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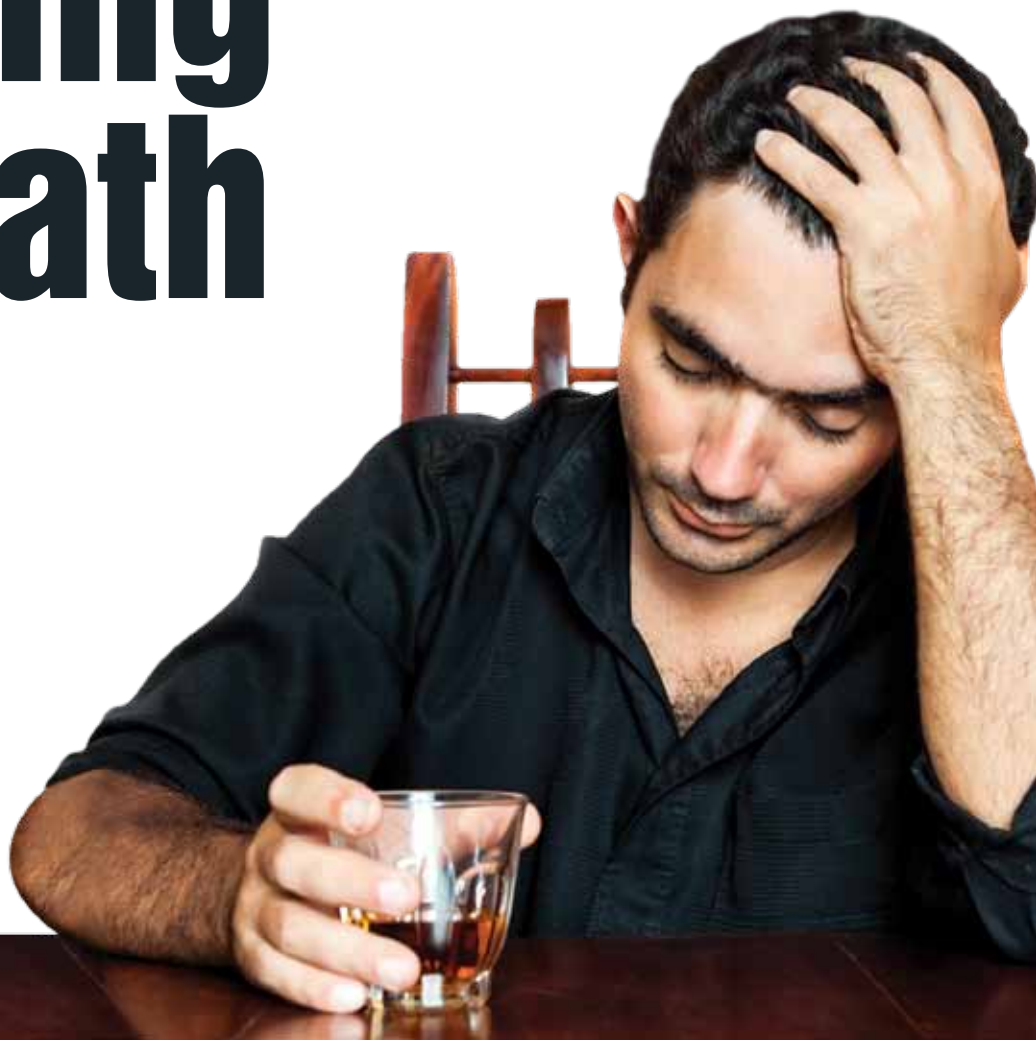
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Drinking to Death

Recent studies have found that the trend of heavy drinking is on the rise in India, increasing people's risk of developing several diseases including liver cirrhosis and cancer



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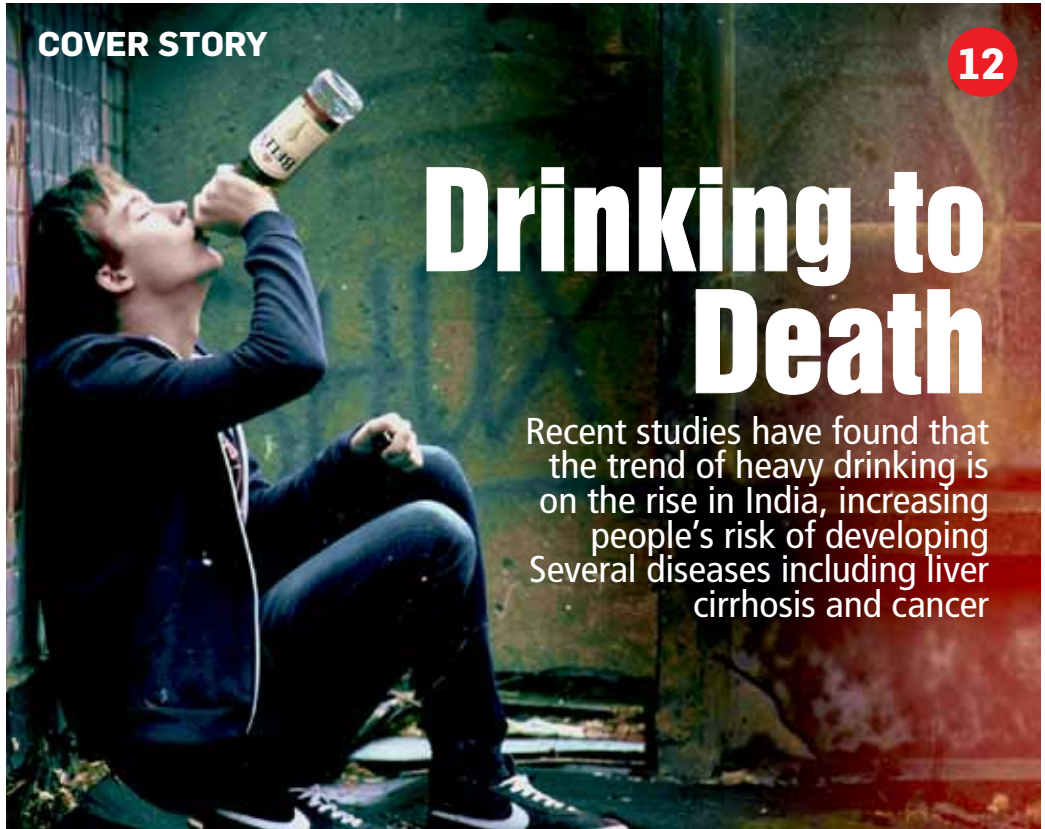
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The Lurking Shadow of Death form Disease

Dear readers thanks for your uninterrupted support, the journey of Double Helical in unfolding the multiple dimensions of healthcare scenario in India has come a long way. In the May issue, we are focusing on some of burning health care issues and trends like binge drinking, chewing of tobacco and brain tumor besides many more aspects of medical field. Liver cirrhosis can be life threatening. But if diagnosed early and treated, further damage can be minimised.

As a part of special coverage, the cover story of this issue of Double Helical is on developing trend of binge drinking now highly the visible across all sections of society within the country. Binge drinking is a serious health issue. The alcohol consumption can not only lead to dependence but also increases people's risk of developing several diseases including liver cirrhosis and some cancers

A recent report has pointed out how alcoholism cuts through classes and afflicts a poor man and an affluent woman alike. The trend of heavy drinking witnessed among the young of all countries has experts worried.

According to reports, alcohol consumption in India has risen 55 percent over a period of 20 years. More worryingly, the young are getting initiated to alcohol much earlier, while more women are indulging in hazardous and binge drinking. It can be dangerous and have long-term effects such as habit formation or other chronic conditions. Also tobacco is being considered as a silent killer. there is need for urgent intervention. The articles written by our regular columnist Dr Suneela Garg highlights dangers of its consumption. According the WHO estimates, India and China, the two most populous countries contribute to over 40% of the global tobacco users. The developing countries are still in the early stages of the tobacco epidemic and they have yet to experience the full impact of tobacco related disease and death already evident in more developed countries where tobacco use has been common for much of the past century. The globalising

epidemic of tobacco use is growing in developing countries which is being targeted by alarmingly industries with their attractive and deceptive marketing practices. Tobacco use is a significant factor in miscarriages among pregnant smokers, and it contributes to a number of other threats to the health of the foetus such as premature births and low birth weight and increases by 1.4 to 3 times the chance for Sudden Infant Death Syndrome (SIDS). Incidence of impotence is approximately 85 percent higher in male smokers compared to non-smokers, and is a key factor causing erectile dysfunction (ED).

The article 'Cutting off Excess Flab' written by Dr Pradeep Jain brings out that Bariatric surgery can be opted for when other weight loss methods such as diet management and physical exercise, are not effective. It is a misconception that this surgery restricts the absorption of nutrients causing malnutrition. The trend of bariatric surgery, generally referred to as weight loss surgery, has been fast catching up as one of best treatment options available in all major cities including Delhi/NCR, Chennai, Bangalore, Mumbai, and Calcutta. Bariatric surgery emerges as the best alternative to lose and manage weight in a planned manner.

As per a report, 20-25% people in India are overweight, of which 7-9% are morbidly obese which amounts to a staggering 2-2.5 million people. Incidence of childhood obesity is on the rise due to changing lifestyles. These people are more likely to develop obesity related complications at an earlier age. If not addressed today, this problem is likely to compound imposing heavily on medical resources.

We have many other informative stories and reports and guest columns penned by well-known and respected doctors in this issue of popular health magazine Double Helical. Happy your reading!

Amresh K Tiwary
Editor-in-chief

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Integrating Eye and Ear Care



Recently, a pilot project was successfully carried out to assess the feasibility of integrating ear and eye care services at the primary level. During the project, the vision technicians were trained in primary ear care

BY DR SUNEELA GARG/DR RITESH SINGH/DEEKSHA KHURANA

Both blindness and deafness are serious public health problems in low resource settings and our country is no exception to this. There are nearly eight million blind people in India who account for 20 per cent of the 39 million blind populations across the globe.

As per WHO estimates, six per cent of Indian population suffers from hearing impairment. The above are 16.5 per cent of the total disabled persons in the country. Deafness and blindness together become ever more compounded with India being home to approximately 485000 people who are deaf and blind.

In order to combat visual impairment, National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 per cent centrally sponsored scheme with the goal to reduce the prevalence of blindness. At present the programme is being implemented across all states and union territories in the country. On the other hand, National Programme for Prevention & Control of Deafness (NPPCD) was launched three decades later in the year 2006 and is still in stages of infancy. In the pilot phase, the programme was launched in 25 districts of the country. At present, this programme is being implemented in 281 districts (out of 640 districts) across 29 states and seven union territories of India.

In the context of India and other developing countries, there is relative lack of trained manpower for handling both particularly ear care especially at primary level. In India, as per the Indian Public Health Standards guidelines, there is a provision of one Ophthalmic Assistant at each Community Health Centre while there is no provision of ENT manpower at the Community Health Centre level. Since most of the eye and ear diseases are preventable and need common strategies to address them, upgrading the capacity of ophthalmic assistant to deliver both eye and ear care services emerges as a significant strategy for delivering affordable ear care services to marginalised sections of the society.



Dr Suneela Garg



Dr Ritesh Singh



Dr Deeksha Khurana

The vision centres were well equipped for primary ear and hearing care activities. IEC materials prepared by Society for Sound Hearing were designed keeping in mind the socio-demographic features of majority of common people

An attempt was made to study if ear and hearing care can effectively be propagated through the channels that are already established in eye care. Dr Shroff's Charity Eye Hospital, an established Eye Hospital in Delhi had

initiated a pilot project to assess the feasibility of integrating ear and eye care services at the primary level. During the project, the vision technicians posted at two vision centres (one located in Mustafabad Delhi and the other in a Rajgarh block of Rajasthan) were trained in primary ear care using the World Health Organization's 'Intermediate module for Primary Ear and Hearing Care (PEHC) workers' for duration of three months. The basic equipment to provide ear care at primary level was provided at two vision centres. The evaluation of the integrated eye ear project was carried out to devise strategies for sustainability of such project and the feasibility of provision of such services through already existing public health





existence of one and half year. The major cases seen by vision technicians are chronic suppurative otitis media, acute suppurative otitis media and wax impaction. A large number of patients were treated satisfactorily.

CONCLUSION


Based on the views provided by the pilot study, the idea of upgrading the capacity of ophthalmic assistant to function as both ophthalmic and ENT assistant can prove to deliver good results. It would be an effective way of delivering ear care services to the

infrastructure of the country. The comprehensive evaluation of the project was carried out using both qualitative and quantitative approach. The research tools adopted during the evaluation were focused group discussions, in-depth interviews of various personnel and observation check-list.

The stakeholders (representatives from the designated eye facility) were strongly in favour of integrating the ear care services with the already existing eye care services established under National Programme for Control of Blindness (NPCB). Though they felt that the project is not financially viable at present but in the long term once the people know about such services being provided at their doorstep the demand will increase manifold and the project would become self-sustainable. The trained vision technicians were highly motivated and felt empowered that they had been selected and trained to deliver both eye and ear care services. The clinical aspect of service provision was up to the mark. The vision centres were well equipped for primary ear and hearing care activities. IEC materials prepared by Society for Sound Hearing were designed keeping in mind the socio-demographic features of majority of common people. The target population of the vision centres was satisfied about the services being provided at the vision centres and the behaviour of the vision technicians.



People's knowledge about the ear care needs to be improved significantly. They are following many harmful practices regarding ear care. Many myths are found to be prevailing amongst common people. The case studies and FGDs showed that the ear morbidity is high in the locality and ear care services provided by qualified personnel are lacking or inaccessible to them. The vision centres have provided ear services to a significant number of individuals in its short

beneficiaries by carrying out optimum utilisation of the existing infrastructure and manpower. Integrating eye and ear care services at primary level would not only reduce the cost of intervention but also let the ear care service leverage the existing infrastructure of the eye care set up. 

(The authors are from Department of Community Medicine and Society for Sound Hearing)



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Coping with Blurred Vision

Generally, cataract needs to be removed only when vision loss interferes with your everyday activities such as driving, reading or watching TV. Once you understand the benefits and risks of surgery, you can make an informed decision

BY DR R S GARKAL



Age-related cataracts can affect your vision as the clumps of protein reduce the sharpness of the image reaching the retina. The lens consists mostly of water and protein. When the protein clumps up, it clouds the lens and reduces the light that reaches the retina. The clouding may become severe enough to cause blurred vision.

Most age-related cataracts develop from protein clumpings.

When a cataract is small, the cloudiness affects only a small part of

the lens. You may not notice any changes in your vision. Cataracts tend to “grow” slowly, so vision gets worse gradually. Over time, the cloudy area in the lens may get larger, and the cataract may increase in size. Seeing may become more difficult. Your vision may get duller or blurrier.

The term “age-related” is a little misleading. You don’t have to be a senior citizen to get this type of cataract. In fact, people can have an age-related cataract in their 40s and 50s. But during middle age, most cataracts are small and do not affect vision. It is after age

60 that most cataracts steal vision.

The risk of cataract increases as you get older. Other risk factors for cataract include certain diseases such as diabetes, personal behaviour such as smoking and alcohol use and the environment such as prolonged exposure to sunlight.

Wearing sunglasses and a hat with a brim to block ultraviolet sunlight may help to delay cataract. You should avoid smoking. Researchers also believe good nutrition can help reduce the risk of age-related cataract. They recommend eating green leafy vegetables, fruit, and other foods with antioxidants.

If you are aged 60 or older, you should have a comprehensive dilated eye exam at least once every two years. In addition to cataract, your eye care professional can check for signs of age-related muscular degeneration, glaucoma, and other vision disorders. Early treatment for many eye diseases may save your sight.

The most common symptoms of a cataract are cloudy or blurry vision. Colours seem faded. Glare. Headlights, lamps, or sunlight may appear too bright. A halo may appear around lights, besides poor night vision, double vision or multiple images in one eye. Frequent prescription changes in your eyeglasses or contact lenses. These symptoms also can be a sign of other eye problems. If you have any of these symptoms, check with your eye care professional.

Cataract is detected through a comprehensive eye exam that includes visual acuity test. This eye chart test measures how well you see at various distances. Dilated eye exam and drops are placed in your eyes to widen, or dilate, the pupils. Your eye care professional uses a special magnifying lens to examine your retina and optic nerve for signs of damage and other eye problems. After the exam, your close-up vision may remain blurred for several hours. Tonometry. An instrument measures the pressure inside the eye. Numbing drops may be applied to your eye for this test.

Symptoms of early cataract may be improved with new eyeglasses, brighter



Micro incision cataract surgery (MICS) is an approach to cataract surgery through incision less than 1.8 mm with the purpose of reducing surgical invasiveness, improving at the same time surgical outcomes

lighting, anti-glare sunglasses, or magnifying lenses. If these measures do not help, surgery is the only effective treatment. Surgery involves removing the cloudy lens and replacing it with an artificial lens.

