



# NOIDA - A CORRIDOR OF MATCHLESS OPPORTUNITY

Noida have been developed into vast, beautiful urban spaces. Inspired by the visionary guidance of Shri Akhilesh Yadav, Hon'ble Chief Minister of Uttar Pradesh, they have emerging as a global entity incorporating state-of-the-art infrastructure and excellent civic amenities. The biggest advantage in the development of this area is its strategic location. With excellent roads and expressway, Delhi is simply minutes away from Noida. Extending its convenience with comfort and speed, Noida's Metro, already linked to the national capital, is poised to extend to Greater Noida on one side and up to IGI Airport, Delhi, on the other.



## Expanding Metro Rail comfort and convenience

- A special purpose vehicle (SPV), Noida Metro Rail Corporation Ltd. (NMRC) has been formed on 05.11.2014 to plan, build, undertake, operate and carry on the business of mass rapid transport system in Gautam Buddh Nagar. The first Metro corridor taken up by NMRC is the 29.164 km stretch between Noida (Sector-71, 72) and Greater Noida. It will have 21 stations and a depot station at Greater Noida. Approx cost Rs. 5194 crore.
- Another new 6.675 km Metro line with six stations will connect Sector-62 (NH 24) with the Noida City Centre. Approx cost Rs. 1880 crore.
- A 3.962 km Metro line from Botanic Garden to Kalindi Kunj will provide excellent connectivity with Indira Gandhi International Airport, Delhi. Approx cost Rs. 845 crore.
- A 10.922 km line from Okhla Bird Sanctuary to Sector-142, Noida, and a 14.958 km line from Sector-71, Noida to Knowledge Park-V, Greater Noida is proposed.



## Abundant public and sports facilities in Noida

- The super-speciality hospital under construction in Sector 30 is being developed upgraded into a 300-bed super-speciality children's hospital and post-graduate institute. Approx cost of Rs 701 crore.
- Construction of the multi-speciality District Hospital with 200 beds in Sector 39 on a plot of 14000 sqmt. has commenced. Approx cost Rs 225 crore.
- Construction of Balika Inter College, village Hoshiarpur, in Sector 51 on a plot of 8,304 sqmt. has commenced. Approx cost Rs 11.56 crore.
- Construction of Nari Niketan in Sector 34 is nearing completion. Approx cost Rs 4.21 crore.
- In existing Sector 21A stadium, an additional 20,000-capacity cricket stadium is under construction. Approx cost of Rs 62.81 crore.
- The Sector 21A stadium will also have an indoor 4,000-seat stadium to be built at an approx cost of Rs 67 crore and a shooting range at an approx cost of Rs 14 crore.
- A mini-stadium is being constructed in village Sarfabad. Approx cost of Rs 34 crore.
- NOIDA's Horticulture Department, with support from the sector residents' welfare associations, proposes to start open-air gyms in the various block parks with 17 kinds of fitness equipment for the benefit of all residents ranging from the elderly to the youth.



## Overall development

- Construction of 2000 residential flats of type-1 & 2 in Sectors 117, 118 and 122 under the Samajwadi Awas Yojna. Approx cost Rs 160 cr.
- Multi-level car parking for 3,085 cars is under construction in Sector 18 at a cost of Rs 168.35 crore.
- Another multi-storey parking facility for 8,000 cars is proposed for Sector 38A Metro Station at Botanic Garden above which will be a commercial centre at a cost of Rs 750 crore.
- A Bus Terminal is proposed in Sector 82, Noida. Approx cost Rs 171 crore.
- A Traffic Park is also being planned in Sector 108 on eight acres. Approx cost Rs 34.71 cr.
- Eco-friendly cycle corridors will be built on main roads. About 50 km long. Approx cost Rs 4,900 lakh.
- Bunkar Bhavan and Shilp Haat is proposed to be constructed on 10 acres of land in Sector 33A, as the city's one-stop craft and cuisine hub.
- The main NOIDA administrative building to be built in Sector 96. Approx cost Rs 478 crore.
- An additional Ganga water project with a capacity of 37.50 cusec. Approx cost Rs 240 cr.



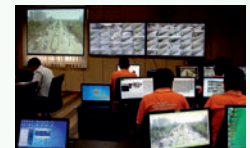
## Ensuring smooth traffic flow

- Construction of roadway on Yamuna Marginal Bandh (11.20 km). Approx cost Rs 138.85 cr.
- A six-lane bridge on the Yamuna River near Okhla Barrage is being constructed, parallel to the existing one at Kalindi Kunj. Approx cost Rs 143 crore.
- Bridges will be constructed on FNG Marg on Yamuna River between Sectors 149 and 150. Approx cost Rs 125 crore.
- Construction of 6 Bridges on Irrigation Drain. Approx cost Rs 87.82 crore.
- A 4.8-km, six-lane elevated road is being built from Vishwa Bharti Public School to Shopprix Mall. Approx cost Rs 415 crore
- For the convenience of pedestrians, 2 km of elevated corridor is being constructed from Botanic Garden Metro Station to Sector 18. Approx cost Rs 58 crore.
- Construction of underpasses at the crossing of Sectors 32, 35, 39 and 51 nearing completion. Approx cost Rs 58.02 crore.
- The construction of an underpass at the T-junction of Sectors 94 and 95 has commenced. Approx cost Rs 40.72 crore.
- Construction has commenced of a clover-leaf and underpass at the T-junction of Sectors 62 and 63 at National Highway 24. Approx cost Rs 104 crore.
- For the convenience of pedestrians, construction of 10 foot-overbridges completed on various main roads. Approx cost Rs 15.52 crore.
- An inter-city bus service between Noida and Greater Noida will be operated initially with 100 buses. In addition to a bus terminal on 5 acres in Sector 82, 242 bus shelters are also planned. A single smart card will be available to commuters for use on the buses, Metro and parking.



## Safeguarding public interests

- For increased security and patrolling, Noida police have been reinforced with 23 new Toyota Innova PCR vehicles at a cost of Rs 2.5 crore. Each SUV will have one woman constable.
- Establishment of Highway Traffic Management System (HTMS) on Noida-Greater Noida Expressway for safety & convenience of commuters at a cost of Rs 43.78 crore, and a building for an HTMS Command Control Centre at Sec 94 near Mahamaya Flyover at a cost of Rs 16.82 cr.
- In a first for UP, Noida Authority is getting set to create a 3D model of the city for city planning & security.



