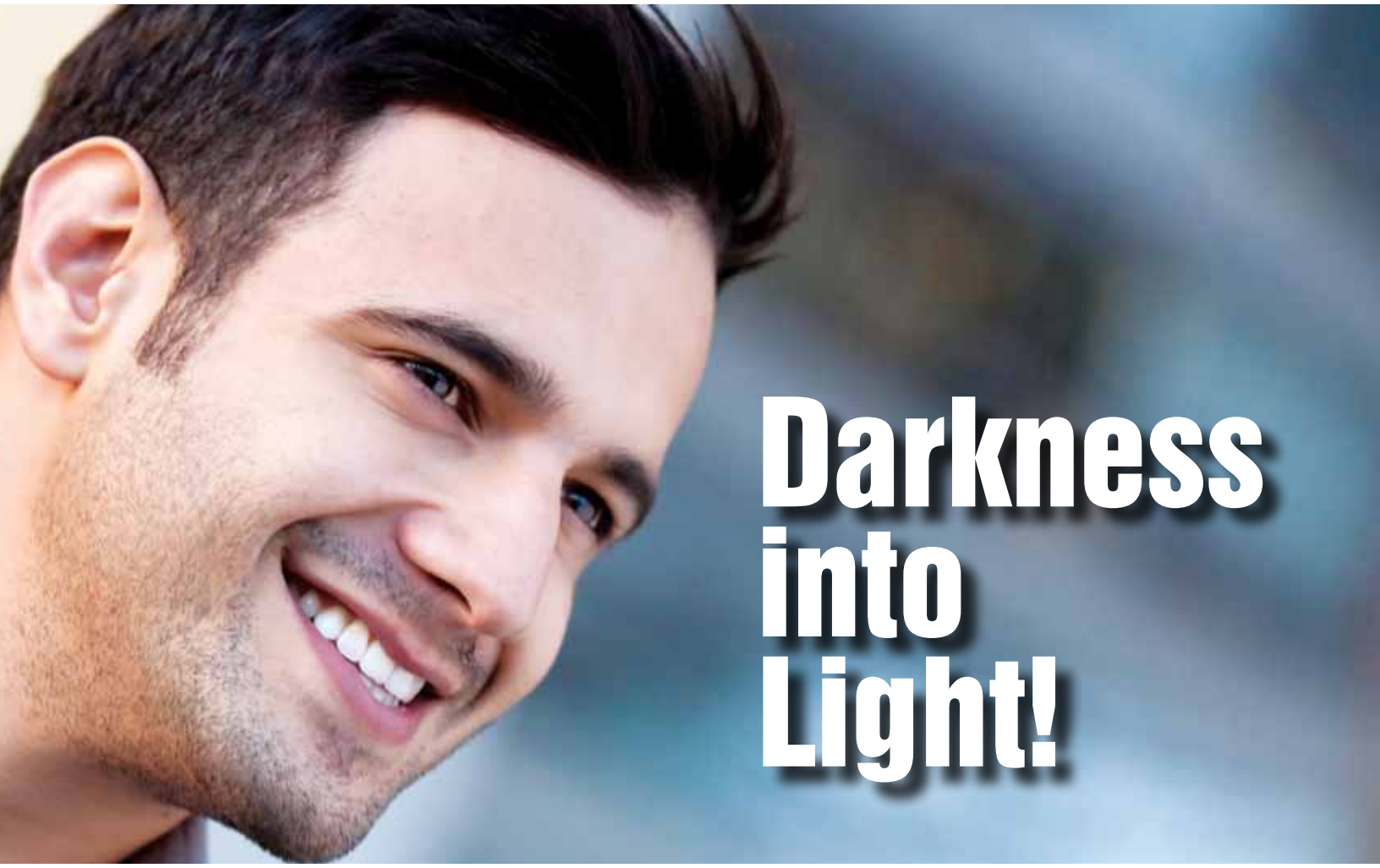
- Limit marketing of breast milk substitutes, empower women to exclusively breastfeed;
- Provide hospital and health facilities-based capacity and community based strategies to support exclusive breastfeeding.

The recommended actions include:

- Strengthen the monitoring, enforcement and legislation related to international codes of marketing breast milk substitutes;
- Enact six months mandatory paid maternity leave and policies that encourage women to breastfeed in the workplace;
- Expand and institutionalize the baby friendly health initiative (BFHI) in health systems and
- Provide counselling to improve exclusive breastfeeding.

Together we can make it work!

(The authors are from Department of Community Medicine MAMC and Associated Hospitals, New Delhi)



Darkness into Light!