A cataract needs to be removed only when vision loss interferes with your everyday activities, such as driving, reading, or watching TV. You and your eye care professional can make this decision together. Once you understand the benefits and risks of surgery, you can make an informed decision about whether cataract surgery is right for you. In most cases, delaying cataract surgery will not cause long-term damage to your eye or make the surgery more

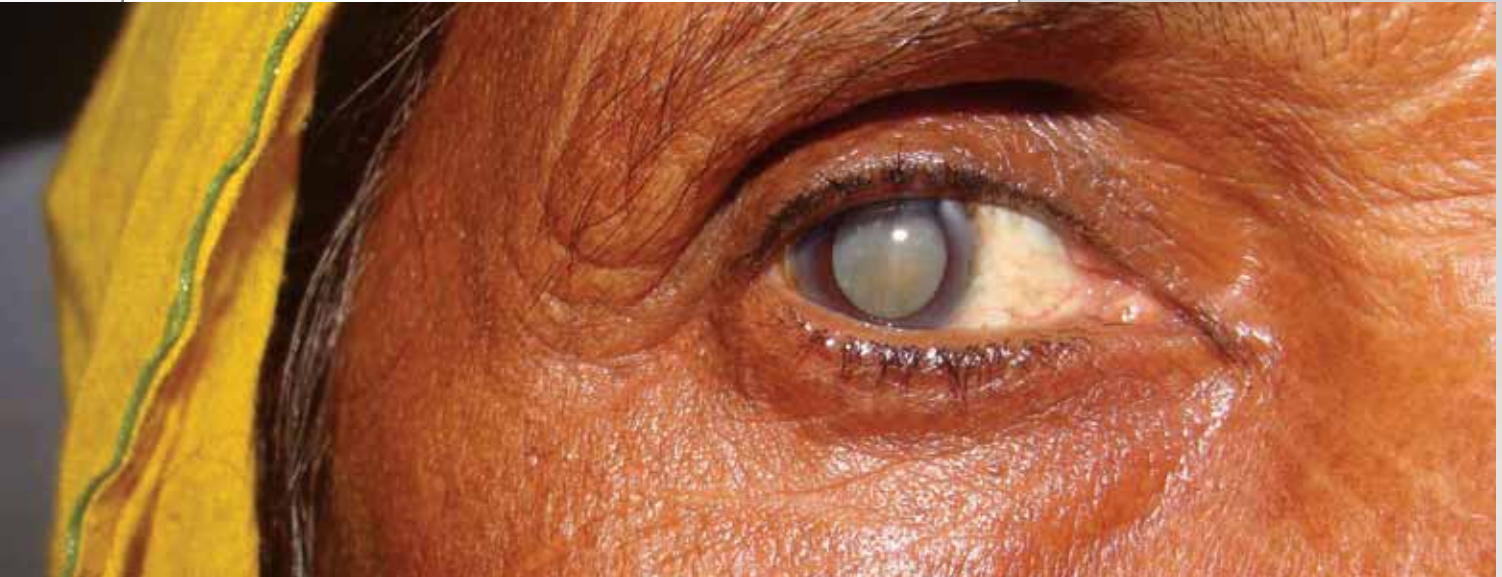
difficult. You do not have to rush into surgery.

Sometimes a cataract should be removed even if it does not cause problems with your vision. For example, a cataract should be removed if it prevents examination or treatment of another eye problem, such as age-related muscular degeneration or diabetic retinopathy. If your eye care professional finds a cataract, you may not need cataract surgery for several years. In fact, you might never need cataract surgery. By having your vision tested regularly, you and your eye care professional can discuss if and when you might need treatment.

As with any surgery, cataract surgery poses risks, such as infection and bleeding. Before cataract surgery, your doctor may ask you to temporarily stop taking certain medications that increase the risk of bleeding during surgery. After surgery, you must keep your eye clean, wash your hands before touching your eye, and use the prescribed medications to help minimize the risk of infection. Serious infection can result in loss of vision.

Today, surgery is performed through 1

Eye Specialist Par Excellence




Dr. R.S. Garkal has been a leading ophthalmologist of his era. Best known for introducing contact lens practice and manufacturing in India in the 1960s, he has been felicitated for his pioneering work repeatedly by national and global apex bodies. A natural orator, he has presented path breaking papers based on intensive research and experience around the globe including, India, USA, UK, France, Spain, Germany, South Korea and Japan, among others.

A brilliant surgeon and eye specialist, Dr. Garkal throughout his career spanning almost 50 years, maintained the traditional sanctity of the medical profession in the most pristine manner. Even today after his retirement, his patients revere him for his integrity and brilliant clinical diagnoses that on many occasions did away with costly and unnecessary tests and trauma for his patients. He was invited as guest speaker to University of Ohio (USA) to assist with their Continuous Education Programme and designated tutor for contact lens fitting to California Eye Institute (USA) over two consecutive years.

He established the First state-of-the-art Contact Lens Manufacturing Laboratory in India at New Delhi in 1964 under the name of Precision Laboratories of India. The technicians trained by Dr. Garkal further networked in setting up contact lens manufacturing infrastructures in premier medical colleges & institutions such as All India Institute of Medical Sciences and Maulana Azad Medical College at Delhi. He also established the first infrastructure in India for the manufacture of contact lens solutions & eye care based on his own extensive research & analysis.

mm incision. The use of the modern MICS intraocular lens (IOL) requires incisions of 1.8 mm. The increased availability of MICS IOLs allows to select the best IOL as per the demand of the patient. Long-term stability of the MICS outcomes and wide range of surgical capacity makes MICS the most modern and adequate approach to minimally invasive cataract surgery.

Micro incision cataract surgery (MICS) is an approach to cataract surgery through incision less than 1.8 mm with the purpose of reducing surgical invasiveness, improving at the same time surgical outcomes. The main confirmed advantages of MICS are the control and avoidance of surgically induced corneal astigmatism and the decrease of postoperative corneal aberrations.

Problems after surgery are rare, but they can occur. These problems can include infection, bleeding, inflammation (pain, redness, swelling), loss of vision, double vision, and high or low eye pressure. With prompt medical attention, these problems can usually be treated successfully. 

*(The author is leading
Ophthalmologist and Pioneering
Contact Lens Specialist)*



Complete Refractive Solutions



From simple spectacles to modern contact lenses and further on to advanced refractive surgeries, people now have corrective options to suit every condition and budget

In the field of refractive eye surgery, tailor-made solutions are now available to suit the patient's unique requirements, which also involve a convergence of technologies where if one procedure is not adequate for a patient, then the doctors can have a judicious combination of two options

BY DR MAHIPAL S SACHDEVA

Magnifying glass was discovered accidentally by the glass blower. The quest to see better began here. The first spectacles were used in China more than 2000 years ago! And the view has only become better since. From the days when patients had limited options for correcting their eye sight defects to the dawn of the era of 'total refractive solutions', the emphasis today has shifted towards qualitative improvement in vision.

Over the past few years, progress has taken place at a rapid pace in the field of refractive procedures. The refractive

surgeon is now able to provide a tailor-made solution to the patient's unique requirements. However, increasing the capabilities implies an increased liability on the part of refractive surgeons and refractive surgery centres to acquire the equipment required and master the techniques for these newer procedures.

COMMON ERRORS: For those not in the know, differences in the shape and/or size of your eyes can cause situations that affect the way you see things that are nearby or far away. These conditions are referred to as refractive error. Various types of refractive errors can occur, which are classified as: Myopia



(near sightedness), Hypermetropia (far sightedness), Astigmatism and Presbyopia.

Myopia or near sightedness is very common in which people have difficulties seeing objects in the distance. They need to use minus lens to see clearly.

Hypermetropia or far sightedness is also common where people have difficulty in focusing at near but can see objects at far distance clearly. They need plus lens to see clearly.

Astigmatism means that the cornea is oval like a football instead of spherical like a cricket ball, resulting in the blurred vision at a distance or near. This often occurs along with near sightedness or far sightedness.

Presbyopia is a condition in which focusing for near objects is reduced. It generally affects people over the age of 40 years and there is a need to wear reading glasses for this.

REFRACTIVE SOLUTIONS: Medical technology has advanced rapidly and now a variety of solutions are available to treat these various eye conditions. From simple spectacles to modern contact lenses and advanced refractive surgeries, people have corrective

options to suit every condition and budget.

Although LASIK has revolutionised refractive surgery and is widely accepted, refractive surgery is no longer something just for risk takers or for the rich & famous. Today, the mantra in refractive surgery is 'fit patient to the procedure' and not the other way round. It means that the refractive surgeon should be well versed with the various refractive procedures available and based on the specific requirements of the patients, use one or more procedures to provide spectacle independence. But even as more options are being made available and costs are reducing, safety should remain the most important criterion for any procedure.

Undeniably, there's a lot of cutting edge research going on to develop newer products and technology for refractive procedures. Newer research in both LASIK and lens-based procedures holds promise for the future and has target cases to cater to. We are seeing a convergence of technologies and procedures, and if one procedure is not adequate for a patient, then we can have a judicious combination of two procedures.

This case is known as 'Bioptics' which

essentially is a combination of Phakic intraocular lens implantation followed by an ensuing laser refractive procedure like LASIK. In the coming year, we may see an increase in the use of multiple procedures to achieve spectacle independence.

The patients need to update themselves on recent developments in refractive surgery. We have procedures which improve the vision sharpness and depth perception. These have led to very big levels of the patient's satisfaction. But they need to be careful about the surgeon and refractive surgery factor. The deciding factors should be the surgeon's ability to mix and match the procedure to suit their specific and unique requirements. With far better results being achieved with various procedures, ophthalmologists are now much more aggressive in offering you personalised vision corrective solutions, tailor-made and suited to your needs.

Medical technology has advanced rapidly and now a variety of solutions are available to treat refractive errors. From simple spectacles to modern contact lenses and further on to advanced refractive surgeries, people now have corrective options to suit every condition and budget.

However, an increasing number of people want to completely do away with glasses and contact lens. In this article we take a look at the latest refractive procedures which improve both quantity & quality of sight. These procedures are either cornea based or lens based

CORNEA– BASED PROCEDURES

Over the years, laser eye treatment or LASIK has made an enormous difference to people with near-sighted, far-sight and astigmatic vision problems. A giant leap in laser refractive surgery now aims at improving upon patient's vision both quantitatively and qualitatively. An instrument called the aberrometer is used to map the imperfections (aberrations) of the eye. These aberrations are then removed using the laser.

LASIK: It is a skilled procedure that treats tissue of the cornea and reshapes it in a manner that reduces myopia (minus power) hyperopia (plus power) and astigmatism (cylindrical power). In this procedure an instrument known as a microkeratome is first used to make a thin flap of the cornea. The flap, which remains attached on one side, is then folded back. Next, the cool laser light from the Excimer laser ablates i.e. it removes the predetermined amount of tissue to reshape the cornea with great accuracy and precision to correct the individuals refractive error. The corneas is made flatter to treat nearsightedness, steeper to treat farsightedness and/or more spherical to treat astigmatism. Finally, after the laser ablation, the cornea flap is laid back in its original position, where it bounds instantly. Due to cornea's extraordinary natural bonding qualities, no stitches or sutures are required. Even an eye patch is not required.



CUSTOMISED Lasik (zyoptix-100): It is a much more advanced and sophisticated form of LASIK. It is a wavefront guided LASIK or customised LASIK. Its highly sophisticated technology allows the surgeon to correct not only glasses numbers but the aberration in the eye. It thus offers personalised and customised vision solutions for the patients and produces superior vision, even during night. It also can be done in previously lasered eyes and can correct higher refractive errors as compared to LASIK.

EPI-LASIK (Epithelial LASIK): It is a refractive surgery procedure very much like LASIK. It is an alternative for patients with thin corneas who would not otherwise be candidates for the conventional LASIK procedure.

Intrastromal Corneal Ring Segments (Intacs): These are semi-circular pieces of plastic that are implanted within the

cornea to treat mild forms of myopia. They also are sometimes used for other conditions affecting the cornea, such as keratoconus.

LENS –BASED PROCEDURES: People with particularly high refractive errors are not fit to undergo corneal laser refractive procedures like LASIK or Epi-LASIK. Such people have the option of surgical correction of their refractive


Over the years, laser eye treatment or LASIK has made an enormous difference to people with near-sighted, far-sight and astigmatic vision problems. A giant leap in laser refractive surgery now aims at improving upon patient's vision both quantitatively and qualitatively

error with lens based procedures.

Phakic Intraocular Lens: Until recently, refractive surgery from some people with high degrees of myopia or hyperopia was not an option. The amount of correction needed could not be achieved safely through surgical procedures involving reshaping the cornea. However, cataract surgery patients have been treated successfully with plastic lenses (called intraocular lenses or IOLS) implanted in the eye for many years. Using a similar approach, a different type of IOL known as Phakic IOL is being used to treat patients who do not have cataracts but need correction for refractive errors that exceeds the safe range of excimer laser procedures such as LASIK.

Refractive Lens Exchange: It is another good procedure for people who are not good candidates for laser vision correction. During the procedure the surgeon removes the natural, crystalline lens in the eye and replaces it with an artificial intraocular lens.

People undergoing refractive lens exchange need to be aware that they will lose the ability to do close work and will require reading glasses. However, with recent developments in intraocular designs, the lens exchange can be done with accommodative or multifocal lenses, this would provide the range of vision required for spectacle free vision.

With the advent of these new procedures, much better results are being achieved. The surgeon has the entire bouquet of procedures to offer and the ability to mix and match the procedures to suit your specific and unique requirements. 

(The author is Chairman and Medical Director, Centre for Sight, New Delhi)

Don't Exhaust Yourself

There are several reasons for Chronic Fatigue Syndrome, and managing it can be as complex as the illness itself

BY DR MANISHA YADAV



DR MANISHA YADAV

If you feel tired for a long period of time and if you find that nothing can boost your energy levels then you might be suffering from Chronic Fatigue Syndrome (CFS). The fatigue caused by CFS may worsen with physical or mental stress. There are many symptoms like tiredness lasting for at least six months or more which is not relieved by rest and also not caused due to some other medical condition, mood problems, dizziness, loss of memory, difficulty in concentration, myalgia (muscle pain), arthralgia (joint pain) with no signs of inflammation, headache, recurrent sore throat and tenderness of cervical and axillary lymph nodes.

CFS is a disabling illness of unknown cause and origin. CFS is often thought of as a problem in adults, but it also

affects children and adolescents. Between 0.2% and 2.3% of children or adolescents suffer from CFS. It is more prevalent in adolescents than in younger children. In children, particularly in adolescents, CFS is more likely to develop after an acute flu-like or mononucleosis-like illness, but gradual onset of illness may occur. Currently, the diagnosis is made on the basis of ruling out other conditions that could explain most of CFS symptoms.

Options for treating and managing CFS may include treating the most disruptive symptoms such as fatigue due to sleep problems, pain, and lightheadedness. CFS symptoms can vary over time and may require periodic re-evaluation. Primary care providers can develop effective treatment plans based on their experience in treating other complex illnesses. Management may require input from a variety of healthcare professionals (e.g. medical doctors, rehabilitation specialists, mental health professionals, and physical or exercise therapists) when available.

People normally feel that fatigue is caused to excessive physical stress, exercise, lack of proper sleep and nutrition. But, is another angle to this that most people are unaware of. Many serious illnesses may make you tired but, there are few minor health conditions that are found to leave you washed out. Iron deficiency anemia is one of the most common medical

reasons to make you feel tired. Your muscles will feel heavy or you will get tired easily especially if you are pregnant. Depressed people usually feel exhausted due to sadness, loneliness and loss of appetite. Talk to your doctor to feel better and get rid of this problem quickly.

Underactive or over-active thyroid gland is found to make you feel tired. Common in women, this condition usually happens once you get older.

Sleep apnea is clinical condition results in snoring and difficulty in breathing causing low blood oxygen levels in the body. This makes you to wake up often in the night making you feel exhausted the next day.

If you feel tired while performing normal day-to-day activities or are experiencing trouble with your daily exercise routine, then this is usually because of an undiagnosed heart trouble.

Few people develop Chronic Fatigue





Syndrome after a viral infection. So, it is also known as Post Viral Fatigue Syndrome (PVFS). People suffering from CFS have a slightly impaired immune system, but it is not clear whether this impairment is sufficient to actually cause this disorder. The significance of hormonal abnormalities is still unknown but the evidences point to certain abnormalities in the hypothalamic–pituitary–adrenal axis in the chronic fatigue syndrome. As some patients produce low level of cortisol as compared to a healthy individual, their cortisol levels are still within the acceptable range of what is considered normal. Therefore, cortisol level is not used as a way to diagnose CFS. Neurally mediated hypotension (abnormally low levels of blood pressure) and nutritional deficiency are also cause of chronic fatigue syndrome

Treatment strategies are usually symptomatic, that is targeted to relieve the symptoms associated with it, so

Many CFS patients, including children and adolescents, experience sleep problems. Common sleep complaints include difficulty falling or staying asleep, daytime sleepiness, frequent awakening, and intense and vivid dreaming

managing the disruptive symptoms first which are fatigue, sleep disorders, pain, depression, anxiety, dizziness, mood disorder, loss of concentration and infections. Maintaining a healthy is adding up of flax seed oil, green vegetables, avoiding coffee and junk and limiting the intake of dairy products are among few changes in the dietary habit which will help to combat CFS. Improving the quality of life means

cognitive behavior therapy is a moderately effective psychological therapy when used to treat CFS. It is often used with other therapies to manage activity levels, stress and symptoms.

To treat chronic fatigue syndrome, a management programme should address major challenges, varying and unpredictable symptoms, a decrease in stamina that interferes with activities of daily life, memory and concentration problems that adversely affect school performance changes in relationships with family members and friends

So doctors, family members, and patients need to communicate with one another about which symptoms are most disruptive or disabling so that they can tailor the management plan accordingly. Treatment can be directed toward the most problematic symptoms as agreed upon by the patient, family members and doctors.

When family members and children



communicate with doctors about the child's lifestyle and behaviors, they can make important distinctions. For instance, whether the child's lack of usual energy is because of fatigue or the result of normal changes in sleep cycles that may begin at puberty. Such distinctions are important because they affect the management plan for the child.

Many CFS patients, including children and adolescents, experience sleep problems. Common sleep complaints include difficulty falling or staying asleep, daytime sleepiness, frequent awakening, and intense and vivid dreaming. Adult patients report that they feel less refreshed and restored after sleep than they felt before they became ill.

In young children, this problem is detected by a lack of their usual energy.


Sleep problems in adolescents with CFS may be challenging to detect, as sleep cycles may begin to change with the onset of puberty, such as staying up

It is important to find a balance between inactivity and excessive activity, which can aggravate CFS symptoms. This often requires a new way of thinking about daily activities. For example, daily chores and school activities may need to be broken down into shorter time frames

later and sleeping in. The demands of school classes, homework, after-school jobs, and social activities also affect sleep patterns.

Doctors can help people with CFS adopt good sleep habits. Patients should be advised to practice standard sleep hygiene techniques.

CFS patients frequently report experiencing post-exertional malaise or post-exertional relapse, which is the exacerbation of symptoms following physical or mental exertion. This relapse typically lasts 12-48 hours after activity and could even last days, weeks, or months. For patients with CFS, managing activity levels is a key part of managing the illness. It is important to find a balance between inactivity and excessive activity, which can aggravate CFS symptoms. This often requires a new way of thinking about daily activities. For example, daily chores and school activities may need to be broken down into shorter time frames. A symptom diary can be very helpful for managing CFS. Keeping daily track of how patients feel and what patients do, may help to find patterns or identify triggers when symptoms start to affect daily activities.