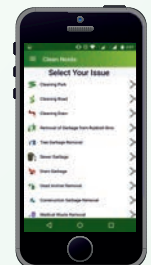
## Creating a better environment

- Ministry of Environment and Forests, Government of India, and NOIDA has established the Botanic Garden of Indian Republic on 163.79 acres in Sector 38A.
- A medicinal and herbal garden will be developed on a triangular plot of 29 acres in Sec-91 with an estimated cost of Rs 23.94 cr.
- City Park is being developed on a plot of 50 acres in Sector 117.
- Construction of an Old Age Home, Orphanage and Dada-Dadi Park at Sector 62. Estimated cost 25 cr.
- Shaheed Smarak Sthal to be constructed on 53,260 sqmt in Nalgarha village (Sector 145).
- For cleaning 6 main roads of Noida, tenders have been floated for mechanical sweeping machines.
- NOIDA is in the process of adopting the most advanced waste-to-energy (WTE) plant and the DPR has been prepared.



## 187 Citizens' Charter Services

- 187 Citizen Services are available online on [www.noidaauthorityonline.com](http://www.noidaauthorityonline.com), Grievance Redressal System on [www.noidaforcitizen.com](http://www.noidaforcitizen.com) (Mobile App) and online Jal Payments on [www.noidajalonline.com](http://www.noidajalonline.com) enabling water bills to be paid online using debit card, credit card and internet banking.
- Clean Noida Mobile App allows one to take grievances regarding various cleanliness issues to the right officials instantly, record it and get a ticket no. for future follow-up.



## New Okhla Industrial Development Authority

Administrative Building, Sector-6, Noida 201 301 (U.P.) Website: [www.noidaauthorityonline.com](http://www.noidaauthorityonline.com)

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**COVER STORY**



To bring to light the good work  
in the field of healthcare and  
related fields, national health  
magazine Double Helical hosted  
a conclave and award ceremony  
that was a huge success and left  
an indelible impression in the  
minds of all those who attended  
the event

**Celebrating  
Excellence**



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**Supporting the Elderly**



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**Revolutionary Treatment**



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**Childhood Interrupted**



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**Dr Rakesh Kumar**

Joint Secretary, Ministry of Health & Family  
Welfare, Govt of India

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**14.** Growing Threat

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**20.** Mind your Brain

**22.** Revolutionary Treatment

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Inflammation

**56.** Childhood Interrupted

# Well-deserved Honours and Recognitions

**D**ear Readers,  
Thanks a lot for supporting the Double Helical Health Conclave and National Health Awards 2016. With the recently held mega event, Double Helical has gained credibility as the voice of all stakeholders of health sector – patients, doctors, paramedical staff, and industries in the health, wellness and fitness domains and all other health services providers.

By organizing the Conclave and Awards, the magazine took the national capital by storm. Eminent professionals from the medical, social and political fields took a keen part in the day and night long definitive event of the Indian health sector.

Double Helical has always acknowledged the efforts of the doctors who play a very important role in the wellbeing of the society. They epitomize the hopes of patients. The contribution of doctors to make a difference in the society has been splendid for which we thought to do our bit by awarding them.

Double Helical is a complete national magazine on health, fitness and holistic living. Over the last one year, the magazine has gained credibility as the voice of all stakeholders from health sector. It has emerged as a credible source of news and views pertaining to all aspects of healthcare in India.

In an exclusive first-of-its-kind event, Double Helical organized the National Health Conclave and Awards 2016 in the esteemed presence of Shri K.C. Tyagi, Rajya Sabha Member of Parliament and a senior JDU leader. The ceremony was organized at the Ashok Hotel, New Delhi in the presence of stalwarts of Indian health sector, who on the day were looking no less than celebrities.

The event was organized in two phases – the first phase saw an exclusive conclave on universal healthcare and environmental pollution that witnessed participations from various experts of the subject. The day session began with Sarasvati Gaan in praise of the goddess of knowledge by school children belonging to Ambience Public School, New Delhi. The inaugural session was presided over by Dr Jayshree Mehta, President, Medical Council of India. She appreciated and encouraged the efforts of Double Helical, for organizing the event so well.

Chief guest Shri K C Tyagi, applauded and saluted the



doctors who were honoured with National Health Awards 2016 for their outstanding contribution to medical field. The National Health Awards were not only limited to the medical field, but were also extended to other fraternities.