Sick of using specs or contact lenses? Here is a bladeless, flapless and pain-free approach to vision correction… **BY DR MAHIPAL S SACHDEVA**

No matter how ready you are for a life without spectacles or contact lenses, the decision to undergo Laser Vision Correction is a big one. Your eyes are most important, and you want to make sure that the procedure you undergo offers you the maximum safety, precision and comfort. That is exactly why eye specialists now offer you the most advanced approach to laser vision correction.

The use of femtosecond laser has greatly enhanced the efficacy and safety of laser vision correction.With the SMILE method, you can have a laser vision correction procedure which is not only 100% blade-free, but which also allows you the luxury of no corneal flap, and which offers you a pain free treatment.

What is SMILE?

SMILE (Small Incision Lenticule Extraction) is not only a 100% blade-free approach to laser vision correction, but is a step superior to the NoBlade approach of Femto-LASIK. In Femto-LASIK, laser is used to create the corneal flap, which is then folded back by the surgeon to perform the LASIK procedure. While Femto-LASIK or No Blade LASIK is superior to the more

traditional method of microkeratome blade LASIK, it still means that a corneal flap needs to be created in your eye.

The SMILE method, by contrast, enables your surgeon to perform laser vision correction without any flap at all. There is no danger that the flap can get displaced, either immediately after the procedure, or even years after the procedure. And the corneal surface cells hardly get disturbed during the procedure, which means that there is hardly any pain or discomfort during the procedure.

How does the SMILE method work?

During SMILE, tiny pulses of laser light, about one quadrillionth of a second each, pass harmlessly through the outer portion of the cornea and form two uniform layers of microscopic bubbles just beneath the surface of your eye. This defines a "lenticule" within the cornea, which corresponds to the number which needs to be corrected.

The exact dimensions of these two layers of bubbles are determined by your surgeon based on what's best for your eye and your refractive error. The whole process is computer controlled for maximum precision to limits that are not attainable with any hand-held blade. The SMILE lenticule creation process takes only 20-30 seconds per eye.

Immediately after the lenticule creation process, surgeon will separate the two tissue layers where these bubbles occur, and then quickly extract the lenticule from the cornea, from an incision which is only 3-5 mm wide.

That's it. Your eye now begins to heal. You may experience some foreign body sensation or pain for a couple of hours, but you can resume all normal activities almost immediately after the procedure. There is no flap in the eye, so there is no need to be terribly careful.

Is it right for me?

If you are looking for blade-free treatment which is even safer and more precise than any other LASIK, the answer is yes.

SMILE (Small Incision Lenticule Extraction) is not only a 100% blade-free approach to laser vision correction, but is a step superior to the No Blade approach of Femto-LASIK. In Femto-LASIK, laser is used to create the corneal flap, which is then folded back by the surgeon to perform the LASIK procedure

SMILE procedure also creates the potential for outstanding visual results. More patients achieve 20/20 or better when SMILE is done. And patients report better quality of vision overall, particularly in their ability to see well in low light, such as at dusk or in the night. The treatment induces less aberration in the eye and also induces less dry eyes.

What are the surgical advantages of SMILE?

SMILE gives the surgeon many advantages over the conventional LASIK treatment. These include:

No Flap to Displace: Since there is no flap, flap displacements and flap related complications cannot occur.

Less Dry Eye: Because of the tiny incision, there is less cutting of corneal nerves, leading to less dry eye and improved corneal sensitivity after the procedure.

Better Corneal Biomechanics: Since the lenticule is removed from a small incision, the corneal biomechanical strength is less reduced after SMILE than with other techniques.

Much More Precision and Stability: SMILE does not involve using an excimer laser at all, only a femtosecond laser. The total energy introduced by the laser into the eye is up to 10 times less than an excimer laser. So inflammation is less, and there is more stability of the result. While an excimer laser is dependent on atmospheric humidity and other conditions, the femtosecond laser is much more robust. The result is a much more precise treatment. This ensures that the patient has a more comfortable and better visual quality after SMILE.

Where is SMILE offered?

SMILE is offered only in the very best laser centres across the world. In India, Centre for Sight NVLC has been a pioneer in SMILE with maximum SMILE procedures done across the world. At Centre for Sight, this technology is available at its Delhi, Vadodara, Mumbai and Hyderabad branches.