Parents may work with teachers and administrators to redefine expectations of activity and performance for children with CFS. It is true that exercise can benefit children with certain chronic illnesses. While the overall goal is to help CFS patients tolerate exercise again, children with CFS should avoid activity that results in aggravated CFS symptoms. Activity programs aimed at vigorously increasing aerobic capacity are not recommended. 

(The author is associated with Sir Gangaram Hospital, New Delhi)

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Drinking to Death

Recent studies have found that the trend of heavy drinking is on the rise in India, increasing people's risk of developing several diseases including liver cirrhosis and cancer

BY AMRESH KUMAR TIWARY

The findings of some recent reports have set alarm bells ringing within the medical fraternity and health activists who are demanding a national policy to curb alcohol use, which is associated with over 200 ailments of the liver, heart, pancreas, brain, and even causing cancer.

A report by WHO (The World Health Organization) has pointed out how alcoholism cuts through classes and afflicts a poor man and an affluent woman alike. The trend of heavy drinking witnessed among the young of all countries has experts worried.

The WHO study reports alcohol consumption in India has risen 55 percent over a period of 20 years. More worryingly, the young are getting initiated to alcohol much earlier, while more women are indulging in hazardous and binge drinking. It can be dangerous and have long-term effects such as habit formation or other chronic conditions. Binge drinking among the youth has also been associated with increased possibilities of road accidents and disabilities in the report.

Alcohol consumption also contributes to about 10 percent of the disease burden due to tuberculosis, epilepsy, hemorrhagic stroke and hypertensive heart disease in the world, the report added.

According to the report which said about 30 percent of Indians consume alcohol, out of which 4-13 percent is daily consumers and up to 50 percent of these fall under the category of hazardous drinking.

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According to Dr Monika Garg, Chief of Gastroenterology & Hepatology, Action Institute of Liver and Digestive Diseases, Sri Balaji Action Hospital, New Delhi, alcohol is causally related to cancers of the mouth, oropharynx, liver, oesophagus and breast. It is appalling that such a toxic and carcinogenic compound is being brazenly advertised and consumed by an ever-increasing number of youngsters without any warning.

The rapid rise in alcohol consumption is also not without any economic ramifications. A developing nation, for instance, loses around 1% of its annual output



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due to lost productivity of drunken workers.

“The alcohol concentration may vary or the quantities may not be same. More importantly, we have noticed that even with moderate drinking one can develop liver disease over a period of time. The fact that alcohol consumption for youngsters or women is no longer a taboo in our society has brought about the big shift in trend,” Dr Monika Garg, said.

The percentage of under-15 boys, who haven’t had alcohol, went down from 44 percent to 30 percent, while for girls it decreased from 50 percent

to 31 percent in the 2000s. The OECD researchers evaluated that drinkers from member states were downing an equivalent of over nine litres of pure alcohol per year, which further rose by a few units if home brewed and illegal stocks were taken into account. All of this amounts to drinking over 100 bottles of wine, or 200 litres of beer, in a year the report stated. Interestingly, Indians featured much lower here as average consumption of pure alcohol hovered around 2.5-3 litres annually. The findings have set alarm bells ringing within the medical fraternity and health activists who are demanding a national policy to curb alcohol use, which is associated with over 200 ailments of the liver, heart, pancreas, brain, and even causing cancer.

Says Dr. G.S.Lamba, Chief of Gastroenterology & Hepatology, Action Institute of Liver and Digestive Diseases, “Alcohol practices vary from country to country and depend on culture and practices. It is crucial to understand that the previously followed British Society of Gastroenterology guidelines, which suggested consuming three units a day for men and two units for women as relatively safe, may no longer be the thumb-rule.”

A silver lining, though, as stated in the report, is that if users can cut down even one unit of alcohol per week, it can bring about a great difference to the disease graph. The OECD report said heavy drinking was alarmingly on the rise among youth and women in many countries. An increasing proportion of children experience alcohol and drunkenness at early ages. Girls have caught up with boys in the past 10 years.

The biggest toddy and country liquor-drinking states are Dadra and Nagar Haveli, Arunachal Pradesh and Andaman and Nicobar Islands. Small states and Union Territories are most likely to have sampling errors, so let’s look at the bigger states. Andhra Pradesh tops the bigger states, followed by Assam, Jharkhand and

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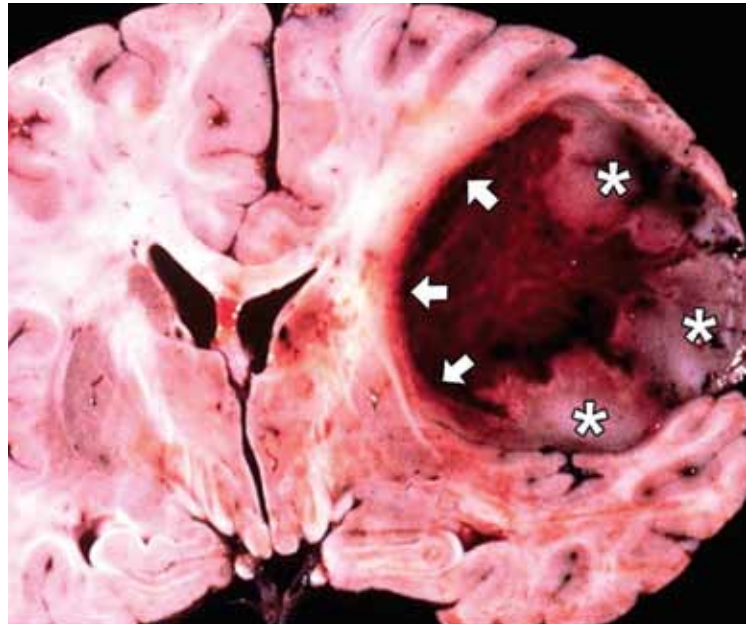
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As Kerala takes the first steps towards prohibition, here’s a question: is Kerala really India’s biggest drinker? The National Sample Survey (NSS) has some well-documented drawbacks, and most likely underestimates consumption at the higher end of the income spectrum. But it’s still the most geographically and economically representative data set in the country.

The NSSO’s 2011-12 consumption data splits per capita weekly consumption of alcohol into four categories – toddy, country liquor, beer and foreign/ refined liquor or wine. The average rural Indian drinks 220 ml across types of alcohol in a week or 11.4 litres in a year. The average urban Indian, meanwhile, drinks 96 ml per week or 5 litres in a year, country liquor being most popular.

Income starkly affects alcohol consumption in rural areas, toddy and country liquor consumption rises with class and falls only in the richest 5 percent, while beer and refined liquor rises with class. For urban areas, country liquor consumption falls as people get richer, while beer and refined liquor consumption rises exponentially.

An average Indian male drinker over 15-years-old consumes 33 litres of alcohol a year while the average for women is 11 litres, according to a study by the World Health Organization.



The report found that 93 percent Indians drink hard liquor - whisky or vodka - while only 7 percent drink beer. India's wine drinking population is very low with only 1 percent drinking it. The data was compiled taking into account individuals over the age of 15 and above, who consumed alcohol.

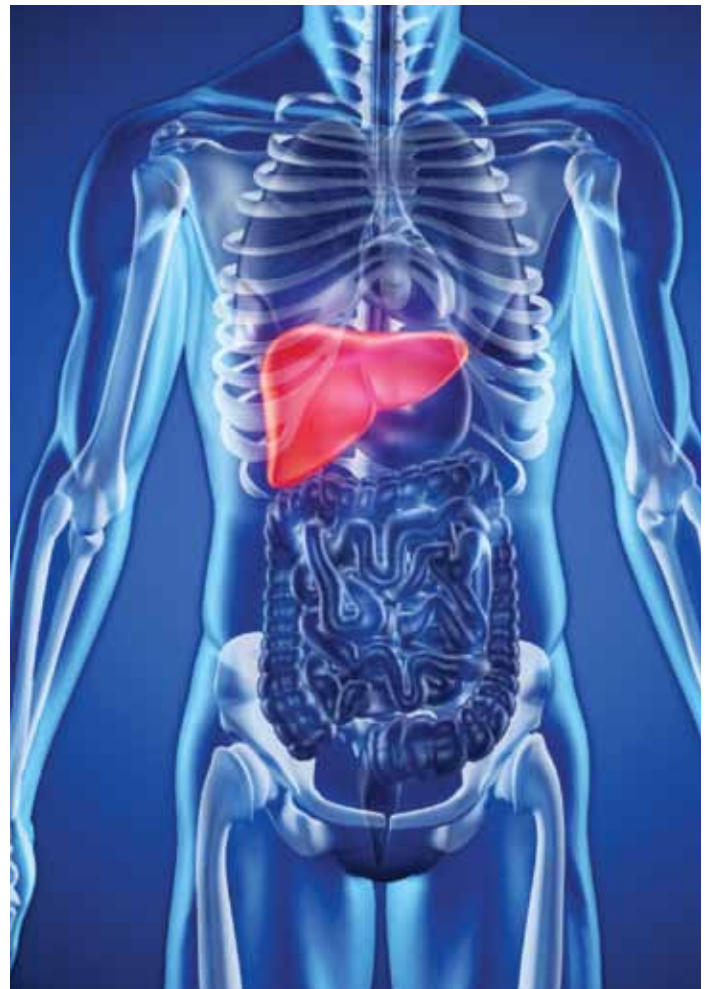
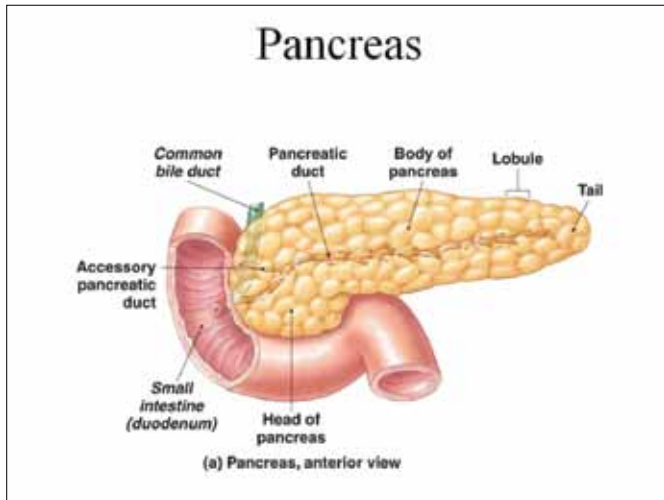
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The per capita consumption of alcohol in the country increased from 1.6 liters from the period of 2003-2005, to 2.2 liters during the period of 2010-2012. Kerala led the states in terms of alcohol consumption. It was also revealed that over 11% of the population in India indulged in heavy or binge-drinking. The global figure stood at 16%.

The report stated that 38.3 percent of the global population consumed Dr Yoginder Gupta, Senior Consultant Internal Medicines, Sehgal Neo Hospital, New Delhi, says, "Alcohol drinking from time immemorial has been considered as vice. With change in time it has received kind of cultural acceptance with occasional and

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On an average, an individual over 15 years of age consumed 6.2 liters of alcohol annually. Americans consumed 8.5 to 9.9 liters of alcohol per annum while the Canadians consumed a whopping 12.5 liters per annum. The report also states that in 2012, about 3.3 million deaths, or 5.9% of all global deaths, were attributable to alcohol consumption.

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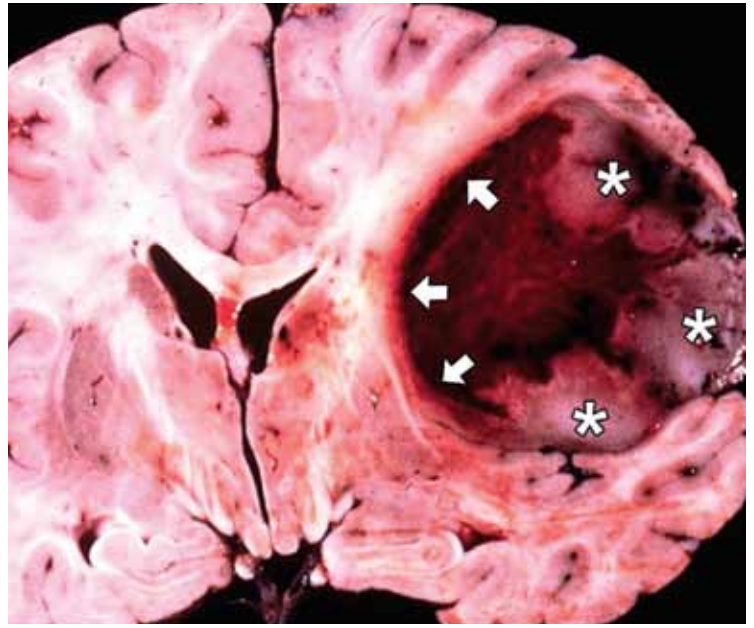
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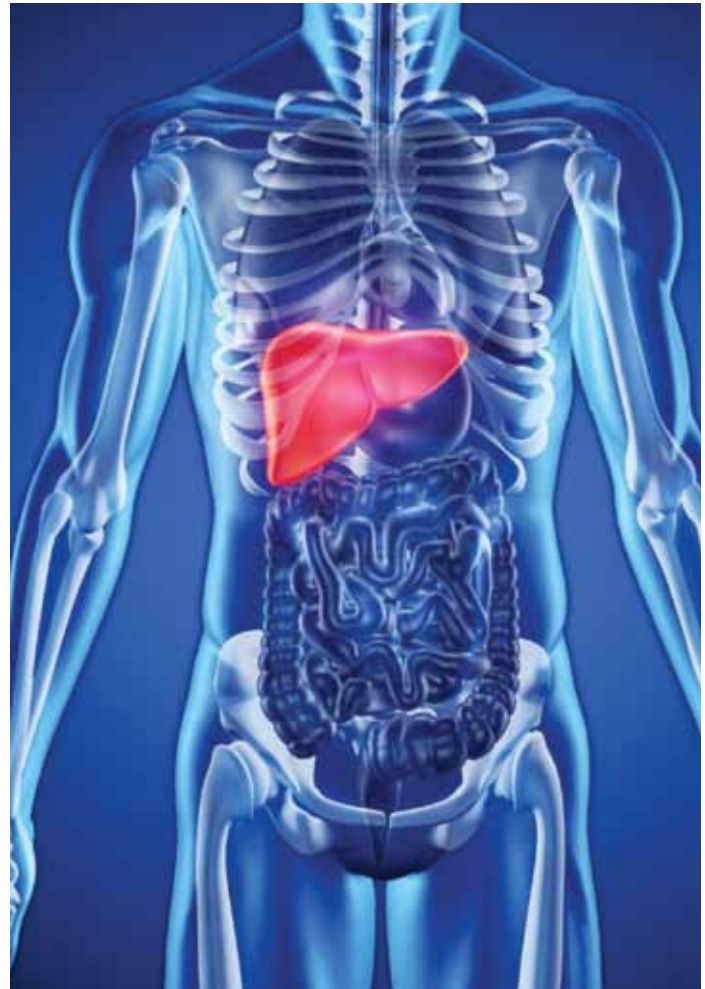
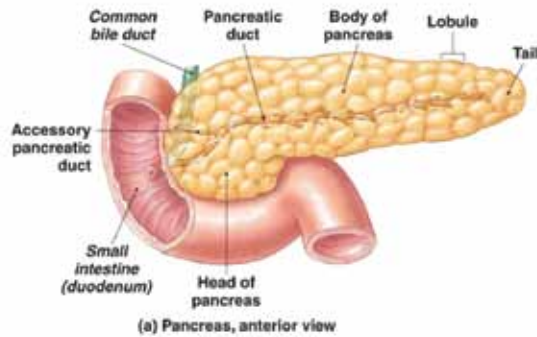
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Killer Addiction

Despite its harmful effects on almost every aspect of life, alcohol consumption has remained a relatively low priority in public health policy in India. To combat alcohol abuse, what's of utmost importance is political will, leading to the formulation of public policies and interventions to prevent and reduce alcohol-related harm

**BY DR SUNEELA GARG/
DR CHARU KOHLI**

Alcohol consumption is increasingly getting worldwide attention due to its harmful effects. It is associated with a number of diseases and health-related conditions. Alcohol is classified as psychoactive substance which produces dependence. It has not only important implications on health but also social and economic aspect as well. There are a number of factors which determine the alcohol consumption in a society.

Social factors like cultural practices, level of development, alcohol production, distribution and marketing strategies are important. In India, alcohol consumption on certain religious occasions and social gathering is acceptable. Similarly, consumption of alcoholic beverages is prevalent in many tribal and village

societies around the world. Individual factors also play a role in the pattern of alcohol consumption. Age group, gender, socio economic factors, education, certain occupation, familial tendency, peer pressure etc are individual determinants of alcohol intake. Early age of initiation of alcohol intake is associated with higher rates of diseases due to abuse, accidents and injuries.

Alcohol consumption, determinants of its use in different populations, consequences on health and different strategies to reduce the health and social burden caused by the harmful use of alcohol are important issues for public health in India. Harmful use of alcohol is defined by the World Health Organization (WHO) as "drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as the patterns of drinking that are associated with increased risk of adverse health outcomes". This harmful use of alcohol leads to deaths of millions of people worldwide every year making it an important issue for public health policy.

Burden

As per WHO, worldwide 3.3 million deaths every year result from harmful use of alcohol, which is 5.9 % of all deaths. Alcohol consumption causes death and disability relatively early in life. In the age group of 20-39 years, approximately





Dr Charu Kohli



25% of the total deaths are alcohol-attributable. A majority of this is due to injuries. Harmful use of alcohol kills or disables people at a relatively young age which puts a huge burden on society. Indian figures by WHO shows that per capita alcohol consumption in the age group of 15 years and above is about 4.3 liters. Most common harmful effects of alcohol consumption in India are liver cirrhosis and road traffic accidents. Prevalence of alcohol use disorders is 2.2% in India.