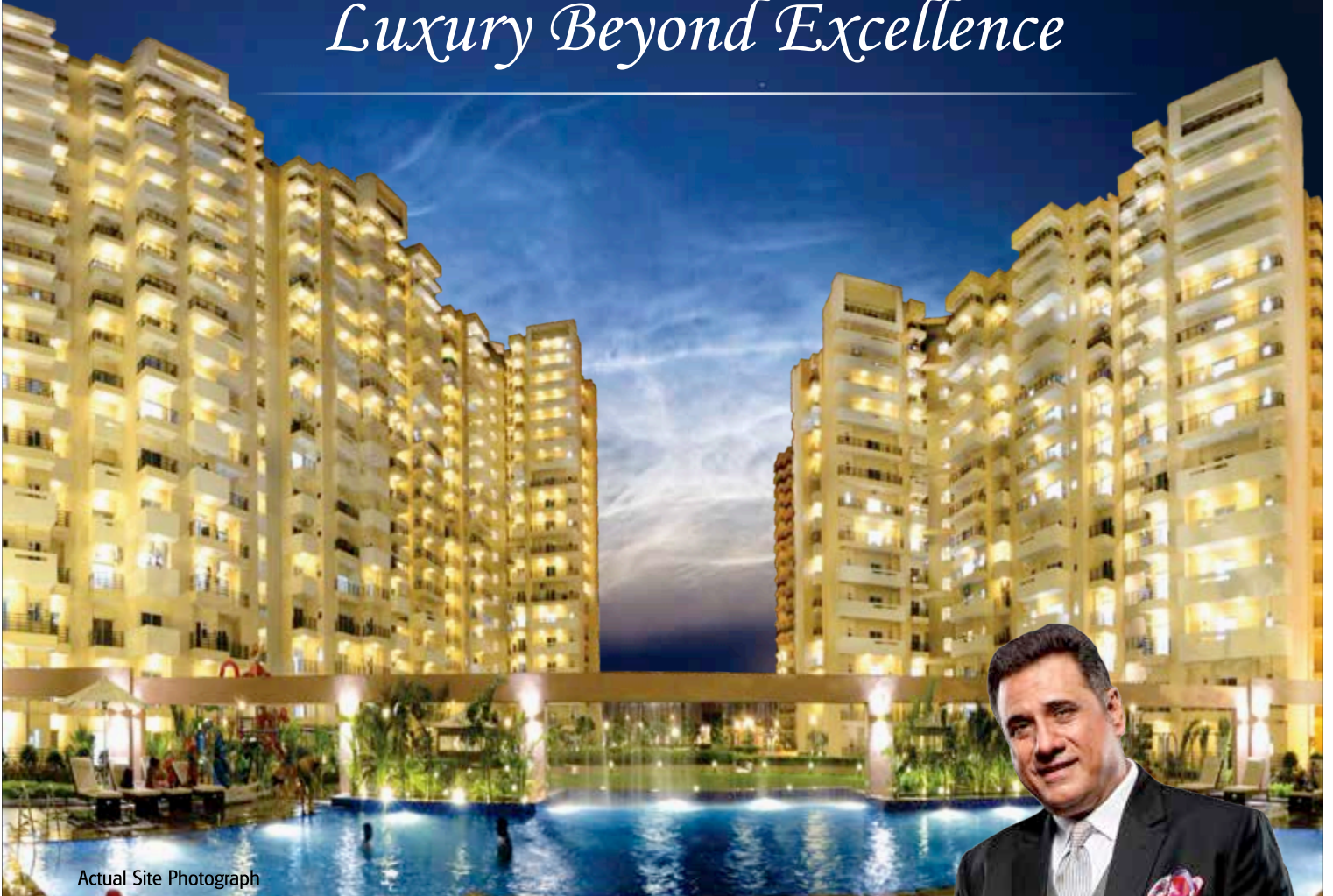
The realty players too play an important role for building quality houses and ensuring healthy living. Accordingly, the event acknowledged the efforts of several eminent developers like Ambience, Antriksh Group, Wave Group, Central Park, Raheja Developers, CHD Developers, Gulshan Homz, KV Developers, Exotica Housing and Aditya Builders.

Our special story on vascular dementia describes a wide range in this issue of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities. The after-effects can be minimized with early diagnosis and lifestyle changes. The word dementia describes a set of symptoms that can include memory loss and difficulties with thinking, problem-solving or language. In vascular dementia, these symptoms occur when the brain is damaged because of problems with the supply of blood to the brain.

There are many more of such engrossing stories in this Awards Special issue of the magazine. So, happy reading, friends!

**Amresh K Tiwary, Editor-in-Chief**

# Luxury Beyond Excellence



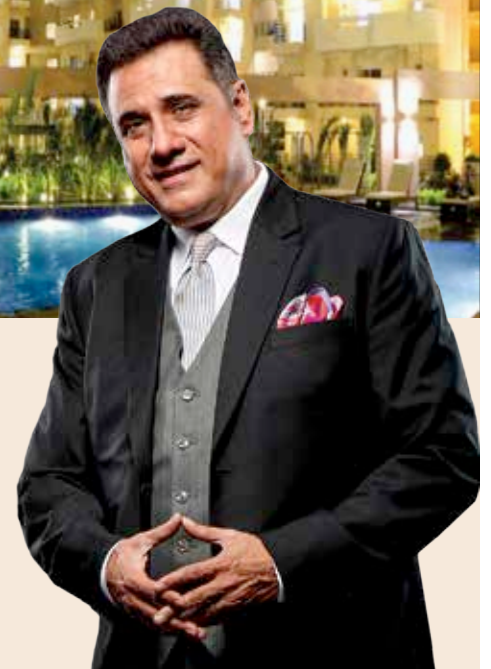
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# Supporting the Elderly

Health Ministry launches a study to formulate policies and programmes to expand the scope of health and social security policy and programmes for older population

**BY TEAM DOUBLE HELICAL**

**T**he Ministry of Health & Family Welfare (HFW) has launched the Longitudinal Ageing Study in India (LASI). Launching the project, Mr B P Sharma, Secretary (HFW) described it as the largest survey of its kind. The aim is to survey more than 60,000 elderly people over 25 years. He further added that this survey would provide scientifically validated data on various issues of the elderly.

“The importance of the study derives from the increasing portion of elderly population in the country. The study will provide valuable data on their health needs, and issues faced by them given the changing social structures, and help us to draw policy tools to address their issues,” said Mr Sharma. Terming this a very useful study, he added that the LASI will provide guidance to move forward in designing schemes for the elderly. He also informed about the Health Protection Scheme announced in the recent Budget, which has a special component of Rs 30,000 for the elderly in the family.

In her address, Dr Soumya

Swaminathan, DG, ICMR, said that there is a tremendous opportunity as this would lay the foundation for other studies on social justice issues also. She added that this it would help in designing key interventions.

Anita Agnihotri, Secretary, Social Justice and Empowerment, stated that this study would help design policies to mainstream the elderly, to reduce their vulnerabilities and enhance access to various services.

Speaking on the occasion, Dr Jagdish Prasad, Director General of Health services (DGHS), termed the study as very important as it would investigate various health structures, and impact of social determinants on

“The study provides a tremendous opportunity as it would lay the foundation for other studies on social justice issues also. This would help in designing key interventions.”

**Dr Soumya Swaminathan,**  
DG, ICMR



health of the elderly. It will also help in framing evidence-based policy. Also present at the event were Dr Arun Panda, Additional Secretary (Health), Dr F Ram, Director, IIPS, Mumbai and representatives from UNDP, T H Chan, School of Public Health, Harvard University of California and IIPS Mumbai.


LASI is the largest study on older population in the country. The International Institute for Population Sciences (IIPS), Mumbai in collaboration with Harvard School of Public Health (HSPH) and University of Southern California (USC), USA is undertaking the “The Longitudinal Ageing Study in India” under the aegis of the Ministry of Union Health and Family Welfare. LASI is jointly funded by the Union Ministry of Health and



“This study would help design policies to mainstream the elderly, to reduce their vulnerabilities and enhance access to various services.”