(The author is MS, Chairman and Medical Director at the Centre for Sight Group of Eye Hospitals)

Beyond Misconceptions

It is important for us to see the much misunderstood ancient science of Ayurveda in a clear perspective

BY DR. PARTAP CHAUHAN

Ayurveda has been widely recognized as a comprehensive system of natural healthcare congenial to the health needs of the modern world. However, despite its increasing popularity across the globe, many people (especially the youth) are often hesitant in going for the Ayurvedic mode of treatment.

The reasons could be manifold - lack of awareness about this ancient science, easy availability of modern medicine, and the youth's obsession with the so-called quick-fix solutions, among others. More than anything else, the reasons that have hampered Ayurveda's reach among the youth include the many misconceptions surrounding this treasure of knowledge.

Let's try and find out some realities about Ayurveda. The youth believes that allopathic pills provide instant relief; Ayurveda takes time. The reality is that there are both slow acting and fast-acting Ayurvedic medicines. It all depends on the underlying cause of the disease. Unlike modern medicines, Ayurveda doesn't just treat the symptoms; it attacks the root cause of

disease. And, if that cause is formidable, Ayurvedic cure takes time in overcoming it. Also, many patients seek Ayurveda only after trying all other forms of treatment. And by then, their disease often becomes chronic in nature. Unfortunately, in such cases, many people don't have the patience to allow Ayurvedic medicines to show their effect. When they see no immediate improvement, they quickly switch to other alternatives. It is important to realize that Ayurveda can be highly effective if the patient approaches it in early stages and gives it time to heal their body.

The youth believes that Ayurveda is nothing more than grandma's home remedies. The reality is Ayurveda is not just a form of treatment; it is a way of life. Yes, it is a lot about herbs and home remedies, but, that's not all to it. If adapted in their entirety, Ayurvedic principles can be extremely beneficial in making your life more balanced, healthy and productive. Moreover, Ayurvedic medicines are formulations made of herbs, minerals, oils, and other natural ingredients that are customized to suit an individual's Prakriti ('nature' as defined by body-mind combination). Also, because the root cause of disease is highly stressed upon, the medication cannot be as universally applicable as 'grandma's home remedies'.

The youth believes that Ayurveda is only meant for people with chronic ailments. The reality is most people do not approach Ayurveda in the initial stages of their problem as they believe it is only meant for those 'major' diseases. Agreed, it has been proven effective in treating chronic disorders - especially diabetes, arthritis, asthma, obesity, skin diseases, etc. - but it is also beneficial for people suffering from common ailments like indigestion, headache, cold & cough, fever, etc. Herbal medicines, Panchakarma therapies and customized diet and lifestyle plan are recommended to each patient in Ayurveda, irrespective of the severity of disease.

The youth believes that Ayurvedic principles are not in tune with modern science. The reality is – despite being the oldest science of healing in the world, Ayurveda is pretty much in tune with modern science. According to Ayurveda, each individual's body constitution is defined by his combination of doshas or humours, viz. Vata, Pitta and Kapha. An imbalance of these elemental combinations is the direct cause of physical disease. Though invisible, they are responsible for functions like providing energy, motility, circulation, digestion, and metabolism, among others.

Many patients seek Ayurveda only after trying all other forms of treatment. And by then, their disease often becomes chronic in nature. Unfortunately, in such cases, many people don't have the patience to allow Ayurvedic medicines to show their effect

For decades now, modern science has made several attempts to map the tridosha theory to knowledge about the human physiology. In fact, a recent article in the New York Times has indicated that scientists have found 'three kinds of ecosystems' in human beings, which could help classify people into distinct categories and lead to medical applications of its own. Who knows, this could be just another step in establishing Ayurveda's role in influencing modern science!

(The author is Ayurvedacharya and Director at Jiva Ayurveda)

BARRIERS TO ACCESS OF EYE AND EAR CARE

There is a disproportionately high burden of eye and ear morbidities in Low and Middle Income countries most of which is preventable. Since both eye and ear care are important public health issues in low resource countries, there are many common barriers which deter the access to these services

BY DR SUNEELA GARG, DEEKSHA KHURANA, DR RITESH SINGH

There are a wide range of factors that can be barriers to accessing eye and ear care in these countries. These barriers have been categorized into five levels viz. individual, community, facilities and infrastructure, health workers and policy makers while recognizing that there is considerable overlap and interaction between them.

At individual level, socio-cultural barriers with regard to ethnicity, race, age and gender exist. Race and ethnicity can result in beliefs and values that limit access to eye and ear care. For example there are differing beliefs regarding vaccine use across people of different ethnicity. Some believe that vaccines prevent disease occurrence while others believe they increase the risk of acquiring diseases.