Harmful effects

The harmful use of alcohol is a causal factor in more than 200 diseases and injuries. There is a causal relationship between harmful use of alcohol and mental and behavioural disorders. It is an independent risk factor for non-communicable conditions as well as injuries. Recent studies have reported a role of alcohol in infectious diseases like tuberculosis and HIV/AIDS too. Beyond health consequences, the harmful use of alcohol brings significant social and economic losses to individuals and society at large. The harmful effects of alcohol are dependent on amount, type and frequency of usage of alcohol.

- Mental disorders: Alcohol consumption leads to neuropsychiatric conditions called alcohol use disorders. Epilepsy, seizure disorder, depression and

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anxiety are directly attributed to alcohol consumption.

- Gastrointestinal diseases: Liver cirrhosis, pancreatic diseases are some examples.
- Cancers: One of the most serious effects of alcohol is cancer. Alcohol is causative factor for cancer of the mouth, pharynx, laryngeal cancer, oesophageal cancer, colon and rectum cancer, stomach cancer, kidney and urinary bladder cancers, liver cancer and female breast cancer.
- Injuries and accidents: Alcohol consumption is directly associated with road traffic accidents, gang violence and criminal activities. These may lead to severe injuries leading to disabilities and deaths.
- Cardio vascular diseases: Alcohol

consumption has negative consequences on hypertension, atherosclerosis, atrial fibrillation and stroke. Heavy drinking is risk factor for heart diseases, stroke and diabetes.

- Maternal and foetal mortality: Alcohol, if consumed by female during pregnancy, has detrimental effects on the baby. It leads to congenital deformities in foetus.
- Infectious diseases: Alcohol directly weakens our immune system. Thereby making human body prone to a number of infections. This is especially relevant in pneumonia and tuberculosis.
- Reproductive health outcomes: Reproductive problems in females like reduced fertility. In males, it is associated with reduced sperm count and erectile dysfunction thereby causing fertility problems.
- Socio economic consequences: Alcohol consumption leads to inefficiency in work and in fulfilling family and social relations. It is associated with loss of job, poverty, domestic violence, damage to the one's image in society, loss of productivity, absenteeism and earning potential.

Prevention and control measures

The market forces which are promoting alcohol should be brought under



legislative control. Regulating the marketing of alcohol is essential since it has important impact on younger population. Restricting the availability of alcohol can be effective. Legislations should be made and strictly enforced. Taxation policies can have huge impact on alcohol demand and supply system. Raising public awareness about the harmful effects of alcohol is essential. Innovative strategies should be used including mass media campaigns for the same. More and more counselling centres and rehabilitation centres should be opened for those in need all over the country. Those who recover should be integrated within the society without stigma and discrimination. All health care workers, social workers should be trained in counselling alcohol users.

The WHO has launched “Global monitoring framework for the prevention and control of non-communicable diseases”. India being one of the signatory of this is committed to take measures for reduction of harmful effects of alcohol intake. In India, there


is lack of a uniform law to cover alcohol production and sale across the country.

Certain states like Gujarat have framed legislations at the state level to curb the menace. The Punjab Excise Act, which also extends to Haryana, prohibits establishments from employing women in any part of such premises in which liquor is consumed by the public. Drunk driving is a punishable offence. Legal limits are set for alcohol concentration for breath analyzer test.

There are national prohibited days which are specific days when the sale of

The market forces which are promoting alcohol should be brought under legislative control. Regulating the marketing of alcohol is essential since it has important impact on younger population

alcohol is not permitted. The government of India has established detoxification centres and counseling centers for people who need special care and rehabilitation. Although steps have been taken but they are not sufficient enough. Despite its harmful effects on almost every aspect of life, alcohol consumption has remained a relatively low priority in public health policy in India.

To combat the problem of alcohol abuse, political will is of utmost importance. Public policies and interventions to prevent and reduce alcohol-related harm should be formulated. All stakeholders should be involved while framing the public polices and frameworks for preventing alcohol abuse . Specific care should be taken to prevent initiation of alcohol intake in early age groups like youth. Those who are affected should have access to services for care and rehabilitation. 

(The authors are senior experts in the Department of Community Medicines, Maulana Azad Medical Institute, New Delhi)

“Making Healthcare Accessible to all is the Driving Force behind the DLF Foundation”



CSR-

Health services have received major boost from the private sector in India as part of its Corporate Social Responsibility (CSR) activities. DLF Foundation CEO **Lt. Gen. Rajender Singh, PVSM (Retd)** is spearheading the realty major’s initiatives to contribute to the improvement of health care system in the country. Before joining the DLF

Foundation in 2009, Lt Gen Rajender Singh was heading the largest wing of the Indian Army as the Director General of Infantry. During his extremely distinguished career in the Army spanning 40 years, he was also appointed as the Force Commander of the United Nations Peace (one of the only 14 Indians to be given this honour by the UN ever since Independence).

He spoke to **Double Helical** on his

company’s efforts to improve the quality and accessibility of public healthcare facilities. Excerpts ...

How has the industry taken up the cause of public health?

CSR, as a mandatory part of a company’s activities, has managed to bring the public concern to the fore. In a country as vast as India, there is a dearth of qualified medical functionaries

and quality infrastructure coupled with people's non-access to medical facilities. Despite the government's schemes, plans and efforts to educate the common population, we have fallen short on people's accessibility to basic health services and knowledge about simple diseases related to lifestyle, hygiene, food, etc. This has not only resulted in manpower inefficiency due to poor health but has also caused huge economic loss to the country because of it. A healthy input from private players having deeper investment in collaboration with local bodies, state government and even independent ventures has not only bolstered confidence among the employees, it has elevated a company's inner reputation.

This is a quid pro quo situation, where the combination of a healthy mind, a healthy body and healthy temperament improves the inner and outer workings of an organisation and ensures a healthy participation in society's needs. Our survey shows that in our existing clusters in Gurgaon and Mohali, the economic loss due to inability to attend work was as high as 7.5 crore per annum. Due to our services we have brought it down to nearly 2 crore approximately; not to mention the savings from the amount spent by poor labours to avail basic health facilities that are provided by DLF Foundation for free.

What CSR activities has DLF Foundation undertaken to improve healthcare in India?

DLF Foundation is committed to the cause of 'Health for All'. A healthy body is essential for a healthy mind and to ensure optimum utilisation of human skill. The population living in rural areas has always been at a disadvantage, due to widespread illiteracy, loopholes in implementation of schemes and the large discrepancy in essential medical assistance and that which is available. Our aim is to bridge these gaps and tackle the problem of ignorance, because prevention is always better than cure. Our programmes are



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focused on addressing issues of personal healthcare, vaccination, hygiene, and illness prevention. There is a pressing need for gender sensitisation to remove the stigma from commonplace diseases, related to women's health, maternity issues, reproductive health etc. We have conducted specialised health camps to provide organised health solutions for eye care, TB, malaria, anaemia, dengue, diarrhoea, worm infestation, skin infections and STD/HIV diseases. It starts with baby steps, and right now we are focusing our energies on

identifying target groups and bringing them within the ambit of our layered structure which will spread throughout the country.

Why did DLF Foundation choose to take up cancer awareness as part of its CSR initiatives?

Before curing a disease, it is essential to understand the disease and study its nature. This is simply called awareness. In respect of that, the DLF Foundation organised a Cancer Awareness and Screening Camp at DLF Cyber City, Gurgaon with the aim to educate working women about the adverse effects of unhealthy life style choices. Mostly it included an educative effort to distribute information about the terminal and invasive nature of breast cancer, which has been on the rise in the past few years. Cancer has become the biggest killer of the 21st century. The truth, however as cancer patients and survivors will tell you, is it can be fought and defeated. Early diagnosis and some effort on our parts goes a long way in preventing early deaths. The camp was a success mainly because it was organised in a place that has

witnessed a boom in employee increases, especially women. Women being homemakers have a tendency to ignore vital signs of health problems, which is a habit we must try to break at the earliest. The programme was executed with the expertise of World Health Trust. The DLF Foundation organised several such camps as part of its broad initiative.

Did you also focus upon other types of cancer?

Apart from breast cancer, cervical cancer has also been on the increase accounting for deaths worldwide, The DLF Foundation conducted four awareness camps in rural areas of Sakapur, Nawada, Fatehpur, Hayatpur and Shikohpur village of Gurgaon. The aim is to educate women and adolescent girls as it would lead to a domino effect, with forwarding of the information even further to their peers and families. The objective in its entirety can be seen to implore rural households to seek assistance when required. In this regard, more than 5000 pamphlets were distributed in the vernacular language with diagrams and pictorial representation about the A to Z of cancer. Along with the information about nearest health centres, public clinics, also self-examination techniques were taught which was positively received by the people, showing their eagerness to learn.

Can the Cancer Awareness Programme be called a success and will there be a follow-up by the DLF Foundation?

The programme is an ongoing endeavour about a very real and persistent problem. Rather than a question of success or failure our focus is to improve the healthcare facilities. Most of us are working under an illusion that cancer happens to other people, it cannot happen to us. Our callous nature is our biggest enemy. The situation isn't so grave though. People's mindset is changing. The nature of development is becoming holistic. From households to schools to seminars and health drives



The DLF Foundation organised a Cancer Awareness and Screening Camp at DLF Cyber City, Gurgaon with the aim to educate working women about the adverse effects of unhealthy lifestyle choices



in villages, advertisements, promotional events and videos issued in public interest, cancer is being discussed everywhere. It is no longer the mysterious disease lurking in the shadows, evading explanation. DLF Foundation has taken up the issue very seriously and invested in it for the long haul. We started off with just one camp in Gurgaon but realising the gravity of the situation expanded our vision and today our objectives have graduated to implementing an outreach centre in the DLF-PHC to assess general health and well-being of rural population of Gurgaon. This will enable the people to

monitor themselves while we get updated on the progress. So, it is not a shot in the dark but a well-devised method with long term and short term goals.

Can you elaborate upon the other aspects of the health programmes organised under DLF's banner?

Here at DLF Foundation, we acknowledge the divide between the basic medical assistance needed and that which is actually available. Moreover the rising costs of private sector makes it almost impossible for poor people to access medical facilities.



Our programmes also includes establishing health centres within communities in remote areas, with qualified medical staff to provide emergency, specialist treatments, free diagnostics and medicines to a large rural community. These centres are operated and maintained by DLF Foundation in villages of Gurgaon and Haryana and are visited by villagers from neighbouring villages indicating the need of such centres. Mobile Healthcare Vans is another novel idea that DLF Foundation is set to explore soon. The concept is already in place and it won't be long before it's

functional. In any trauma situation the first few minutes and hours are crucial. Basic, timely medical intervention goes a long way in preventing a catastrophe.

On a more personal note, how has being an Army man helped you transition into the corporate world? Was it challenging?

It goes without saying that being in the Army ingrains core qualities of punctuality, dedication, discipline, order of command and the will to deliver. Serving in the Army is obviously very different from running a corporation

like DLF Foundation. Even though responsibilities are wide and varied, the values required to do justice to any position or job are the same – leadership, motivation, innovation, and so and so forth. From its very inception, DLF has successively built upon its hard earned reputation through constant, durable hard work, impressing upon the need to think further, think broader. While we function in the present, our thought process is a healthy feed of present and future challenges, and to anticipate future trends before anyone else. This is a very similar to my days in the Army when you have to be on your toes and be ready on the go at a moment's notice. The challenge is always the same: to be able to give your 100% to the job at hand and realise a project to its potential end. Whether it was Army boots and military overalls, or the black suits and ties, my dedication has never faltered, not to my country and the DLF Foundation. 🇮🇳

Summer and your Skin

The summer season brings with it a range of ailments and allergies. Taking preventative measures is the key to a healthy, glowing skin during this period

BY DR NIPUN JAIN



To avoid sunburn and other skin-related problems during the summer season, the sun safety is important for all. The acute sun related skin problems like rashes can be caused by things such as sunlight, insects, sweating and overheating during the summer months - especially if the affected people have allergies and/or pre-existing skin conditions. Every summer thousands of people die due to dehydration and heat strokes though the modes to avoid them are quite manageable.

With latest research, it has been found that summer can be a particularly bad time for skin allergies such as eczema and hives, as well as reactions to poison ivy, oak and sumac. The summer, high rainfall, humidity and temperatures combined with increased levels of carbon dioxide in the air result in an exceedingly potent growth of poisonous ivy-related plants. Though most people look forward to summer for enjoying the air, sunshine and warm weather, but little do they realise that this season also brings with it a range of summer ailments and allergies.

The summer season gives rise to many serious diseases. Exposure to ultraviolet (UV) radiations is the main cause of skin cancer. These UV rays can also cause sunburn, tanning, premature skin aging and a decrease in immune system response. People who spend considerable time in the sun or have fair skin/hair or are over 50 years of age, are more at risk of getting skin cancer.

Heat stroke is by far the most serious and common summer hazard. Often known as sun stroke or hyperpyrexia, it is manifested by extremely high body temperatures (generally greater than 104 degree F), and short and rapid breathing, fainting, dry skin etc. Heat stroke might lead to serious complications and the victim may die, if not treated in time. Overexposure to ultraviolet light can cause cataracts, retinal damage and other eye problems. Eye infections like - styes, bacterial and

viral conjunctivitis are also seen with increased frequency in this season.

Bright sunshine and the heat can trigger the throbbing headache. In a severe case, it may also result in dizziness, nausea, muscle fatigue and vomiting. To avoid such cases remain hydrated and if symptoms occur, always take an over-the-counter medicine to be on a safer side.

Frequency of haemorrhage from nose commonly found in young children also increases in summer season. The flow of blood normally stops when the blood clots, which may be encouraged by direct pressure applied by pinching the soft fleshy part of the nose. Pressure

The summer season gives rise to many serious diseases. Exposure to ultraviolet (UV) radiations is the main cause of skin cancer. These UV rays can also cause sunburn, tanning, premature skin aging and a decrease in immune system response



Dr Nipun Jain

should be firm and be applied for at least 10 minutes. Dehydration can happen quickly in the summer heat due to excessive sweating, especially in physically active individuals. To prevent dehydration, drink additional water in hot or humid weather. Summer is also a month of insects like mosquitoes, bees and ants. Their bites - apart from being itchy and annoying - can be serious if they bring diseases such as malaria, dengue, chikungunya etc. All preventive measures should be used to avoid these insect bites.

Beating the Heat

- Wear light, loose-fitting soft clothes that don't trap heat and moisture. Natural fabrics such as cotton are the best.
- Drinking plenty of water keeps body hydrated in summers and helps prevent dehydration. Don't wait to drink until you are thirsty, at the time of thirst, your body already indicates that it ran out of water.
- Fruits such as water melons, cucumber and coconut water can help to prevent dehydration during summer. Take light, less fatty and nutritious food; avoid heavy and spicy food.
- Keep your skin hydrated and moisturised; use sunscreens of good quality. Avoid too much sun exposure.
- Try not to go out into the sun during mid noon. If it is inevitable, don't forget your umbrella and UV filter sunglasses. Stay Cool. Wear light, cotten clothing to help you stay cooler.
- Have a short rest or nap in the afternoons. This will not only refresh you but also prevent your undue exertions in heat of the sun.

Use natural face packs

Lemon is one of the best citrus fruits that have rich medicinal and cosmetic benefits. Lemon is a natural bleaching agent and an antioxidant which combats the free radicals that accumulate under skin surfaces. It is rich in vitamin C and the intake of lemon juice would fetch you a glowing skin. Aloe Vera on the other side is short stemmed succulent plant that produces six antiseptics. These natural antiseptics have the super power to kill any kind of bacteria, fungi and viruses that settle on skin due to pollution, dust and other reasons.

This can be used as a bleaching agent to protect your skin. All you need to do is juice a lemon and besides that also mash the Aloe Vera leaves. Mix them properly until an aromatic paste is formed. Apply this onto the tanned area of the skin and allow it to dry. You need to apply this paste twice or thrice a day to cleanse and prevent your skin from getting tanned from time-to-time.

Curd and Gram Flour Face Pack: Curd is basically a dairy product which plays a major role in growth of bones. It is very rich in calcium, magnesium and other nutrients that help in strengthening your bones. Besides this, the unknown fact is that it can be used as a great exfoliating agent that removes dead skin cells. It helps in cooling the skin that is continuously exposed to sunlight for hours. Gram flour is widely used in whitening your skin and it really helps in giving an instant glow to your skin.

Take curd and gram flour in equal quantities and mix well by adding lemon juice in proportions. Apply this paste to face, neck and other body parts such as hands and feet. Pat it dry and wash it with warm water. This can be applied twice a week which ultimately results in a soft glowing skin.

Turmeric Powder, Yogurt and Honey Face Pack: Turmeric powder is the basic common ingredient in every kitchen and is best known antiseptic/anti-bacterial agent. It is used in relieving the pain and as a disinfectant that is usually caused due to cuts and burns. Yogurt is a dairy product just as curd and it has a gel like texture. Honey, a sweetening agent can be considered as one of the best natural moisturizing agent that helps skin retain its supple and elastic nature. It is used in various cosmetic preparations and is an antioxidant that helps in healing wounds.

Benefits of Turmeric Powder, Yogurt and Honey Face Pack:

In summer, it is really required to keep your skin moist because the body is much subjected to dehydration. This results in dry skin and it loses its lustre in the process. In order to overcome this, it is better to keep yourself hydrated by drinking lots of water.

Make a thick paste by mixing all the three ingredients well. Apply this pack on the dried skin and leave it for 15-20 minutes. Later, rinse it off with cold water. This pack helps in moisturizing and radiating your skin under the dire circumstances.

Sandal wood and Rosewater Face Pack: Sandal wood has rich benefits especially when it comes in accomplishing a fairer skin. It is used in the treatments of acne and skin aging. Rose water is one of the best beauty products and is used in aroma therapies. It can be used as a cleanser, toner and leaves you with a refreshing feeling.

Benefits of Sandalwood and Rosewater Face Pack: Make a thick paste of sandalwood powder and rosewater and apply it to face. Wait for 20 minutes and allow it to dry. Subsequently, wash it with cold water and always use a soft towel to clean up your washed face. This paste relieves you from sun burns and other suntan effects.



Sun exposure isn't necessarily bad because it is a key source of Vitamin D. As with all good things, however, keep exposure in moderation

The babies are especially susceptible to skin rashes because their skin is new and therefore sensitive.