**Anita Agnihotri, Secretary,**  
Social Justice and  
Empowerment

structure, including an upward trend in life expectancy. An Indian born in 1950 could expect to live for 37 years, whereas today India's life expectancy at birth nearly doubled to 68 years. By 2050, it is projected to increase to 76 years. As a result, India's population will rise from 1.3 billion today to an estimated 1.7 billion by 2050, with a much larger elderly share of around 340 million. Including the pre-retirement phase (i.e., population age 45+), the proportion will rise to over 30%, or almost 600 million persons. Between 2011 and 2050, the number of oldest old people of age 75 and above is expected to increase by 340%.

As no sufficiently broad nationally representative dataset on older population is currently available in India, comprehensive new scientific data are needed to conduct analyses of health, economic and social challenges based on population ageing and to formulate mid- and long-term policies and programmes to address these and other challenges presented by population ageing. LASI will contribute greatly to the newly launched the National Programme for Health Care for the Elderly (NPHCE) and the social and economic security programmes planned to be initiated by the Ministry of Social Justice and Empowerment (MoSJE). LASI will help in expanding the scope of health and social security policy and programmes for older population 

Family Welfare, the United States' National Institute on Ageing, and the United Nations Population Fund-India.

Population ageing is taking place in nearly all the countries of the world. The global share of older people aged 60 years or over increased from 9.2 percent in 1990 to 11.7 percent in 2013 and will continue to grow as a proportion of the world population, reaching 21.1 percent by 2050. Presently, about two thirds of the world's older persons live in developing countries. By 2050, nearly 8 in 10 of the world's older population will live in the less developed regions.

While global ageing can be seen as a symbol of medical, social, and economic advances and also has major health, social and economic consequences over the past half

century, it also represents a significant policy challenge. Population ageing threatens to topple existing insurance and pension systems and create health system overload; therefore calls for review of existing models of healthcare, familial and social support. The phenomenon of global population ageing has the potential to fundamentally alter disease burdens, economies and trade, and human migration.

According to the 2011 census, the 60+ population accounted for 8.6% of India's total population or 103.84 million elderly. With currently 1.3 billion people, India is projected to become the world's most populous country within a decade. There are several forces driving India's population growth and changing age



## “Mission Indradhanush is a unique vaccination program to protect children against life-threatening diseases”

The Union government’s mega project Mission Indradhanush aims at providing immunization against life-threatening diseases such as diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B, meningitis and pneumonia due to haemophilus influenza type B, at a large scale. But is the Mission successful in achieving its target of universal immunization?

**Dr Rakesh Kumar**, Joint Secretary, Ministry of Health and Family Welfare, Govt of India spoke at length to **Amresh Kumar Tiwary**, Editor-in-Chief, Double Helical about this extraordinary programme. Excerpts of the interview...

### **What exactly is Mission Indradhanush?**

The Ministry of Health and Family Welfare, Govt. of India launched Mission Indradhanush on 25 December 2014 as a special drive to vaccinate all partially vaccinated or unvaccinated children under Universal Immunization Programme. The mission focuses on

interventions to improve full immunization coverage in India from 65% in 2014 to at least 90% children in the next five years. Mission Indradhanush is providing immunization against life-threatening diseases (diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B, meningitis and pneumonia

due to haemophilus influenza type B). In addition, vaccination against Japanese Encephalitis is also being provided in selected endemic districts of the country.

**Could you tell us why Mission Indradhanush is needed to be implemented at such a large**



**scale?**

Basically, the Universal Immunization Programme has been operational in India since 1978 and is expected to provide vaccines to 2.7 crore children annually. But, despite being operational for the past more than 30 years, only 65% children in India receive all vaccines during their first year of life. The coverage has increased by only 4% in the last 4 years i.e. at the rate of 1% per year. We target to increase this coverage by 4% every year.

**But isn't there a lack of awareness about such mega project, despite all the efforts being made by the government of India?**

Oh yes, recent estimates show that, annually, nearly 89 lakh children in the country do not receive all vaccines that are available under the universal immunization programme - this is the highest number of unvaccinated children in any country in the world. Of these 89 lakh children, nearly 17 lakh do not receive any vaccination while 72 lakh receive some but not all vaccinations that are provided under the programme, despite the fact that these vaccinations are available free of cost. These unvaccinated or partially vaccinated children are most susceptible to childhood diseases, disability and run 3-6 times higher risk of death as compared to fully immunized children.

Evaluations have indicated that the major reasons for all children not receiving the vaccines are lack of awareness amongst the parents about the benefits of vaccination, a fear of some side effects of the vaccines and sometimes non-availability of vaccines or vaccinators during vaccination sessions.

**What is the present stage of Mission Indradhanush? How is it being implemented?**

The focus was on 201 high focus districts with largest number of partially vaccinated and unvaccinated children during the first phase. These districts account for nearly 50% of the total

## MISSION INDRADHANUSH COVERAGE REPORT

(As on 15th February 2016) (Figures in lakhs)

S. No	INDICATOR	PHASE 1	PHASE 2	TOTAL
1	NO. OF SESSIONS HELD	9.6	10.4	20
2	NO. OF ANTIGEN ADMINISTERED	191.9	159.6	351.5
3	NO. OF PREGNANT WOMEN IMMUNIZED	21.1	15.6	36.7
4	NO. OF PREGNANT WOMEN COMPLETELY IMMUNIZED	11.2	8.3	19.5
5	NO. OF CHILDREN IMMUNIZED	76.8	65.5	142.3
6	NO. OF CHILDREN FULLY IMMUNIZED	20.2	17.2	37.4
7	NO. OF VIT A DOSES ADMINISTERED	20.5	19.2	39.7
8	NO. OF ORS PACKETS DISTRIBUTED	17.1	12.8	29.9
9	NO. OF ZINC TABLETS DISTRIBUTED	57.3	39.7	97

\*THE REPORT IS PROVISIONAL.

unvaccinated or partially unvaccinated children in the country. During Phase 2 the focus was on selected 352 districts.