Financial barrier in Low and Middle-Income Countries is common reason why patients do not follow through with ophthalmic and otological surgeries. Furthermore, the cost of the procedure is not the only cost associated with eye or ear surgery. Indirect or hidden costs such as transportation, food and accommodation costs for accompanying family members, lost work income, and costs of post-operative medications augment the existing financial barriers. For Example, free cataract surgery or free mastoidectomy still entail a significant cost burden on patients and their families in form of the above mentioned unstated costs.

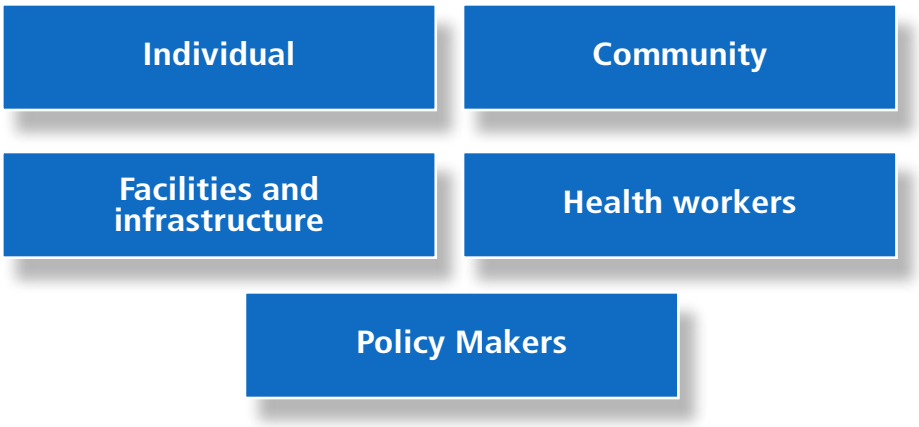


Figure: Levels of barriers to access of eye and ear care services

Gender acts as a unique barrier to access of eye and ear care services with women disproportionately bearing the burden eye and ear morbidities across the globe. The prevalence of hearing loss as per WHO 2012 global estimates is 360 million out of which an alarming 145 million (44%) are females. In case of blindness also, population-based surveys in Africa, Asia and many high income countries suggest that women account for 65% of all blind people worldwide. In low- and middle-income countries, the leading causes of blindness – cataract and trachomatous trichiasis – occur more frequently in women.

In context of women, time constraints and dependency syndrome have negative implication in uptake of eye and ear care services. Women workload at home and their care giving roles to other family members are also significant factors in delaying decisions to seek treatment. For example, single mother of four small children can have difficulties finding time/ someone to help with her responsibilities while she attends an eye/ear appointment. In areas where women have limited mobility, they may be unable to travel to health centers.

Moreover, delays and procedures in the provision of eye/ ear care services at the health care facility and complex system of referral in case of involvement of multiple departments dissuades women. There is also stigma & discrimination faced by women who suffer from eye or ear ailments. For example, women of marriageable age still face stigma for usage of spectacles or hearing aids. Also women's income is lower than that of men and they have less control over household resources. They may not be able to pay for treatment unless there is agreement from senior members (whether male or female) of the household.

Lack of awareness regarding importance regarding eye & ear care is a major challenge. For example a patient with discharging ear believes it is normal or a patient with glaucoma slowly loses peripheral vision, but may not notice until the condition is well advanced. They also have poor knowledge about the resources available for eye & ear care.

Myths and Misconceptions regarding eye and ear care worsens the situation. For example with regard to ear care, people believe that treatment from local practitioners is beneficial and that use of home remedies like instilling lukewarm oil, onion juice, garlic juice, cow urine etc. in the ear should be practiced. Regarding eye care, beliefs such a cataract must be "ripe" before it can be removed and that cataract can spread from one eye to the other are prevalent in the community.

Another significant barrier to eye and ear services arises at the level of healthcare facility. This may be because the patient may have long waiting hours due to crowding of the facility and lack of proper counseling of the patients particularly in the government setup. There may be lack of equipment for diagnosis and management of eye and ear diseases. These factors may result in patient either not visiting the healthcare facility at all or opting out of treatment before completion.

Barriers also exist at the level of healthcare workers in form of shortage of adequately trained health workers at different levels of healthcare delivery system for delivering eye and ear care services. There is also skewed geographic distribution of eye and ear care providers with low availability of these providers in the rural areas.