Caused by a blockage and inflammation of sweat ducts in heat and high humidity, skin rashes occur during the summer months. Heat rash or prickly heat also called miliaria, it is a harmless but very itchy skin rash with small red spots in places where sweat collects, such as the armpits, back, under the breasts, chest, groin, crooks of elbows and knees, and the waist.

Skin can develop rashes with exposure to direct sunlight including people on certain antibiotics, or people exposed to some chemicals, fragrances, dyes, or disinfectants. In some people, exposure to the sun in the spring or early summer can trigger an itchy, red rash on the front of the neck and chest and the arms and thighs called polymorphous light eruption (PMLE). It



usually clears without treatment in a few days; although it can come back.

Sunlight can also trigger a rare condition called lupus (systemic lupus erythematosus or SLE) in susceptible people. Spring and summer are times when there are many substances that can cause allergic skin reactions in the environment – molds, pollens, plant and animal substances. Hives (urticaria) can be triggered by heat or sweat. Eczema (atopic dermatitis) can worsen in the summer, especially with excess sweating. Certain plants and grasses can cause skin rashes.


Many people with chronic skin conditions may find that their symptoms are worse during summer. People with the chronic fungal infections such as tinea, atopic dermatitis (eczema), seborrhoeic dermatitis and skin cancers may need to take special precautions.

Sun exposure, essentially, subjects

you to sun damage – but in the same note, avoiding the outdoors altogether is both impractical and nearly impossible. Thus, taking preventative measures in preparing and caring for it are crucial in keeping your skin in tip-top condition for the ultimate skin-baring season.

Sun exposure isn't necessarily bad because it is a key source of Vitamin D. As with all good things, however, keep exposure in moderation. The ideal maximum is 15 minutes before 10 a.m. or after 2 p.m. Anything over is considered overexposure, and any exposure during midday – when the sun is at its harshest – should be limited (if not altogether avoided). Sun rays at this time of day are 10% UVB and 90% UVA: a combination that can cause melanoma, the deadliest form of skin cancer. On an average, most people are exposed to large amounts of UVA rays throughout

their lifetimes. Though less intense than UVB rays, UVA rays are 30–50 times more prevalent and are present during all hours of daylight – even on the cloudiest of days – making it necessary to incorporate SPF protection into your everyday routine.

Wrinkles and sunspots are largely caused by these rays. Signs associated with ageing - wrinkles, freckles, skin thinning, sunspots (also known as age spots), uneven pigmentation – are the aftermath of sun damage. Ninety-percent of wrinkles are caused by the sun. While intentional overexposure (tanning, sunbathing) is incredibly harmful, two-thirds of all sun damage is, surprisingly, incidental (walking the dog, driving). 

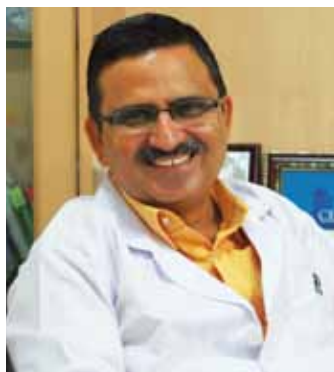
(The author is a Skin Specialist at Sri Balaji Action Medical Institute, New Delhi)

Avert the Painful Lump



Minimal incision laparoscopic surgery is the best advisable option for treating hernia. But every care should be taken to avoid developing this ailment in the first place

BY DR NARIN SEHGAL



Hernia is a common problem these days. Though it might not appear as a very serious ailment initially, but if not treated timely,

the condition may get worse. In most cases, operation is needed as the course of treatment. Although, hernia surgery is very conventional and common, but generally post operation, a patient has

to undertake complete bed rest for some time. In such cases, minimal incision laparoscopic surgery is much more effective.

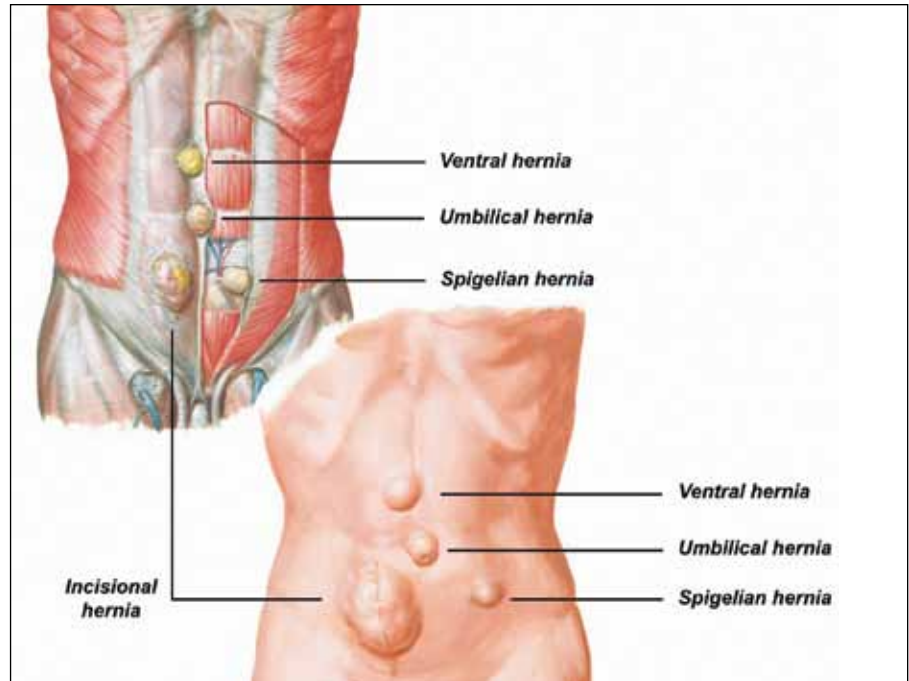
Post-surgery, the patient should stay away from doing strenuous tasks for few weeks or as suggested by the doctor. Along with that one should eat fruits and vegetables which are rich in fiber and water content

Hernia is an ailment in which a certain body organ or tissue slips out of its original position. This generally happens when there is a weak space or an opening between a tissue and a muscle. When pressure falls on the tissues of an organ, it makes them slip out of their position and move towards other organs. Hernia has many types, but the most common is Inguinal Hernia. In this, intestinal tissue slips through the lower abdominal wall in the inguinal canal which feels like a lump. This generally happens more in men as compared to women. Apart from Inguinal hernia, other forms of hernia are Hiatal Hernia, Umbilical Hernia, Incisional Hernia etc.

The primary symptom to identify hernia is the feeling of formation of a new and hard lump in the affected area, followed by nagging pain. In some cases, even before the appearance of lump, pain is felt. Apart from this, one may feel discomfort in the affected area while bending, lifting or coughing; feeling of weakness, heaviness or pressure in the abdomen, constipation etc.

While operating hernia, doctors close the opening between tissues (which causes organs to slip out of place). Though, it is possible to treat hernia via normal operation, but it takes a lot of time (up to 6 weeks) for recovery along with certain discomforts. So, it better to opt for laparoscopic surgery than the convention surgery, as it is more effective, precise and safe procedure. The best part about laparoscopic surgery is that the patient is able to go back home same day after the surgery, and the recovery process takes about 1-2 weeks for after which the patient can get back to one's normal routine.

In this procedure, a laparoscope (thin, lighted scope) is inserted inside the body through a small incision. With its help, organs inside the body and their movements are monitored which helps in the operation. In this surgery, minimal incisions are made through which the whole operation is done. That is the reason why this surgery is also called minimal invasive surgery. Also, the success rate of using this surgery for treating hernia is quite high.



The best part about laparoscopic surgery is that the patient is able to go back home same day after the surgery, and the recovery process takes about 1-2 weeks for after which the patient can get back to one's normal routine

It is very important for the patients to get themselves completely examined by the doctor before undergoing laparoscopic surgery. During the surgery, the patient is given general anesthesia, after which small incision are made through which laparoscope and other surgical equipments are inserted inside the body. Post that, patient's abdomen is made to swell using certain gas in order to have a clear picture of the organ. Then, after identifying the position of hernia the opening is closed using surgical mesh. After the operation is completed, the incisions are stitched and with the help of surgical tape the wounds are sealed.

The benefit of opting for laparoscopic surgery is that since there is no deep cut like that in the conventional open hernia

surgery, the surrounding organs remain unaffected. Also, lesser incisions lead to lesser stitches which results in quick recovery. Another important thing is that this procedure involves less pain and is also much more comfortable.

It is a very safe and effective surgery, which helps getting rid of the problem of developing hernia again and again. Post-surgery, the patient should stay away from doing strenuous tasks for few weeks or as suggested by the doctor. Along with that one should eat fruits and vegetables which are rich in fiber and water content, in order to avoid the problem of constipation. Strenuous exercises should be avoided and in case of any problem, it is advisable to consult the doctor.

Though, operating hernia via laparoscopic surgery is ideal, but it is better that such ailments don't arise at the first place. Always take care of your health, eat good nutritious diet and keep a check on your weight. Also, avoid lifting heavy things. Following such measures, one can minimise the occurrence of hernia. 📌

(The author is Medical Director, Laparoscopic and Bariatric Surgeon at Sehgal Neo Hospital, New Delhi)



Mind you Brain

A comprehensive look at the signs, origin and types of brain tumour and their different modes of treatment

BY DR SONIA LAL GUPTA

If you have persistent signs and symptoms like headaches that gradually become more frequent and severe, unexplained nausea or vomiting, vision problems like blurred vision, double vision or loss of peripheral vision, gradual loss of sensation or movement in an arm or a leg, difficulty with balance, speech difficulties and confusion in everyday matters, consult your doctors because you might have brain tumour.

How quickly a brain tumour grows can vary greatly. The growth rate as well as location of a brain tumour determines how it will affect the function of your nervous system. Brain tumour treatment options depend on the type of brain tumour the patient has, as well as its size and location.

A brain tumour is a mass or growth of abnormal cells in your brain or close to your brain. Brain tumours can begin in the brain (primary brain tumours), or cancer can begin in other parts of the body and spread to the brain (secondary, or metastatic, brain tumours). Many different types of brain tumours exist. Some brain tumours are noncancerous (which are called benign), and some brain tumours are cancerous (which are called malignant).

Signs and Symptoms

The signs and symptoms of a brain tumour vary greatly and depend on the brain tumour's size, location and rate of growth. General signs and symptoms caused by brain tumours may include new onset or change in pattern of headaches, headaches that gradually become more frequent and more severe, unexplained nausea or vomiting, vision problems, such as blurred vision, double vision or loss of peripheral vision, gradual loss of sensation or movement in an arm or a leg, difficulty with balance, speech difficulties, confusion in everyday matters, personality or behaviour

changes, seizures, especially in someone who doesn't have a history of seizures and hearing problems.

Primary brain tumours have many types. Each gets its name from the type of cells involved. Among them, Gliomas begin in the brain or spinal cord and include astrocytomas, ependymoma, glioblastomas, oligoastrocytomas and oligodendrogliomas. Meningiomas - A meningioma is a tumour that arises from the membranes that surround your brain and spinal cord (meninges). Most meningiomas are noncancerous. Acoustic neuromas (schwannomas) - these are benign tumours that develop on the nerves that control balance and

Surgery to remove a brain tumour carries risks such as infection and bleeding. Other risks may depend on the part of the brain where your tumour is located. For instance, surgery on a tumour near nerves that connect to your eyes may carry a risk of vision loss

hearing leading from your inner ear to your brain. Pituitary adenomas - These are mostly benign tumours that develop in the pituitary gland at the base of the brain. These tumours can affect the pituitary hormones with effects throughout the body. Medulloblastomas - These are the most common cancerous brain tumours in children. A medulloblastoma starts in the lower back part of the brain and tends to spread through the spinal fluid. These tumours are less common in adults, but they do occur.

PNETs - Primitive neuroectodermal tumours (PNETs) are rare, cancerous tumours that start in embryonic (foetal)



cells in the brain. They can occur anywhere in the brain. Germ cell tumours - Germ cell tumours may develop during childhood where the testicles or ovaries will form. But sometimes germ cell tumours move to other parts of the body, such as the brain. Craniopharyngiomas - These rare, noncancerous tumours start near the brain's pituitary gland, which secretes hormones that control many body functions. As the craniopharyngioma slowly grows, it can affect the pituitary gland and other structures near the brain.

Cancer that begins elsewhere and spreads to the brain

Secondary (metastatic) brain tumours are tumours that result from cancer that starts elsewhere in the body and then spreads to the brain. Secondary brain tumours most often occur in people who have a history of cancer. But in rare cases, a metastatic brain tumour may be the first sign of cancer that began elsewhere in your body. Secondary brain tumours are far more common than are primary brain tumours. Any cancer can spread to the brain, but the most common types include breast cancer, colon cancer, kidney cancer, lung cancer and melanoma

Risk factors

In most people with primary brain tumours, the cause of the tumour is not clear. But doctors have identified some factors that may increase your risk of

brain tumour. Risk factors include:

Age- The risk of a brain tumour increases as one ages. Brain tumours are most common in older adults. However, a brain tumour can occur at any age. And certain types of brain tumours occur almost exclusively in children.

Exposure to radiation - People who have been exposed to a type of radiation called ionizing radiation have an increased risk of brain tumour. Examples of ionizing radiation include radiation therapy used to treat cancer and radiation exposure caused by atomic bombs.

More common forms of radiation, such as electromagnetic fields from power lines and radiofrequency radiation from cell phones and microwave ovens have not been proved to be linked to brain tumours.

Family history of brain tumours - A small portion of brain tumours occur in people with a family history of brain tumours or a family history of genetic syndromes that increase the risk of brain tumours.

Diagnosis- If it's suspected that the patient can have a brain tumour, the doctor may recommend a number of tests and procedures. Magnetic resonance imaging (MRI) is commonly used to help diagnose brain tumours. In some cases, a dye may be injected through a vein in the arm during the MRI study called MRI brain with contrast. Other imaging tests may include computerised tomography (CT) scan and positron emission tomography (PET).

Tests to find cancer in other parts of your body - If it's suspected that the brain tumour may be a result of cancer that has spread from another area of the body, the doctor may recommend tests and procedures to determine where the cancer originated. One example might be a CT scan of the chest to look for signs of lung cancer.

Collecting and testing a sample of abnormal tissue (biopsy) - A biopsy can be performed as part of an operation to remove the brain tumour, or a biopsy can be performed using a needle. The biopsy sample is then viewed under a



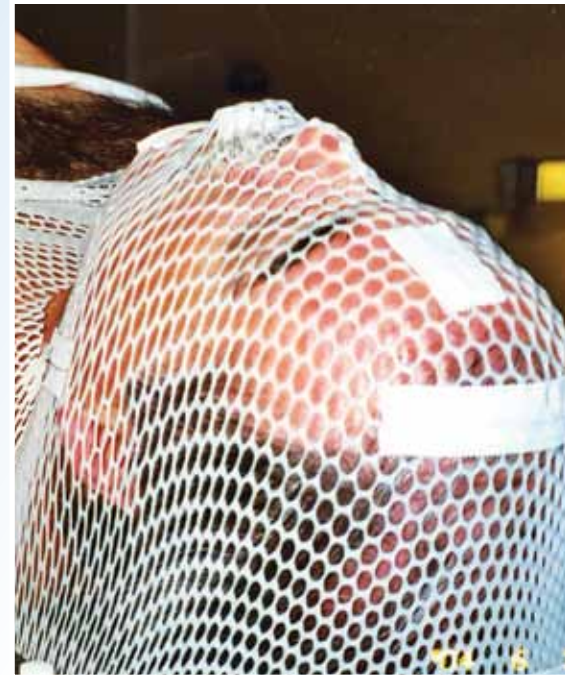
microscope to determine if it is cancerous or benign. This information is critical to establish a diagnosis and prognosis and, most importantly, in guiding treatment.

Treatment

Treatment for a brain tumour depends on the type, size and location of the tumour.

Surgery - If the brain tumour is located in a place that makes it accessible for an operation, the neuro- surgeon will work to remove as much of the brain tumour as possible. In some cases, tumours are small and easy to separate from surrounding brain tissue, which makes complete surgical removal possible. In other cases, tumours can't be separated from surrounding tissue or they're located near sensitive areas in your brain, making surgery risky. In these situations only the part of the tumour is removed which is safe.

Even removing a portion of the brain tumour may help reduce your signs and symptoms. Surgery to remove a brain tumour carries risks such as infection and bleeding. Other risks may depend on the part of the brain where your tumour



is located. For instance, surgery on a tumour near nerves that connect to your eyes may carry a risk of vision loss.

Radiation therapy

Radiation therapy uses high-energy beams, such as X-rays or protons to kill tumour cells. Radiation therapy can come from a machine outside your body



In some cases, tumours are small and easy to separate from surrounding brain tissue, which makes complete surgical removal possible. In other cases, tumours can't be separated from surrounding tissue or they're located near sensitive areas in your brain, making surgery risky

Radio surgery

Stereotactic radio surgery - In Stereotactic radio surgery, multiple beams of radiation is to give a highly focused form of radiation treatment to kill the tumour cells in a very small area. Each beam of radiation isn't particularly powerful, but the point where all the beams meet — at the brain tumour — receives a very large dose of radiation to kill the tumour cells.

There are different types of technology used in radiosurgery to deliver radiation to treat brain tumours, such as a Gamma Knife which is available in cancer institutions. Radio surgery is typically done in one treatment, and in most cases you can go home the same day.

Chemotherapy

Chemotherapy uses drugs to kill tumour cells. Chemotherapy drugs can be taken orally in a pill form or injected into a vein (intravenously). Chemotherapy side effects depend on the type and dose of drugs you receive. Chemotherapy can cause nausea, vomiting and hair loss.

Targeted drug therapy

Targeted drug treatments focus on specific abnormalities present within cancer cells. By blocking these abnormalities, targeted drug treatments can cause.