Across the country (73 repeated districts of Phase-1). Under this Mission, the following areas were targeted for focused interventions –

Areas with vacant sub-centers: No auxiliary nurse midwife (ANM) posted for more than three months. Villages/ areas with three or more consecutive missed routine immunization (RI) sessions: ANMs on long leave or other similar reasons. High risk areas (HRAs) identified by the polio eradication programme. These include populations living in areas such as urban slums with migration, nomadic sites, brick kilns, construction sites, other migrant settlements (fisherman villages, riverine areas with shifting populations), underserved and hard to reach populations (forested and tribal populations, hilly areas etc.). Areas with low RI coverage, identified through measles outbreaks, cases of diphtheria and neonatal tetanus in last two years. Small villages, hamlets, dhanis, purbas, basas (field huts), etc., clubbed with another village for RI sessions and not having independent RI sessions.

**How would you rate the success of Mission Indradhanush?**

We have done meticulous planning of campaigns/sessions at all levels using polio learning. Effective communication and social mobilization efforts have been carried out. There has been intensive training of the health officials and frontline workers, coupled with establishing accountability framework through task forces at district, state and national level to oversee the program implementation. Under this Mission, the government is ensuring that vaccines are made available for all children, even in the remotest corner of the country.

**How is this mission tackling life-threatening diseases?**

Four special intensified immunization drives are being conducted on the 7th of every month, starting from April 2015 covering all children less than two years of age and pregnant women for tetanus toxoid vaccine. Four special intensified immunization drives are being conducted, for these groups.

**What is the nation-wide progress of this Mission?**

As per the data available, during both the phases of Mission Indradhanush, 20 lakh sessions were held, during which 3.56 crore vaccines were administered to the children and pregnant women. During these immunization rounds 1.42



List of 201 High Focus Districts

SNO	STATE	SNO	DISTRICT	SNO	DISTRICT		
1	ANDHRA PRADESH	1	EAST GODAVARI	2	GUNTUR		
		3	KRISHNA	4	KURNOOL		
		5	VISAKHAPATNAM				
2	ARUNACHAL PRADESH	1	CHANGLONG	2	EAST KAMENG		
		3	EAST SIANG	4	LOHIT		
		5	UPPER SIANG				
3	ASSAM	1	BONGAIGAON	2	DARRANG		
		3	DHUBRI	4	GOALPARA		
		5	HAILAKANDI	6	KARIMGANJ		
		7	KOKRAJHAR	8	NAGAON		
4	BIHAR	1	ARARIA	2	BEGUSARAI		
		3	CHAMPARAN EAST	4	CHAMPARAN WEST		
		5	DARBHANGA	6	GAYA		
		7	JAMUI	8	KATIHAHAR		
		9	KISHANGANJ	10	MUZAFFARPUR		
5	CHHATTISGARH	1	BALODABAZAAR	2	BIJAAPUR		
		3	BHATAPARA				
		5	BILASPUR	4	DANTEWADA		
		7	JASHPUR	6	KORBA		
6	DELHI	1	NORTH-EAST	2	NORTH-WEST		
		3	BAHASKANTHA	4	DAHOD		
		5	DANGS	6	KUTCH		
7	GUJARAT	1	AHMEDABAD	2	AHMEDABAD CORPN.		
		3	BANASKANTHA	4	DAHOD		
		5	DANGS	6	KUTCH		
		7	PANCHMAHALS	8	SABARKANTHA		
8	HARYANA	1	FARIDABAD	2	GURGAON		
		3	MEWAT	4	PALWAL		
		5	PANIPAT				
9	JAMMU & KASHMIR	1	DODA	2	KISHTWAR		
		3	PUNCH	4	RAJAURI		
		5	RAMBAN				
10	JHARKHAND	1	DEOGHAR	2	DHANBAD		
		3	GIRIDIH	4	GODDA		
		5	PAKUR	6	SAHIBGANJ		
11	KARNATAKA	1	BANGALORE (U)	2	BELLARY		
		3	GULBARGA	4	KOPPAL		
		5	RAICHUR	6	YADGIR		
12	KERALA	1	KASARAGOD	2	MALAPPURAM		
		1	ALIRAJAPUR	2	ANUPPUR		
		3	CHHATARPUR	4	DAMOH		
		5	JHABUA	6	MANDLA		
		7	PANNA	8	RAISEN		
		9	REWA	10	SAGAR		
		11	SATANA	12	SHADOL		
		13	TIKAMGARH	14	UMARIYA		
		15	VIDISHA				
		1	BEED	2	DHULE		
		3	HINGOLI	4	JALGAON		
		5	NANDED	6	NASIK		
		7	THANE				
		14	MAHARASHTRA	1	CHURACHANDPUR	2	SENAPATI
				3	TAMENGLONG	4	UKHRUL

SNO	STATE	SNO	DISTRICT	SNO	DISTRICT
16	MEGHALAYA	1	EAST KHASI HILL	2	WEST GARO HILLS
		3	WEST KHASI HILL		
17	MIZORAM	1	LAWNGTLAI	2	LUNGLEI
		3	MAMIT	4	SAIHA
18	NAGALAND	1	DIMAPUR	2	KIPHIRE
		3	KOHIMA	4	MON
		5	TUENSANG	6	WOKHA
19	ODISHA	1	BOUDH	2	GAJAPATI
		3	GANJAM	4	KANDHAMAL
		5	KHURDA	6	KORAPUT
		7	MALAKANGIRI	8	NABARANGPUR
		9	NUAPADA	10	RAYAGADA
20	PONDICHERRY	1	YANAM		
21	PUNJAB	1	GURDASPUR	2	LUDHIANA
		3	MUKTSAR	4	PATHANKOT*
22	RAJASTHAN	1	ALWAR	2	BARMER
		3	BUNDI	4	DHAULPUR
		5	JAIPUR	6	JODHPUR
		7	KARAULI	8	SAWAI MADHOPUR
		9	TONK		
23	TAMIL NADU	1	COIMBATORE	2	KANCHEEPURAM
		3	MADURAI	4	THIRUVALLUR
		5	TIRUCHIRAPALLI	6	TIRUNELVELI
		7	VELLORE	8	VIRUDHUNAGER
24	TELANGANA	1	ADILABAD	2	MAHBUBNAGAR
		1	DHALAI	2	TRIPURA NORTH
25	TRIPURA	1	DHALAI	2	TRIPURA NORTH
		3	TRIPURA WEST		
26	UTTAR PRADESH	1	AGRA	2	ALIGARH
		3	ALLAHABAD	4	AMETHI
		5	AMROHA	6	AURAIYA
		7	AZAMGARH	8	BADAUN
		9	BADOHI	10	BAHRAICH
		11	BALRAMPUR	12	BANDA
		13	BARABANKI	14	BAREILLY
		15	BULANDSHAHAH	16	CHITRAKOOT
		17	ETAH	18	ETAWAH
		19	FARRUKHABAD	20	FEROZABAD
		21	GHAZIABAD	22	GONDA
		23	HAPUR	24	HARDOI
		25	HATHRAS	26	KANNAUJ
		27	KASGANJ	28	KAUSHAMBI
		29	KHERI	30	MAINPURI
		31	MATHURA	32	MEERUT
		33	MIRZAPUR	34	MORADABAD
		35	MUZAFFARNAGAR	36	PILIBHIT
		37	SAMBHAL	38	SHAHJAHANPUR
		39	SHAMLI	40	SIDDHARTHANAGAR
41	SITAPUR	42	SONBHADRA		
43	SRAWASTI	44	SULTANPUR		
27	UTTARAKHAND	1	HARDWAR		
28	WEST BENGAL	1	24-PARGANAS NORTH	2	24-PARGANAS SOUTH
		3	BARDHAMAN	4	BIRBHUM
		5	MURSHIDABAD	6	UTTAR DINAJPUR