At the policy makers level, there is insufficient data to convince them regarding magnitude of eye and ear problems or effectiveness of interventions particularly ear care. Due to scarcity of resources with the countries, ear care programme in particular has low priority as compared to other health programmes viz. maternal and child health programme, HIV/AIDS etc which are more pressing health issues in view of the government authorities. In many low & middle income countries there is no concrete national policy in place particularly for ear care.

To summarize, some of the above mentioned barriers affect people of all ages, races and genders independent of income and other socio-economic factors. Other barriers are community or group specific and more amenable to localized solutions. These factors have an overlap and multipronged solutions are needed to address them.

(The author are from Department of Community Medicine, Maulana Azad Medical College, New Delhi)

International Conclave on Hearing for All

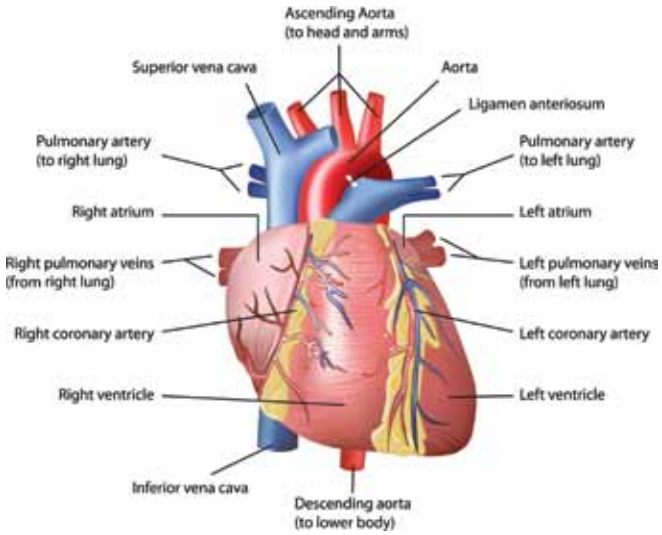
Sound Hearing 2030 under the aegis of Society for Sound Hearing with support from Knight Frank is organizing the International Conclave on 17th Sept 2015 at Maulana Azad Medical College, New Delhi. The theme of the Conclave is "Hearing for All: Together We Act". Sound Hearing 2030 is an initiative for the prevention and elimination of hearing impairment. Knight Frank is a corporate organization which is also involved in initiatives to address health issues.

The objective of the Conclave is to address the holistic approach of ear and hearing care with focus on prevention, early diagnosis, management and rehabilitation of hearing loss. The Conclave also aims to sensitize the stakeholders towards comprehensive care and management of hearing loss and provide them a platform for sharing the best practices.

The Conclave would be attended by 100 participants including ENT Specialists, audiologist, Public health experts, paramedical personnel, CBM partners, Ministry officials, NGO representatives, paramilitary officials, Deaf Association representatives and persons with disability.

Life Saving Surgery

A 50 year old Shiv Kumar Verma's heart had ruptured on account of a heart attack that he had suffered 10 days back for which angioplasty was also tried at a hospital in New Delhi. He was admitted in vaishali,Ghaziabad based Pushpanjali Crosslay Hospital in a very serious condition. Herewas taken up for an emergency operation with risk of death on table, explained to the relatives.



The ruptured portion of the heart (Septum) was operated and stitched by the able team headed by Dr. Jeewan Pillai. (Septum divides the left ventricle from the right ventricle and also prevents mixing of the deoxygenated blood with oxygenated blood).

The life saving surgery lasted for over 5 hours and then the patient was shifted to the ICU. The team of doctors included Heart Surgeon, Anaesthetist, Cardiologist, Kidney specialist and Physicians who were involved in the care of the patient. The patient has recovered well and is now fit to be discharged.

Most of such patients die with or without surgery. This patient was able to survive because of the overall coordinated efforts of the medical and nursing team at Pushpanjali Crosslay Hospital.

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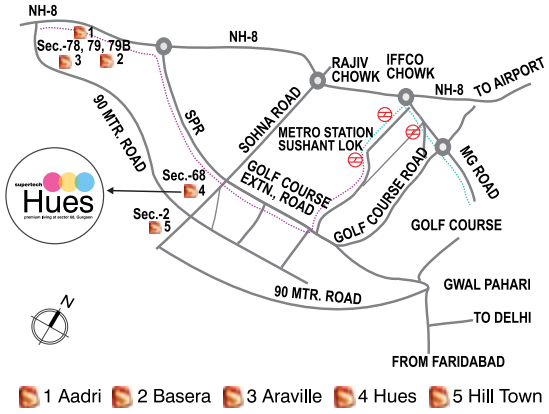

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