Rehabilitation after treatment

Since brain tumours can develop in parts of the brain that control motor skills, speech, vision and thinking, rehabilitation may be a necessary part of recovery. Your doctor may refer you to services that can help like Physical therapy can help you regain lost motor skills or muscle strength. Occupational therapy can help you get back to your normal daily activities, including work, after a brain tumour or other illness. Speech therapy with specialists in speech difficulties (speech pathologists) can help if you have difficulty in speaking. 📺

(The author is Consultant Neurologist and Headache and Stroke Specialist) at Metro Centre for Neurosciences, Noida)



(external beam radiation), or, in very rare cases, radiation can be placed inside your body close to your brain tumour (brachytherapy).

External beam radiation can focus just on the area of your brain where the tumour is located, or it can be applied to your entire brain (whole-brain radiation). Whole-brain radiation is

most often used to treat cancer that has spread to the brain from some other part of the body. Side effects of radiation therapy depend on the type and dose of radiation you receive. Common side effects during or immediately following radiation include fatigue, headaches and scalp irritation.

Toxic Fumes

India faces the growing threat of tobacco epidemic as tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women

BY DR SUNEELA GARG/DR.C.VANKHUMA

It has been estimated that there are more than 1.3 billion smokers world-wide, out of which about 80% belong to low and middle-income countries. According to the WHO estimates, India and China, the two most populous countries contribute to over 40% of the global tobacco users.

Today, developing countries are still in the early stages of the tobacco epidemic and they have yet to experience the full impact of tobacco-related disease and death already evident in more developed countries where tobacco use has been common for much of the past century.

The globalising epidemic of tobacco use is growing in developing countries which are being targeted by the tobacco industries with their attractive and deceptive marketing practices. It is estimated that with the current trends, as much as 80% of the global tobacco related deaths will be contributed by these countries by the year 2030. Every year, tobacco kills more than five million people which are more than tuberculosis, HIV/AIDS and malaria combined. Unless urgent action is taken, tobacco could kill one billion people during this century.

In people past the age 30, smoking accounts for one in every five deaths among men and one in every 20 deaths among women globally. Tobacco use is a risk factor for six of the eight leading causes of death in the world. These include heart disease, cerebrovascular diseases, lower respiratory tract infection, chronic obstructive pulmonary diseases (COPD), tuberculosis and cancer of the respiratory tract (lung, trachea and bronchus). Six million people die every year because of tobacco. This figure includes five million smokers, but also about 600,000 non-smokers exposed to second-hand smoke. Non-communicable diseases (NCDs) kill 35 million people annually, 80% of which are in low- and middle-income countries.

Tobacco is responsible for one out of six NCD deaths. Besides its ill-effect on health, tobacco use costs the world an estimated \$500 billion each year in healthcare expenditures, productivity

losses, fire damage and other costs. Tobacco-related illnesses and premature mortality impose high productivity costs to the economy because of sick workers and those who die prematurely during their working years. In India, tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women. About 80% (or 8 out of 10) of all deaths from COPD are caused by smoking. Our country also has one of the highest rates of oral cancer in the world, partly attributed to high prevalence of tobacco chewing.

TOBACCO USE IN INDIA

The Global Adult Tobacco Survey India (GATS India) was carried out in all six geographical regions for both urban and rural areas of 29 states of the country and the two Union Territories of Chandigarh and Pondicherry covering about 99.9 per cent of the total population of India. The survey is based on a sample of households which is representative at the national and state levels. GATS India conducted interviews with 69,296 adults aged 15 and above, 33,767 men and 35,529 women aged 15 and above.

The survey reports that the current tobacco use in any form is 34.6% of adults out of which 47.9% were males and 20.3% of them were females. From among the smokers 14.0% of adults were smoking and out of them: 24.3% are males and 2.9% of them were females. The total number of smokeless tobacco users was 25.9% of adults in which 32.9% of them are males and 18.4% are females.

Young people are the most vulnerable segment and adolescence is found to be

Every year, tobacco kills more than five million people which are more than tuberculosis, HIV/AIDS and malaria combined. Unless urgent action is taken, tobacco could kill one billion people during this century



Dr. C. Vankhuma

the most susceptible time for initiating tobacco use. Tobacco use among the adolescents in India is believed to be on an increase. It was estimated in 1999-2001 that approximately 5500 adolescents, some as young as 10 years old start tobacco use every day in our country and nearly 4 million young people under the age of 15 years are already using tobacco regularly. A study conducted in the year 2005 reported the current prevalence of any form of tobacco use among school-going adolescents (aged 13-15 years) in India to be 17.5%. Tobacco use in any form increased in India during the 7-year period between the NFHS-2 and NFHS-3, and the maximum increase in tobacco use occurred in persons between 15 and 24 years of age in the richer classes and in urban areas.

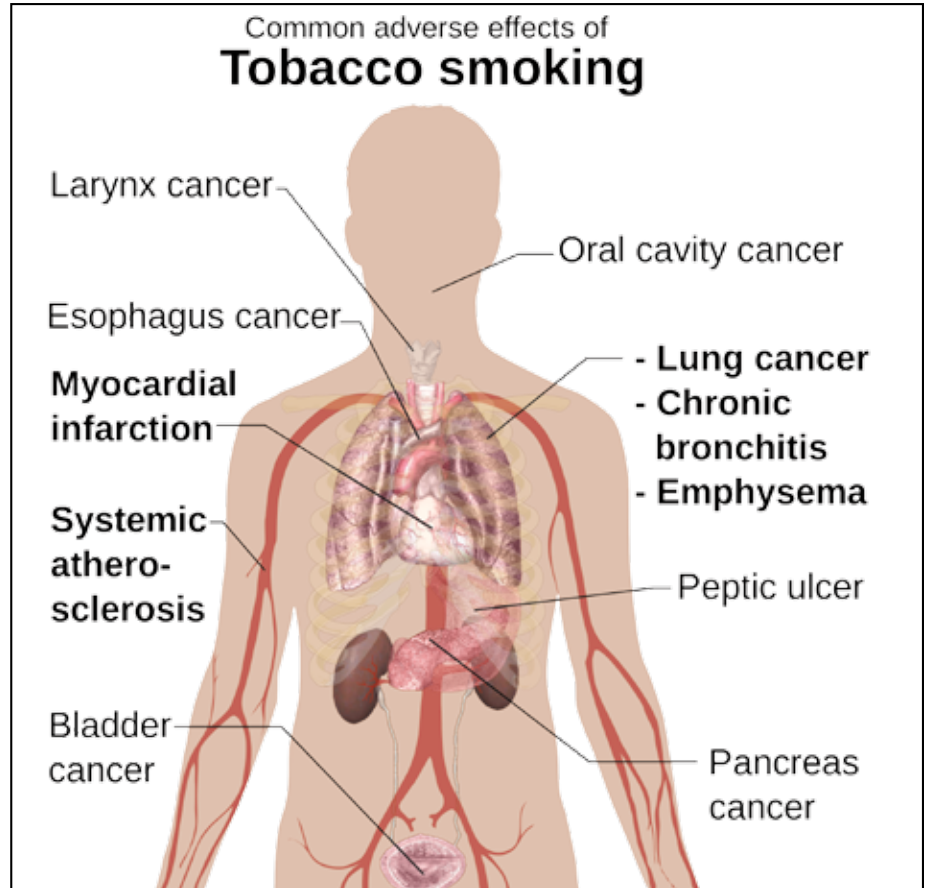
HEALTH CONSEQUENCES OF TOBACCO USE

Unlike many other dangerous substances, the impact of tobacco use on health is not so immediate. It usually takes decades or years after its first use to develop tobacco related disease in a person. Tobacco is used mainly in two forms which are mainly smoked as bidi, cigarette and hookah. It is also used in smokeless form as gul (powdered form tobacco), khaini (tobacco-lime mixtures) which is

applied to the oral mucosa, gutka (industrially manufactured and marketed tobacco product), and betel quid which is consisting of fresh betel leaf, lime, catechu, areca nut and tobacco and is chewed in the mouth. In some northeastern states of India a liquid form which is manufactured by passing tobacco smoke in water is also being consumed.

Tobacco smoke contains several carcinogenic pyrolytic products that bind to DNA and cause many genetic mutations. There are more than 7000 chemical substances in tobacco smoke out of which 49 are known or suspected chemical carcinogens. Tobacco also contains nicotine, which is a highly addictive psychoactive drug and is responsible for physical and psychological dependency. Tobacco use leads most commonly to diseases affecting the heart, liver and lungs. Smoking is a major risk factor for heart attacks, strokes, chronic obstructive pulmonary disease (COPD) (including emphysema and chronic bronchitis), and cancer (particularly lung cancer, cancers of the larynx and mouth, and pancreatic cancer). It also increases the incidence of coronary heart disease by 2 to 4 times and contributes to development of peripheral vascular disease and hypertension. It also increases the incidence of tuberculosis by 3-4 times as compared to non-smokers and the mortality from tuberculosis is shown to be about three times higher in smokers than that of non-smokers.

The effects depend on the number of years that a person smokes and on how much the person smokes. Starting smoking earlier in life and smoking cigarettes higher in tar increases the risk of these diseases. Also, environmental tobacco smoke, or secondhand smoke, has been shown to cause adverse health effects in people of all ages. Cigarettes sold in underdeveloped countries tend to have higher tar content, and are less likely to be filtered, potentially increasing vulnerability to tobacco smoking related diseases in these regions.



As per GATS India Chapter 2010, more than 52% of the adults in India were exposed to smoke at home and 29% in public places. Exposure to second hand smoke can lead to cancer and heart diseases among adults and SIDS (Sudden infant death syndrome), chronic respiratory infections, worsening of asthma, middle ear diseases and acute respiratory illness in children

Tobacco use is a significant factor in miscarriages among pregnant smokers, and it contributes to a number of other threats to the health of the foetus such as premature births and low birth weight

and increases by 1.4 to 3 times the chance for Sudden Infant Death Syndrome (SIDS). Incidence of impotence is approximately 85 percent higher in male smokers compared to non-smokers, and is a key factor causing erectile dysfunction (ED).

SECOND HAND SMOKE

Smokers are not the only ones harmed and killed by tobacco. Second-hand smoke also has serious and often fatal health consequences. Second hand smoke is the smoke exhaled by a smoker or smoke emanating from the burning end of a cigarette/bidi/cigar. In the United States, second-hand smoke causes about 3,400 lung cancer deaths and 46,000 heart disease deaths a year. In India, smoking is more prevalent among men, therefore women and children are prone to exposure of second hand smoke in their homes.

As per GATS India Chapter 2010, more than 52% of the adults in India were exposed to smoke at home and 29% in

public places. Exposure to second hand smoke can lead to cancer and heart diseases among adults and SIDS (Sudden infant death syndrome), chronic respiratory infections, worsening of asthma, middle ear diseases and acute respiratory illness in children.

FIGHTING THE TOBACCO EPIDEMIC

The WHO has been giving aid to the countries to fight tobacco use and the tobacco industry's marketing of its products. In May 2003, the WHO World Health Assembly unanimously adopted the WHO Framework Convention on Tobacco Control (FCTC); the world's fight against tobacco in order to support action at the global and country level against the tobacco epidemic. The core demand reduction in the FCTC includes price and tax measures and non-price measures to reduce tobacco demand. It comprises of protection from exposure to tobacco smoke in public places or transports, regulation on tobacco product contents and regulation on disclosures, packaging and labeling of tobacco products so as to prevent its promotion, enhancing public awareness and comprehensive ban on tobacco advertising, promotion and sponsorships etc. The core supply reduction provisions in the FCTC includes prevention of illicit trade on tobacco, banning of sale to minors and providing alternative means of economic support to workers engaged in tobacco industries.

In order to spearhead the fight against the current global tobacco epidemic, the WHO has introduced the MPOWER package of six proven policies which basically may be elaborate as monitor tobacco use and prevention policies, protect people from tobacco smoke, offer help to quit tobacco use, warn about the dangers of tobacco, enforce bans on tobacco advertising, promotion and sponsorship, and raise taxes on tobacco.

This policy package can help reverse the tobacco epidemic and help reduce the mortality from tobacco related diseases. In order to protect the health of the people from the effect of smoking and to control its use, the Government




Tobacco smoke contains several carcinogenic pyrolytic products that bind to DNA and cause many genetic mutations. There are more than 7000 chemical substances in tobacco smoke out of which 49 are known or suspected chemical carcinogens

of India has taken various initiatives for tobacco control in the country. India was among the first few countries to ratify WHO the Framework Convention on Tobacco Control (WHO FCTC) in 2004.

The National Tobacco Control Programme was started during the 11th Five Year Plan which is under implementation in 42 districts of 21 states in the country. The main objectives of the programme are to bring greater awareness about the harmful effects of tobacco use and tobacco control laws through mass media, public awareness campaigns etc. It also aims to facilitate the effective Implementation of the Tobacco Control laws in the country. The government enacted a comprehensive tobacco control legislation titled "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade & Commerce, Production, Supply and Distribution ACT, 2003" in May 2003. The important provisions of this Act includes ban on smoking in public places, display of

prominent signboard on anti-smoking signage at public places, prohibition of direct/indirect advertisement and sponsorship of tobacco products, ban on sale to minors, mandatory depiction of statutory warnings on tobacco products, specific health warnings on tobacco products and ban on sale of tobacco products with 100 yards of the educational institution.

However, the Act has many limitations which include limited coverage on chewable tobacco products like gutkha and measures on tackling second hand smoke, lack of focus on smokeless tobacco industry, poor compliance from many states and lack of effective implementation of the law by various enforcement agencies in the state.

In response to these drawbacks, the Centre has moved to improve on the COTPA Amendment Act 2015 and has proposed radical changes. Some of the major recommendations include ban on sale of loose cigarettes and raising the minimum age of a person buying tobacco products to 21 years from existing 18, constitution of National Tobacco Control Organization, raising of fine to Rs 1000 from Rs 200 on smoking in public places as well as recommending removal of designated smoking zones in hotels and restaurants. If we have to address the silent epidemic the approach has to be pragmatic, realistic on an urgent basis. 

(The authors are from the faculty of Community Medicine, Maulana Azad Medical College and associated hospitals, New Delhi)

Managing Cancer Pain

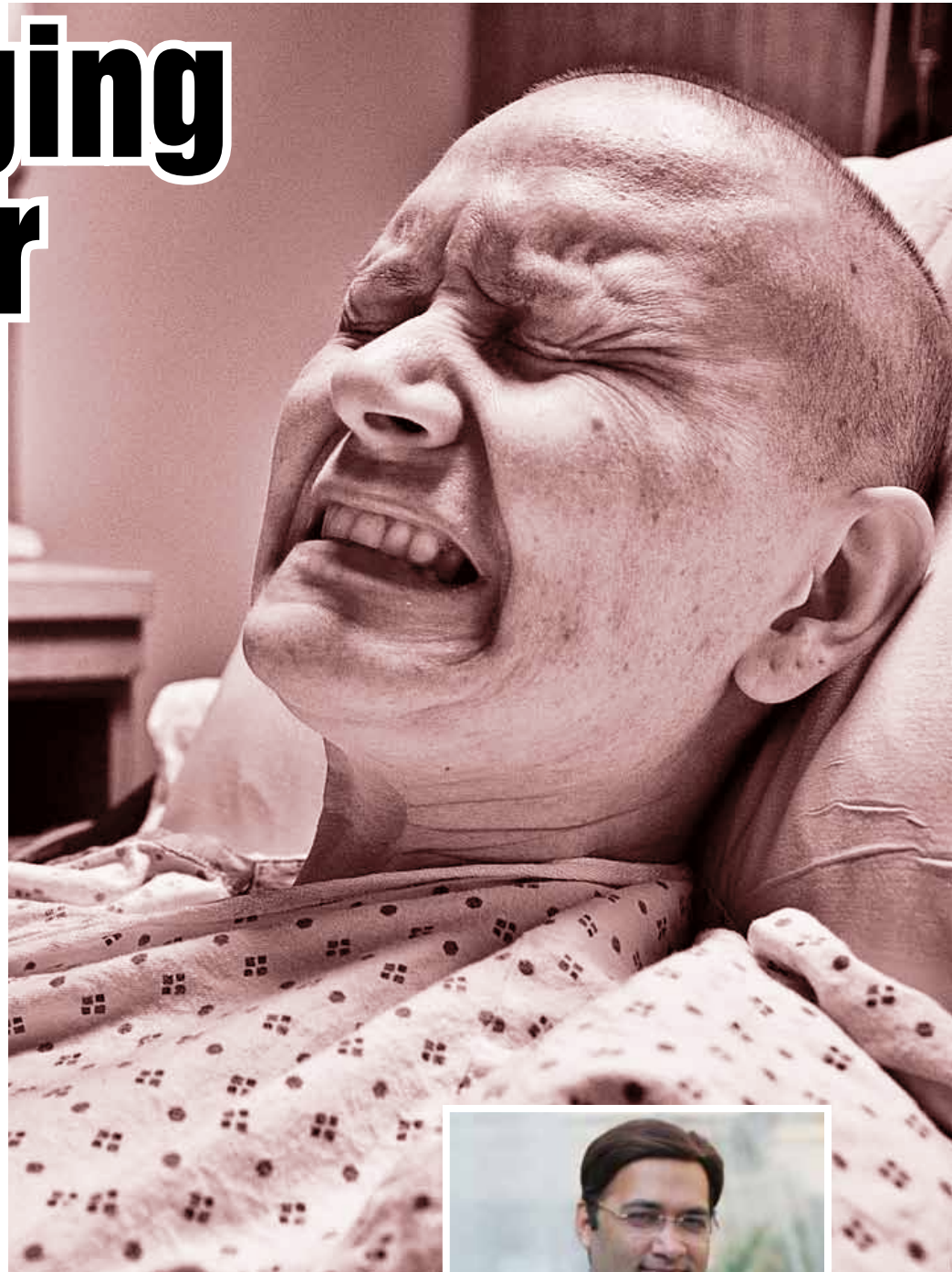
If inadequately controlled, cancer pain can have a profoundly adverse impact on the patients. On the other hand, patients with well-managed pain have improved quality of life

BY ABHIGYAN

Pain control can improve patients' quality of life all through the cancer treatment and after it ends. Pain can be managed before, during, and after diagnostic and treatment procedures. Each patient needs a personal plan to control cancer pain.