List of Phase 1 districts included in Phase 2 (73 districts)

S.No	STATE	S.No	DISTRICT	S.No	DISTRICT
1.	ANDHRA PRADESH	1.	VISAKHAPATNAM	2.	KURNOOL
2.	ARUNACHAL PRADESH	1	CHANGLONG	2	EAST KAMENG
		3	EAST SIANG	4	LOHIT
		5	UPPER SIANG		
3.	ASSAM	1	BONGAIGAON	2	DARRANG
		3	DHUBRI	4	GOALPARA
		5	HAILAKANDI	6	KARIMGANJ
		7	KOKRAJHAR	8	NAGAON
4.	GUJARAT	1	DANGS	2.	VALSAD
		3	KUTCH	4.	DAHOD
5.	HARYANA	1	MEWAT	2.	GURGAON
		3	PANIPAT		
6.	JHARKHAND	1	DHANBAD	2.	PAKUR
		3	SAHIBGANJ		
7.	KARNATAKA	1	YADGIR		
8.	MADHYA PRADESH	1	UMARIYA	2.	SATANA
9.	MAHARASHTRA	1	THANE	2.	NASIK
10.	MANIPUR	1	CHURACHANDPUR	2	SENAPATI
		3	TAMENGLONG	4	UKHRUL
11.	MEGHALAYA	1	EAST KHASI HILL	2	WEST GARO HILLS
		3	WEST KHASI HILL		

S.No	STATE	S.No	DISTRICT	S.No	DISTRICT
12	MIZORAM	1	LAWNGTLAI	2	LUNGLEI
		3	MAMIT	4	SAIHA
13	NAGALAND	1	DIMAPUR	2	KIPHIRE
		3	KOHIMA	4	MON
		5	TUENSANG	6	WOKHA
14	TRIPURA	1	DHALAI	2	TRIPURA NORTH
		3	TRIPURA WEST		
15	PUNJAB	1	LUDHIANA		
16	TAMIL NADU	1	COIMBATORE	2.	VIRUDHUNAGER
		3	TIRUNELVELI		
17.	UTTAR PRADESH	1	HATHRAS	2.	BULANDSHAHAH
		3	GHAZIABAD	4.	AGRA
		5	HAPUR	6.	KASGANJ
		7	SAMBHAL	8.	SHAHJAHANPUR
		9	ETAWAH	10.	MATHURA
		11	PILIBHIT	12.	CHITRAKOOT
		13	BADAUN	14.	ALIGARH
		15	KANNAUJ	16.	MEERUT
18.	WEST BENGAL	1	MUZAFFARNAGAR	18.	AURAIYA