Patients with cancer have diverse symptoms, impairments in physical and psychological functioning, and other difficulties that can undermine their quality of life. If inadequately controlled, pain can have a profoundly adverse impact on the patient and his or her family. The critical importance of pain management as part of routine cancer care has been forcefully advanced by WHO, international and national professional organisations, and governmental agencies.

Prospective surveys indicate that as many as 90% of patients could attain adequate relief with simple drug therapies, but this success rate is not



achieved in routine practice. Inadequate management of pain is the result of various issues that include under treatment by clinicians with insufficient knowledge of pain assessment and therapy; inappropriate concerns about side effects and addiction; a tendency to give lower priority to symptom control than to disease management; patients



Dr G N Goyal, Senior Oncologist, Sri Balaji Action Hospital, New Delhi

under-reporting of pain and non-compliance with therapy; and impediments to optimum analgesic therapy in the healthcare system.

According to Dr G N Goyal, Senior Oncologist, Sri Balaji Action Hospital, New Delhi, to improve the management of cancer pain, every practitioner involved in the care of these patients must ensure that his or her medical information is current and that patients receive appropriate education.

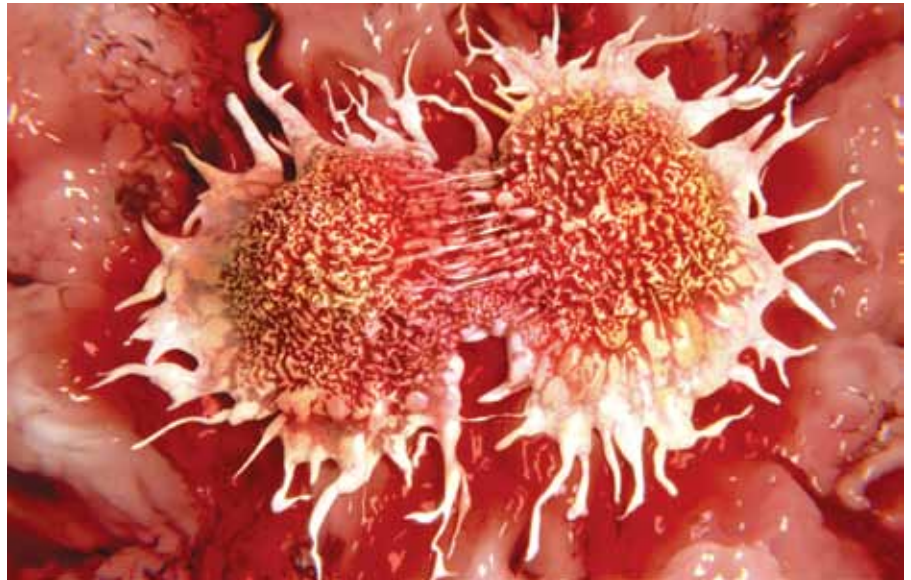
Some drugs like morphine may be used to help patients feel calm or fall asleep. Treatments such as imagery or relaxation can also help control pain and anxiety related to treatment. Knowing what will happen during the procedure and having a relative or friend stay with patient may also help lower anxiety.

Morphine dose escalation was observed in about one-half of the patients being cared for until death, whereas the other half had stable or decreasing doses over the course of treatment. Wide dissemination of WHO guidelines among doctors is necessary to effect a clear improvement in the treatment of the many patients suffering from cancer pain in the clinical and home setting.

Tumors, surgery, chemotherapy, or radiation therapy may cause pain. Patients with advanced cancer have more severe pain, and many cancer survivors have pain that continues after cancer treatment ends. Pain can be controlled in most patients with cancer. Although cancer pain cannot always be relieved completely, there are ways to lessen pain in most patients.

Acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs) may be used to relieve mild pain. NSAIDs may be given with opioids for moderate to severe pain. Acetaminophen also relieves pain, although it does not have the anti-inflammatory effect that aspirin and other NSAIDs do.

Some patients with cancer pain stop getting pain relief from opioids during long-term therapy. Larger doses or a different opioid may be needed if your body stops responding to the same dose. Tolerance of an opioid is a physical dependence on it. Opioid doses can be



safely increased by doctor as needed for your pain, without causing addiction.

There are several types of opioids like morphine which is the most commonly used opioid for cancer pain: Hydromorphone, Oxycodone, Oxymorphone, Methadone, Fentanyl etc. The doctor prescribes these drugs in order to control pain to the optimum level.

Receiving opioids on a regular schedule helps manage the pain and keeps it from getting worse. The amount of time between doses depends on which opioid is being used. The correct dose is the amount of opioid that controls your pain with the fewest side effects. The dose will be slowly adjusted until there is a good balance between pain relief and side effects. If opioid tolerance does

“Cancer pain, or the discomfort that stems from cancer and its treatment, can be controlled most of the time. There are different medicines and methods available to control cancer pain. People who have cancer and are feeling pain need to inform their doctor immediately. The earlier pain treatment is started, the more effective it may be.”

occur, it can be overcome by increasing the dose or changing to another opioid.

Dr Nitin Leekha, Oncologist, Pushpanjali Crosslay Hospital, Vaishali, Ghaziabad, points out, “It’s important to start cancer pain treatment as early as possible to get the maximum benefit. The majority of people with cancer will experience pain at some time or another. The pain can result from the cancer itself, or from the cancer’s treatment. In addition, some people who have been cured of their cancer can continue to suffer from pain.”

Elaborates Dr G N Goyal, Senior Oncologist, Sri Balaji Action Hospital, “Cancer pain, or the discomfort that stems from cancer and its treatment can be controlled most of the time. There are different medicines and methods available to control cancer pain. People who have cancer and are feeling pain need to inform their doctor immediately. The earlier pain treatment is started, the more effective it may be.”

There are many causes of cancer pain, but often cancer pain occurs when a tumour presses on nerves or body organs or when cancer cells invade bones or body organs. Cancer treatments such as chemotherapy, radiation, or surgery also may cause pain.

The symptoms of cancer pain vary from person to person. The amount of pain may depend on the type of cancer,



the stage or extent of the disease, and the person's pain threshold (tolerance for pain). Pain can range from mild and occasional to severe and constant.

About one-third of patients being treated for cancer experience pain, which can take many forms. It may be short-lived or long-lasting, mild or severe, or affect one or a few organs, bones or organ systems. Since each patient's pain is unique, cancer pain management treatment plans must be tailored to address individual needs.

Narcotic pain relievers require a prescription and may be used along with mild pain relievers for moderate to severe pain. If there are tingling and burning pain sensations, certain antidepressants are used to relieve pain even if the person is not depressed.

Cancer pain is treatable. About nine out of 10 cancer pain patients will find relief using a combination of medications. Many medicines are used for cancer pain management. Some drugs are general pain relievers, while others target specific types of pain. Most pain drugs require a prescription.

Most pain medicine is taken by mouth (orally). Oral medicines, either in pill or liquid form, are easy to take and usually cost less than other kinds of medicine. Other methods for administering pain drugs include:

The doctors may recommend certain non-drug treatments for cancer pain management to supplement pain medication. These treatments will help make your medicines work better and relieve other symptoms, but they should

“The majority of people with cancer will experience pain at some time or another. The pain can result from the cancer itself, or from the cancer’s treatment. In addition, some people who have been cured of their cancer can continue to suffer from pain.”

Dr Nitin Leekha, Oncologist,
Pushpanjali Crosslay Hospital,
Vaishali, Ghaziabad

not be used instead of medication.

Some patients have pain that is not relieved by medicine. In these cases the following treatments for cancer pain management can be used to reduce pain:

Radiation therapy treatment reduces pain by shrinking a tumour. A single dose of radiation may be effective for some people. Certain nerve blocks, temporary or permanent, may help relieve some painful conditions. Implanted pain pumps can also provide relief in some patients.


Says Dr Nitin Leekha “The pain of cancer is usually constant. Persons with well-managed pain have improved quality of life. They are likely to sleep better and have more energy during the day. Being as active as possible also reduces the risk of ailments like pneumonia, blood clots and bedsores, which are associated with immobility.”

The foundation of cancer pain

management is regular medication. Combining medications to gain maximum benefit is common. radiotherapy, surgery, hormone therapy and chemotherapy – if successful in reducing tumour size – may also relieve pain. Other techniques that may be helpful include relaxation therapies and acupuncture.

The type of pain experienced influences the choice of medications and their use. Some of the factors that influence the treatment choices include the location of the pain and the severity of the pain which may be sharp, tingling or aching

It is important to know whether the pain is persistent, or comes and goes and what activities or events make the pain worse. Pain relief can be provided by a range of medications for example opioids like codeine and morphine. Some of the side effects may include nausea, vomiting, drowsiness and constipation. There is, however, no danger of addiction if taken for pain relief purposes. There are several newer opioids available, so one can usually be found to suit.

Many people worry about taking opioids, because they are afraid to become addicted or think they should wait until they are very ill before they use these drugs. Evidence shows that it is far better to find a suitable opioid and use it regularly from the time when your pain becomes constant. It is best to take the prescribed doses of pain-relieving medications regularly, rather than wait for the pain to strike. If your pain is well managed, you are less likely to take large doses. 

Sleep Apnea

A Serious Health Hazard

People who snore are more likely to experience an early decline in memory

BY AMRESH KUMAR TIWARY

Do you wake up tired and not feeling fresh? Do you snore? Do you have high blood pressure? Do you have nocturia (passing urine during sleep)? If you have any of these symptoms, you may have Sleep Apnea.

Sleep Apnea is a common disorder in which you have one or more pauses in breathing or shallow breaths while you sleep. Breathing pauses can last from a

few seconds to minutes. They may occur 30 times or more an hour. Typically, normal breathing then starts again, sometimes with a loud snort or choking sound.

Snoring is a form of sleep apnea, in which people stop breathing for a few seconds or several minutes' dozens of times in an hour. Any disruption of breathing during sleep can affect the brain. According to research people with sleep apnea tended to develop memory

Sleep apnea usually is a chronic condition that disrupts your sleep. When your breathing pauses or becomes shallow, you'll often move out of deep sleep and into light sleep. As a result, the quality of your sleep becomes poor, which makes you tired during the day. These days this is a leading cause of excessive daytime sleepiness.



Vipul Mishra, Senior Consultant Pulmonology and Intensive Care, Pushpanjali Crosslay Hospital, Vaishali (Ghaziabad)

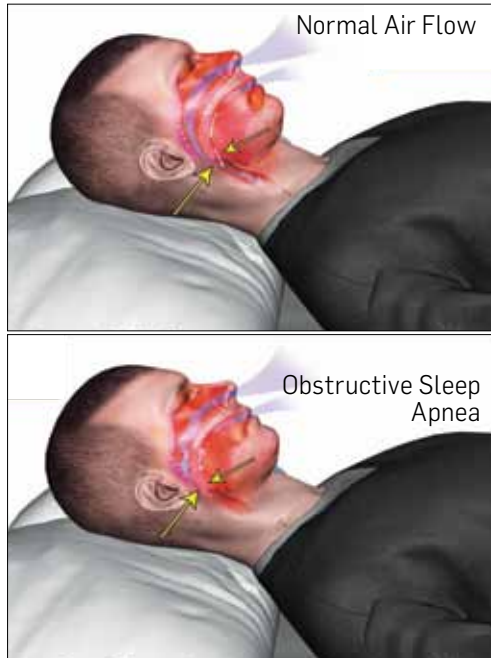


problems and other signs of mild cognitive impairment (MCI) earlier than people without such sleep disorders.

If you don't snore, you likely know someone who does. Between 19% and 40% of adults snore when they sleep, and that percentage climbs even higher, particularly for men, as we age. It's a nuisance for bed partners, but researchers say we shouldn't be so quick to write off snoring or other forms of disrupted breathing while asleep as mere annoyances; instead, they could be affecting the brain, according to new research.

People who snore are more likely to experience an early decline in memory. Those with sleep apnoea saw a mental decline more than a decade earlier. Sleep apnoea is where the throat narrows in sleep, interrupting breathing. Onset of

Sleep Apnea



Alzheimer's might be accelerated for people with sleep problems

Effective identification and treatment of sleep apnea is essential to reduce avoidable, life-threatening accidents caused by drowsy driving. Subtle symptoms include snoring, waking up frequently in the night. People who snore are more likely to experience an early decline in memory. Those with sleep apnoea saw a mental decline more than a decade earlier. Sleep apnoea is where the throat narrows in sleep, interrupting breathing. Onset of Alzheimer's might be accelerated for people with sleep problems

Effective identification and treatment of sleep apnea is essential to reduce avoidable, life-threatening accidents caused by drowsy driving. Subtle symptoms include snoring, waking up frequently in the night to urinate, headaches in the morning or waking up with a dry mouth's night to urinate, headaches in the morning or waking up with a dry mouth.

Vipul Mishra, Senior Consultant Pulmonology and Intensive Care, Pushpanjali Crosslay Hospital, Vaishali (Ghaziabad), said, "Sleep apnea is often diagnosed with an overnight sleep test called a polysomnogram, or sleep study.

There are three forms of sleep apnea like Central Sleep Apnea (CSA), Obstructive Sleep Apnea (OSA), and complex or mixed sleep apnea. In CSA, breathing is interrupted by a lack of respiratory effort, in OSA, breathing is interrupted by a physical block to airflow despite respiratory effort, and snoring is common."

Regardless of type, an individual with sleep apnea is rarely aware of having difficulty breathing, even upon awakening. Sleep apnea is recognised as a problem by others witnessing the individual during episodes or is suspected because of its effects on the body.

According to Dr Vipul Mishra, "The most common type of sleep apnea is OSA. In this condition, the airway collapses or becomes blocked during sleep. This causes shallow breathing or breathing pauses. When you try to breathe, any air that squeezes past the blockage can cause loud snoring. OSA is more common in people who are overweight, but it can affect anyone. For example, small children who have enlarged tonsil tissues in their throats may have OSA."

OSA can increase the risk of high blood pressure, heart attack, heart failure, stroke, obesity, diabetes, or worsen the chances of having work-related stress or driving accidents. Sleep apnea is a chronic condition that requires long-term management. Lifestyle changes, surgery, and breathing devices can successfully treat sleep apnea in many people.

According to the National Institutes of Health, 12 million Americans have OSA. In metro cities like Delhi, Mumbai and other sub urban cities, the incidence of OSA is increasing. But people either do not report the condition or do not know that they have sleep apnea.

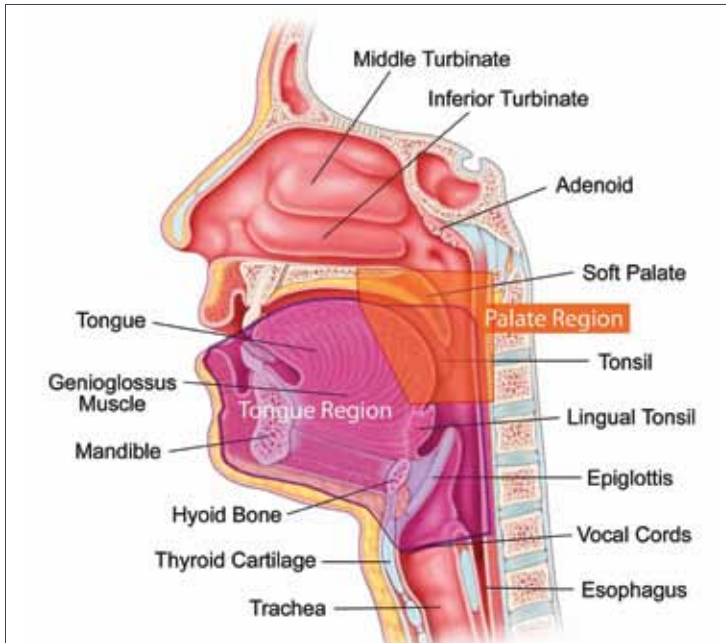
Sleep apnea usually is a chronic condition that disrupts your sleep. When your breathing pauses or becomes shallow, you'll often move out of deep sleep and into light sleep. As a result, the quality of your sleep becomes poor, which makes you tired during the day. These days this is a leading cause of excessive daytime sleepiness.

Says Dr Mukesh Aggarwal, senior physician Yashoda Superspeciality Hospital, "Sleep apnea is classified as a dyssomnia, meaning behaviour or psychological events occur during sleep. When breathing is paused, carbon dioxide builds up the bloodstream. The brain is signalled to wake the person sleeping and breathe in air. Breathing normally will restore oxygen levels and the person will fall asleep again."

The OSA may increase risk for driving accidents and work-related accidents. If this is not treated, one has an increased risk of other health problems such as diabetes. Even death could occur from untreated obstructive sleep apnea due to lack of oxygen to the body. Moreover, patients are examined using "standard test batteries" in order to further identify parts of the brain that are affected by sleep apnea. Tests have shown that certain parts of the brain cause different effects. The executive functioning part of the brain affects the way the patient plans and initiates tasks. Second, the part of the brain that deals with attention causes difficulty in paying attention, working effectively and processing information when in a waking state. Thirdly, the part of the brain that uses memory and learning is also affected.

Due to the disruption in daytime cognitive state, behavioural effects are also present. This includes moodiness, belligerence, as well as a decrease in attentiveness and drive. Another symptom of sleep apnea is waking up in sleep paralysis. In severe cases, the fear of sleep due to sleep paralysis can lead to insomnia. These effects become very hard to deal with, thus the development of depression may transpire. There is also evidence that the risk of diabetes among those with moderate or severe sleep apnea is higher.

Observes Dr Mukesh Aggarwal, "Symptoms may be present for years (or even decades) without identification, during which time the sufferer may become conditioned to the daytime sleepiness and fatigue associated with significant levels of sleep disturbance. Sleep apnea affects not only adults but some children as well. Patients complain



about excessive daytime sleepiness and impaired alertness. In other words, common effects of sleep apnea include daytime fatigue, a slower reaction time, and vision problems.”

There is also increasing evidence that sleep apnea may also lead to liver function impairment, particularly fatty liver diseases. Finally, because there are many factors that could lead to some of the effects previously listed, some patients are not aware that they suffer from sleep apnea and are either misdiagnosed, or just ignore the symptoms altogether.

Sleep Apnea – Treatment

Sleep apnea is a serious sleep disorder that needs to be treated. A board certified sleep physician can help you select a treatment plan that is right for you. It can be treated by different ways like CPAP (Continuous Positive Airway Pressure) Oral Appliance Therapy, Oral Appliance Therapy, Weight Management and Surgery. CPAP is a machine that uses a steady stream of air to gently keep your airway open throughout the night so you are able to breathe. You sleep with a mask with a hose that is attached to a machine kept at the bedside. Masks and machines may vary depending on your treatment and comfort needs.

An oral appliance is a device that fits in your mouth over your teeth while you sleep. It may resemble a sports mouth guard or an orthodontic retainer. The device prevents the airway from collapsing by holding the tongue in position or by sliding your jaw forward so that you can breathe when you are asleep.

Some patients prefer sleeping with an oral appliance to a CPAP machine. A dentist trained in dental sleep medicine can fit you with an oral appliance after you are diagnosed with sleep apnea. Oral appliance therapy is recommended for patients with mild to moderate apnea who cannot tolerate CPAP.


Surgical therapies are not as effective in treating sleep apnea as CPAP and oral appliances. There are a variety of surgical options you can elect to have if CPAP or oral appliance therapy does not work for you. The most common options reduce or eliminate the extra tissue in your throat that collapses and blocks your airway during sleep. More complex procedures can adjust your bone structures including the jaw, nose and facial bones. Weight loss surgery may also be an option. Talk to your sleep medicine physician about what surgery is right for you.

In some cases weight loss can help

CPAP is the front line treatment for OSA and is recommended for all cases.

improve or eliminate your sleep apnea symptoms if you are overweight or obese. Overweight people often have thick necks with extra tissue in the throat that may block the airway. There is no guarantee that losing weight will eliminate your sleep apnea, though it may help. This approach is unlikely to make a difference in patients with a narrow nasal passage or airway.

Positional therapy is a behavioural strategy to treat positional sleep apnea. Some people have sleep apnea primarily when sleeping on their back. This is called the “supine” position. Their breathing returns to normal when they sleep on their side. Positional therapy may involve wearing a special device around your waist or back. It keeps you sleeping in the side position. Another option is a small device that uses “vibro-tactile feedback” technology. Worn on the back of the neck, it gently vibrates when you start to sleep on your back. Without waking you up, the vibration alerts your body to change positions. Positional therapy can be used alone or together with another sleep apnea treatment.

There are a variety of lifestyle changes that you can make to help you reduce your snoring and improve your sleep apnea symptoms. Behavioural changes such as quitting smoking or not drinking alcohol may help in this regard. Alcohol relaxes your throat muscles which can cause you to snore or for your airway to collapse. If you have allergies, taking a decongestant before you go to bed may help improve airflow through your nose. 

Healthcare Challenges before India

BY DR A K AGGARWAL



Historically, disparities in access to health care and health outcomes can be seen between insured and uninsured people. However, the new approach to cost containment, which asks individuals to pay more for their own healthcare, is going to lead to tiering, in which those with higher incomes will be able to afford a wider range of healthcare services than much of the middle class and those with lower incomes. This trend is already visible.

Several studies have found that middle-class insured people experience more problems getting care that are related to cost than do people with higher incomes. In addition, middle-class people are substantially more worried than those with higher incomes about paying for health insurance and healthcare in the future.

Individuals with higher incomes and private long-term care insurance coverage will have a wide variety of options available to them. But because of both insufficient financing and a lack of available services, middle-class people and those who rely on publicly financed.

During the early 1990s, the number of uninsured decreased as more people gained insurance through their employers. But by the end of the decade, the number of uninsured had again increased, as the economy softened and the number of people with employer-sponsored coverage decreased.

A substantial body of research has shown that the uninsured do not receive the same amount of care as those with insurance, suffer serious health consequences as a result of being uninsured, and face serious financial problems when they do get care. Local health care systems, and safety-net hospitals in particular, experience financial strain when providing care for a large uninsured population. Without major new government spending, local health care systems will come under increasing financial pressure as the number of uninsured grows.

In the mid-1980s, organ transplants were the expensive new technology, and the financing of these procedures is still difficult. But there are many new and expensive technologies on the horizon, drugs in particular, that are likely to be only partially covered by insurance. The recent debate over a medicare drug benefit has publicized the lack of drug coverage among the elderly. However, what is less well known is that although many people with employer-sponsored insurance have drug coverage, they are being asked to assume an increasing proportion of the cost of their prescriptions.


Thus, there may well be a conflict between the public's interest in new technologies and efforts by government and employers to restrict coverage in an effort to control costs. In addition, this lack of comprehensive coverage



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may discourage pharmaceutical companies from developing products that are clinically beneficial but not financially advantageous.

The recent years have seen emergence of severe acute respiratory syndrome and West Nile virus, the steady increase in HIV/AIDS domestically and its rapid growth worldwide. It is now clear that infectious diseases remain a threat, which will likely lead to greater interest in specialization in infectious disease and in rebuilding the public health system.

Smoking and obesity are among the major threats to health. Although many such lifestyle issues have been important to public health since the 1970. The businesses and government are becoming increasingly involved in trying to change behaviours, in order to keep healthcare costs down. Possible actions include the introduction of new insurance products that provide a carrot-and-stick incentive system for enrollees. Positive incentives to engage in or maintain healthy behaviours might include discounted health club memberships and free smoking cessation programs. Individuals who do not work to change unhealthy behaviours might be sanctioned. For example, people who smoke might have to pay more for their health insurance. 

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What Ails Delhi's Health

Delhi's burgeoning population poses many challenges in healthcare delivery system. Poor political will, bureaucratic apathy and inertia have contributed to the sorry state of affairs on the medical front

DR VINAY AGGARWAL



Healthcare is an integral component policy of the functioning of government. Good health indices reflect the productivity and dynamism of a society.

The capital city Delhi is the capital of India and enjoys the status of a partial state: it is a union territory, but at the same time, has an elected legislative assembly. The densely populated capital city Delhi poses many challenges in all areas, including healthcare delivery

system. In addition to a thriving private health sector, the healthcare services in Delhi are provided by the central government and the state government. Central governmental agencies like Ministry of Health and Family Welfare, ESI, CGHS (Central Government Health Scheme), and Railways operate hospitals and dispensaries.

At the state level, the Health Ministry of National Capital Territory (NCT) of Delhi is a major player. The state government typically spends about 10 of its 40 thousand crore annual budget

on healthcare. It runs 39 hospitals and about 300 allopathic dispensaries. In addition, the state health department also runs mobile dispensaries, school health scheme, Centralised Accident and Trauma Services (CATS) and its AYUSH department administers Ayurveda, Unani and Homeopathic dispensaries and hospitals. The department is also responsible for executing several public health programmes.

At the national level, government of India spends a measly 4% of its budget on health. Given that, Delhi government's 10% looks healthier, but it still leaves a lot to be desired. Given Delhi's burgeoning population, large clusters of slums (50 lakh population), the healthcare system remains overwhelmed. Visit any hospital in Delhi and you will see lack of resources, overcrowding, and lack of cleanliness. Poor political will, bureaucratic apathy and inertia have contributed to the sorry state of affairs. Many of the rural healthcare facilities are dysfunctional and a burden on the state exchequer because of the gross under-utilisation.

Delhi's crumbling healthcare system needs overhaul and some out of the box ideas. While, increasing budgetary spending on health will definitely help, there could be several other ways to meet the need. Affordable primary healthcare access is a major challenge for poor and middle class people in Delhi. 300 odd allopathic dispensaries and nine Primary Urban Health Centres (PUHCs) are clearly inadequate to meet the demand.

If this impasse could be broken during the next decade, then the Delhi could see solutions to many of these problems. Although managed care did restrain cost growth for a few years, the recent performance of individual health plans suggests that this will not be a major vehicle for future cost containment. The government is likely to try to constrain Medicare and Medicaid spending, but it is unlikely that there will be an overall national limit placed on healthcare spending, such as that proposed by the Clinton




administration. Rather, we expect to see both business and government asking the public to pay more out of pocket for their health insurance and the care they receive.

At the national level, the biggest health challenge is the continued failure of decision-makers to reach consensus on how to address the major healthcare problems facing the country. Forecasting the future of health care and health policy is an imperfect science.

Among the predictions made earlier were that there would be a physician surplus, a growing number of elderly people, and an increase in the number of people in managed care plans,

restructured health benefits, new technologies, more for-profit health care delivery, rising health care costs, and a restrained federal government role.

All of these issues – with the exception of a physician surplus, which is still being debated – are likely to have an impact on health policy. Several of these will continue to challenge policymakers during the next decade, and new or re-emerging issues will also pose challenges. 

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Cutting off Excess Flab

Bariatric surgery can be opted for when other weight loss methods such as diet management and physical exercise, are not effective. It is a misconception that this surgery restricts the absorption of nutrients causing malnutrition

BY DR PRADEEP JAIN



The trend of bariatric surgery, generally referred to as weight loss surgery, has been fast catching up as one of the best treatment options available in all major cities including Delhi/NCR, Chennai, Bangalore, Mumbai, and Calcutta. When other fat reduction methods such as diet management and physical exercise, are not effective, bariatric surgery emerges as the best alternative to lose and manage weight in a planned manner.

As per a report, 20-25% people in India are overweight, of which 7-9% are morbidly obese which amounts to a staggering 2-2.5 million people. Incidence of childhood obesity is on the rise due to changing lifestyles. These people are more likely to develop obesity related complications at an earlier age. If not addressed today, this problem is likely to compound imposing heavily on medical resources.

Bariatric surgery procedures for obesity can now be safely performed by laparoscopic approach. Patients suffering from morbid obesity stand to benefit tremendously by laparoscopic surgery thus decreasing the hospital stay, minimising pain and an early return to activity. Laparoscopic Sleeve has emerged as a highly popular and successful surgery for morbid obesity. The patient feels full after just few bites of food thus decreasing the intake and resulting in the weight loss. The procedure is safe and simple. It can be done as a short stay procedure (hospitalisation for 2-3 days). It is a very patient friendly procedure with tiny cuts on the abdominal wall hence an excellent cosmetic result (only few tiny puncture marks), very little pain and patient can resume his or her work within few days after surgery.

Given the cost advantage of medical treatment in India, medical practitioners cater to patients from around the globe for weight loss surgery. Hospitals like Sri Balaji Action Hospital, New Delhi are the preferred hospitals for foreign governments, corporates and dignitaries. These hospitals assist

international patients for all their medical, and travel and accommodation needs.

Bariatric surgery can be performed on all kinds of patients except if they have an unstable heart condition or untreated angina, or are psychologically unstable in which case they don't understand/appreciate what is required after bariatric surgery and will not follow-up.

As per a case study, people who are at least 25 to 30 kilos overweight with BMI (Body Mass Index) 32.5 or above are advised for surgery. People with severe diabetes, hypertension or obstructive sleep apnea associated with obesity are also likely eligible. Women who have irregular periods and are unable to conceive due to obesity can also opt for the surgery.

Bariatric surgery plays an important role in treatment of Type 2 diabetes by changing the hormonal levels in the blood. The insulin that is produced in the body becomes sufficient.

Insulin resistance is increased and blood sugar is controlled. Over 80% of the patients after the surgery will have normal blood sugar without medicines which is very significant because worldwide 60% of patients have uncontrolled blood sugar levels even with medicines.

This entails a comprehensive workup including tests and investigations, psychological and emotional support before and after surgery for the best chances of weight loss success. The

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Dr Pradeep Jain

surgery itself is not the whole answer. A multidisciplinary team of surgeon, dietician and psychiatrist is needed to help the patient lose and keep weight off. The goal is not only weight loss, but also the reversal of serious medical conditions.

Obesity today is recognised as a health problem of epidemic proportions. Obesity refers to a spectrum of problems of excess weight ranging from mild overweight to the morbidly obese. Patients with morbid obesity do not respond to medical means of weight loss. Efforts to treat morbid obesity through controlled diets, behaviour modification and exercise programmes are only temporarily successful with the patient invariably regaining even more weight than the amount lost. Obesity surgery is the only method by which long-term weight loss can be achieved in these patients.

Obesity leads to hypertension, diabetes, heart ailments, joint problems and obstructive sleep apnea. These are all responsible for reduced life expectancy and impaired quality of life. Obesity is estimated to be the number two killer disease of the 21st century. Interaction between biological, behavioral and environmental factors leads to obesity. Weight management for an obese individual is a complex issue that requires various levels of education, behavioral modification and



Bariatric surgery



surgical intervention.

Cosmetic procedures Liposuction and Tummy Tucks are done in a person whose weight is normal or near normal but has excess fat in particular parts of the body. Liposuction removes excess fat from thighs, back etc. Tummy tuck is done in the lower part of abdomen. The part of the abdomen that is in excess is tucked or removed and the skin is tightened so that you get a flat tummy. Other bariatric procedures are Sleeve Gastrectomy, Gastric Banding and Gastric Bypass.


Many instructions are given before surgery to ensure that the procedure is safe for the patient. Tests to evaluate fitness before surgery which include heart, lung and kidney check-up, liver function, cholesterol, etc. are conducted. If any correctable problem or deficiency is diagnosed in these

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tests, then it should be attended to. Most of the people who are overweight by 25 to 30 kg also have a fatty liver. Such patients are put on a diet for one to two weeks before surgery primarily to reduce the fat content of the liver and not for weight loss. Patients are also taught breathing exercises.

After the surgery, patients should be on a liquid diet for about two weeks to ensure healing after which they are advised to be on a soft diet for a while. They are also prescribed supplements of protein, vitamin, calcium and iron to compensate for the deficiency of nutrients during the healing period.

Bariatric surgery is just a tool. Making the right lifestyle changes is the most important decision that the patient needs to make. If patients eat good quality food and are physically active, they can lose anywhere between 70 to 95% of their extra weight. The risk with bariatric surgery is primarily the same as with any other surgery. The risk is associated with anaesthesia, how the surgery is done and how the follow-up is done over a period of time. After the surgery, the risk is only of nutritional deficiency which can be completely avoided with patient compliance and regular follow-ups.

It is a misconception that the surgery restricts the absorption of nutrients causing malnutrition. Most of the bariatric surgeries work on the principle of reducing the portion size and not on malabsorption. There are very few procedures which work on principle of malabsorption and are not done in countries where there are more vegetarians. It is possible that some patients may have malnutrition which can be completely prevented by following post-operative guidelines and having more proteins, vitamins, calcium and iron in their diet. 

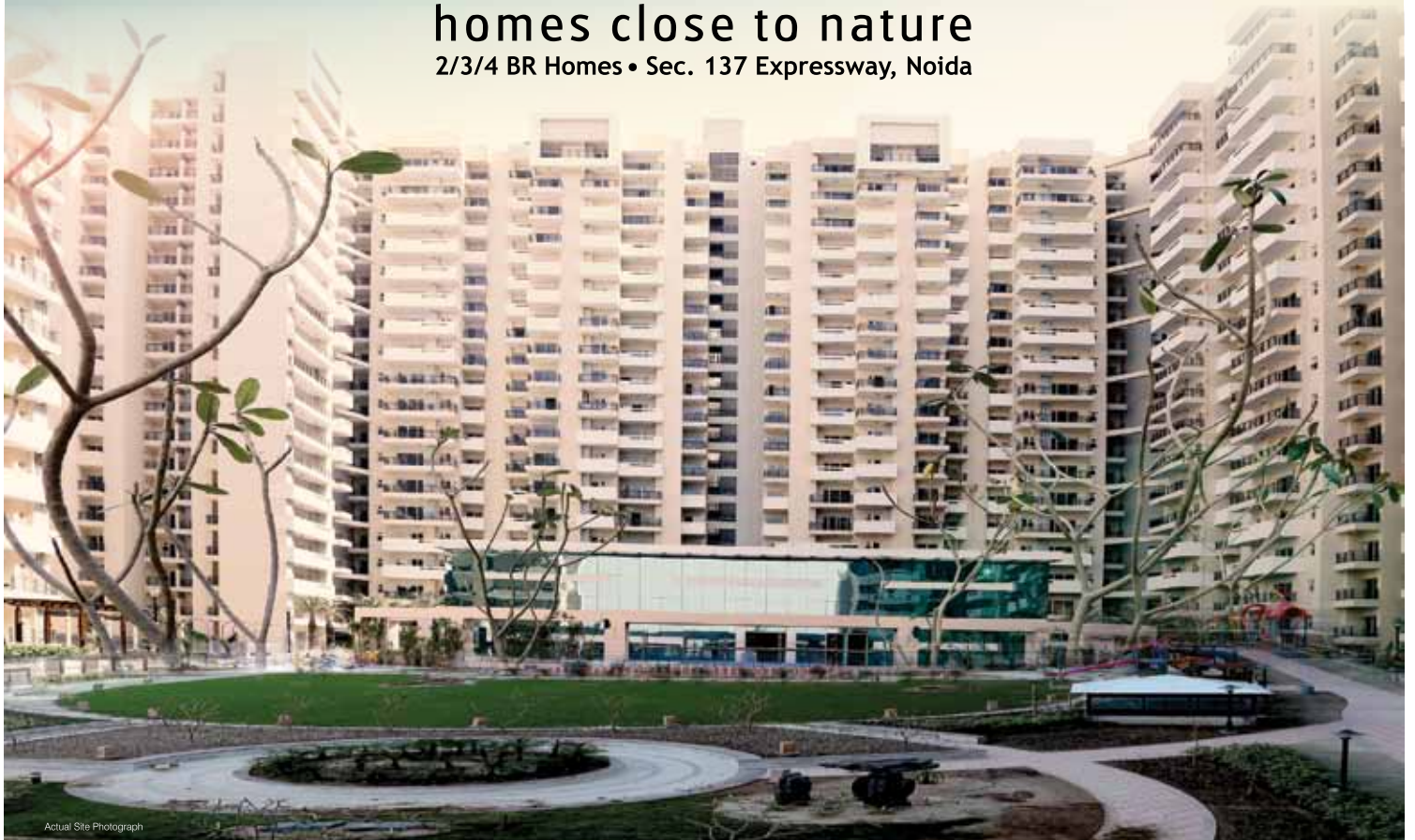


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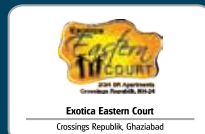
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