## List of 279 Medium Focus Districts of Phase 2 of Mission Indradhanush

S.No	STATE/UT	S.No	DISTRICTS	S.No	DISTRICTS	S.No	DISTRICTS	S.No	DISTRICTS	S.No	DISTRICTS
1	A&N ISLANDS	1	NICOBAR	2	NORTH & MIDDLE ANDAMAN						
2	ANDHRA PRADESH	1	ANANTPUR	2	CHITTOOR	3	CUDDAPAH	4	NELLORE	5	SRIKAKULAM
		7	VIZIANAGARAM	8	WEST GODAVARI						
3	ARUNACHAL PRADESH	1	ANJAW	2	DIBANG VALLEY	3	KURUNG KUMEY	4	LONGDING	5	PAPUMPARE
		7	TOWANG	8	UPPER SUBANSIRI	9	WEST KAMENG	10	WEST SIANG		
4	ASSAM	1	BAKSA	2	BARPETA	3	CACHAR	4	CHIRANG	5	DHEMAJI
		7	DIMA HASAO	8	GOLAGHAT	9	JORHAT	10	KAMRUP	11	KAMRUP (M)
		13	MARIGUAN	14	NALBARI	15	SIBSAGAR	16	SONITPUR	17	TINSUKHIA
5	CHANDIGARH	1	CHANDIGARH								
6	CHHATTISGARH	1	BALRAAMPUR	2	DURG	3	GARIYABAND	4	JANJIGIR CHAMPA	5	KAWARDHA
		7	MUNGELI	8	RATGARH	9	RAJNANDGAON	10	SUKMA	11	SURAJPUR
7	D&N HAVELI	1	D&N HAVELI								
8	DAMAN & DIU	1	DAMAN								
9	DELHI	1	EAST	2	NORTH	3	SHAHNARA	4	SOUTH	5	SOUTH-EAST
10	GOA	1	SOUTH GOA								
		1	AMRELI	2	BHARUCH	3	BHAVNAGAR	4	BHAVNAGAR CORP.	5	JAMNAGAR
		7	JUNAGADH	8	KHEDA	9	RAJKOT	10	SURAT	11	SURAT CORP.
		13	VADODARA	14	VADODARA CORP.						
12	HARYANA	1	BHIWANI	2	HISAR	3	JHAJJAR	4	KARNAL	5	KURUKSHETRA
		7	REWARI	8	ROHTAK	9	SIRSA	10	SONEPAT	11	YAMUNANAGAR
13	HIMACHAL PRADESH	1	KANGRA	2	KULLU	3	MANDI	4	SIRMUR	5	SOLAN
14	JAMMU & KASHMIR	1	ANANTNAG	2	BANDIPORA	3	BARAMULA	4	JAMMU	5	KULGAM
		7	CHATHRA	8	GARHWA	9	HAZARIBAGH	10	KODERMA	11	LATEHAR
		13	RANCHI	14	PALAMU						
15	JHARKHAND	1	BAGALKOT	2	BELGAUM	3	BIDAR	4	BIJAPUR	5	CHICKABALLAPUR
		7	DHARWAD	8	GADAG	9	HAVERI	10	RAMANAGARA	11	UDUPI
17	KERALA	1	ERNAKULAM	2	KANNUR	3	KOLLAM	4	KOTTAYAM	5	KOZHIKODE
		7	THRISSUR								
18	MADHYA PRADESH	1	ASHOKNAGAR	2	BARWANI	3	BETUL	4	BHIND	5	BURHANPUR
		7	DATIA	8	DHAR	9	DINDORI	10	GUNA	11	HARDA
		13	JABALPUR	14	KATNI	15	KHANDWA	16	KHARGONE	17	MANDSAUR
		19	SEONI	20	SHEOPUR	21	SHIVPURI	22	SIDHI	23	SINGRAULI
19	MAHARASHTRA	1	AHMEDNAGAR	2	AKOLA	3	BHANDARA	4	BULDHANA	5	GADCHIROLI
		7	GR. MUMBAI	8	KOLHAPUR	9	LATUR	10	NAGPUR	11	NANDURBAR
		13	PARBHANI	14	PUNE	15	SANGLI	16	SOLAPUR	17	WARDHA
		19	YAVATMAL								
20	MANIPUR	1	BISHNUPUR	2	CHANDEL	3	EAST IMPHAL	4	THOUBAL		
21	MEGHALAYA	1	EAST GARO HILLS	2	JAINTIA HILLS	3	RI-BHOI	4	SOUTH GARO HILLS		
22	MIZORAM	1	AIZAWAL EAST	2	AIZAWAL WEST	3	SERCHHIP				
23	NAGALAND	1	LONGLENG	2	MOKOK CHUNG	3	PEREN	4	PHEK	5	ZUNHEBOTO
24	ODISHA	1	BARGARH	2	BHADRAK	3	BOLANGIR	4	CUTTACK	5	DHENKANAL
		7	KALAHANDI	8	KEONJHAR	9	MAYURBHANJ	10	NAYAGARH	11	PURI
		13	SONEPUR								
25	PUDUCHERRY	1	MAHE	2	PUDUCHERRY						
		4	AMRITSAR	5	BHATINDA	6	FARIDKOT	7	FEROZEPUR	8	HOSHARPUR
		10	MANSI	11	MOGA	12	JALANDHAR	13	PATIALA	14	SANGRUR
26	PUNJAB										
27	RAJASTHAN	1	AJMER	2	BHARATPUR	3	BHILWARA	4	BIKANER	5	CHITTAURGARH
		7	JAISALMER	8	JALOR	9	DAUSA	10	NAGOUR	11	PALI
		13	RAJSAMAND	14	SIROHI	15	UDAIPIUR				
28	SIKKIM	1	EAST DISTRICT	2	NORTH DISTRICT						
29	TAMIL NADU	1	ARIYALUR	2	CHENNAI	3	CUDDALORE	4	DHARMAPURI	5	DINDIGUL
		7	KANYAKUMARI	8	NAGAPATTINAM	9	ERODE	10	PUDUKOTTAI	11	SALEM
		13	THANJAVUR	14	THIRUVANNAMALAI	15	PERAMBALUR	16	TIRUPPUR	17	TUTICORIN
		19	HYDERABAD	20	KARIMNAGAR	21	THIRUVARUR	22	VILLUPURAM	23	VILLUPURAM
30	TELANGANA	1	HYDERABAD	2	KARIMNAGAR	3	KHAMMAM	4	MEDAK	5	NALGONDA
		7	RANGAREDDY								
31	TRIPURA	1	GOMATI	2	KHOWAI	3	SEPAHJALA	4	TRIPURA SOUTH	5	UNAKOTI
		7	BAGHPAT	8	BIJNOR	9	FATEHPUR	10	GAUTAM BUDH NAGAR	11	GHAZIPIUR
		13	HAMIRPUR	14	JALAINAGAR	15	GORAKHPUR	16	KANPUR NAGAR	17	KUSHINAGAR
		19	MAHARAJGANJ	20	MAU	21	JALNPUR	22	RAMPUR	23	SAHARANPUR
		27	DEHRADUN	28	TEHRI GARHWAL	29	LALITPUR	30	UTTAR KASHI	31	RAEBARELI
		33	HOWRAH	34	KOLKATA PURBA	35	SANT KABIR NAGAR	36	PASCHIM MEDINIPUR	37	SAHARANPUR
		41	DEHRADUN	42	TEHRI GARHWAL	43	UDHAMSINGH NAGAR	44	UTTAR KASHI	45	MAALDAH
		47	HOWRAH	48	KOLKATA PURBA	49	MALDAH	50	PASCHIM MEDINIPUR	51	MEDINIPUR

Bihar &amp; Lakshadweep not part of phase 2 Mission Indradhanush.

crore children were vaccinated and more than 37 lakh children were fully vaccinated. Also, about 37 lakh pregnant women were vaccinated with tetanus toxoid vaccine during these four rounds. Via Mission Indradhanush, the aim is to reach out to the areas where we have yet not been able to fully vaccinate all the

children. These are also the areas where basic health facilities have not yet reached to the children. By vaccinating the children, we may be able to protect them against the vaccine preventable diseases but the same child may die of diarrhea due to lack of health facilities. To combat this problem, zinc tablets and

ORS packets were freely distributed to all the children to protect them against diarrhea. About 30 lakh ORS packets and 97 lakh zinc tablets were distributed to the children during these four rounds of Mission Indradhanush. Also, about 40 lakh doses of Vitamin A were administered to children. 

# Preventing **THE LOSS**

The ear awareness & screening camp, organised by the Society for Sound Hearing to commemorate the World Hearing Day 2016, went a long way in raising awareness about ear care in the community



*“Deafness is a much worse misfortune. For it means the loss of the most vital stimulus--the sound of the voice that brings language, sets thoughts astir, and keeps us in the intellectual company of man.”*  
- **Hellen Keller.**

**H**earing loss is the most prevalent sensory disability globally. The WHO estimates that over 5% of the world's population – 360 million people – has disabling hearing loss with its highest prevalence being in Asia Pacific, South Asia and Sub Saharan African regions.

It is seen that at least half of all cases of hearing loss are avoidable through primary prevention, including healthy ear care practices.

In order to raise awareness on this issue, the World Hearing Day is observed on 3rd March every year. It is an annual advocacy event. Designated at the First International Conference on Prevention and Rehabilitation of Hearing Impairment in Beijing (China) in 2007, the day aims to raise awareness and promote ear and hearing care across the world.

The 2016 theme for the day is Childhood Hearing Loss: Act Now, Here's How. This aims to draw attention to the fact that the majority

of causes which lead to hearing loss in children can be prevented through public health measures.

On the occasion of World Hearing Day 2016, an ear awareness & screening camp was organized by the Society for Sound Hearing in collaboration with Department of Community Medicine, MAMC & Medtronic at Anaganwadi Centre, Delhi Gate on 14th March 2016. In this collaborative event, the screening was carried out by community health workers from Dr Shroff's Charity Hospital who screened the beneficiaries using handheld mobile devices. The images of the ear were transferred for diagnosis to the ENT

EAR CONDITIONS	0-1	1-2	2-5	6-10	11-20	21-30	31-40	41-50	51-60
<b>CSOM</b>	1				1		1		1
<b>DIMINISHED HEARING</b>						1	1	3	7
<b>WAX IMPACTION</b>		4	7	2	7	2	2	2	5
<b>NORMAL</b>		1	3	8	4	13	8	6	4
<b>GRAND TOTAL</b>	1	5	10	10	12	16	12	11	1

specialists at Lok Nayak Hospital, New Delhi.

As part of screening program, 100 beneficiaries were screened. 57% of the people screened were females while 43% were males. The age of the patients varied from less than 1 year to over 70 years. Maximum patients belonged to the age group of 51-60 years (17%). Nearly all the beneficiaries were from Delhi Gate and nearby areas. Out of the total people screened, 53% of the people were found to have some form of ear morbidities.

One third of the total patients screened were found to have impacted wax followed by diminishing hearing (15%) and chronic suppurative otitis media (5%).

The age-wise distribution of patients as per their ear morbidities is summarized in the above Chart:

All the beneficiaries screened were counselled by the medical team of Maulana Azad Medical College, Delhi. The patients who were found to be suffering from ear problems were provided medication free of cost through Department of Community Medicine, MAMC. Twenty percent of the patients required further intervention and were referred to Department of ENT, Lok Nayak Hospital, New Delhi.

A role play was performed by the interns of MAMC to raise awareness about ear care in the community. The content of the talk included commonly encountered ear problems in children, talking about various milestones which

can help detect hearing loss in a child and various Do's and Don'ts related to ear care.

In order to spread awareness regarding ear and hearing care, a short talk was conducted. The talk was conducted in a school run by Neev, an educational project of Nav Abhiyan (A grassroots development initiative promoting self-reliance and self-esteem). The participating parents and children belonged to low socio-economic backgrounds.


Awareness talks were delivered using IEC material (Including pamphlets, posters and flipcharts both in Hindi and English) developed by Society of Sound Hearing.

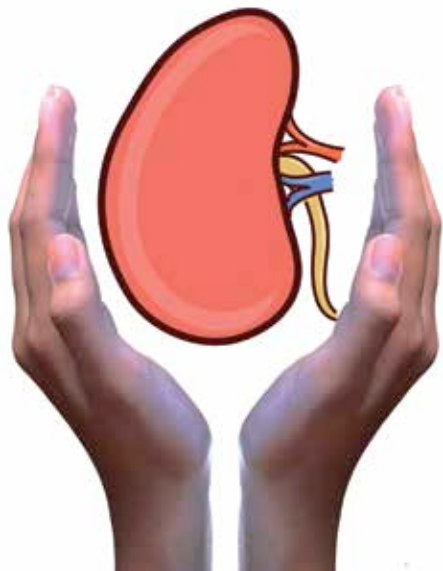
The content of the talk included commonly encountered ear problems in children, talking about various milestones which can help detect hearing loss in a child and various Do's and Don'ts related to ear care. Special mention was given to various factors that can contribute towards hearing loss in a baby and parents were also informed about significance

of early screening of children

for hearing loss.

The talk was interactive in nature where the questions were asked in the community and the discussion was done on the basis of the answers received. The community participated in the interactive talk actively and showed interest in listening and learning.

IEC material of Society of Sound Hearing was displayed in the school premises and distributed to the teachers of the school and the community members. Subsequently 25 people who reported any symptoms of ear problems were screened. The necessary medication for ear wax was provided to the patients free of cost. The patients requiring further intervention were referred to Lok Nayak Hospital. 



# Growing Threat

Chronic kidney disease (CKD) is a worldwide health crisis. But with early diagnosis and treatment, it's possible to slow or stop its progression.

**BY DR. M.D. SHARMA**

**T**here is a rising trend in the incidence of chronic kidney disease (CKD) affecting healthcare & economics of the countries. In India, the projected number of deaths due to chronic disease was around 5.21 million in 2008 and is expected to rise to 7.63 million in 2020 (66.7% of all deaths).

The world over 10% of the population is affected by CKD, and millions die each year because they do not have access to affordable treatment. Over 2 million people worldwide currently receive treatment with dialysis or a kidney transplant to stay alive, yet this number may only represent 10% of people who actually need treatment to live.

It is estimated that the number of kidney failure cases will increase disproportionately in developing countries, such as China and India, where the number of elderly people are increasing. In middle-income countries, treatment with dialysis or kidney transplantation creates a huge financial burden for the majority of the people who need it. In another 112



countries, many people cannot afford treatment at all, resulting in the death of over 1 million people annually from untreated kidney failure.

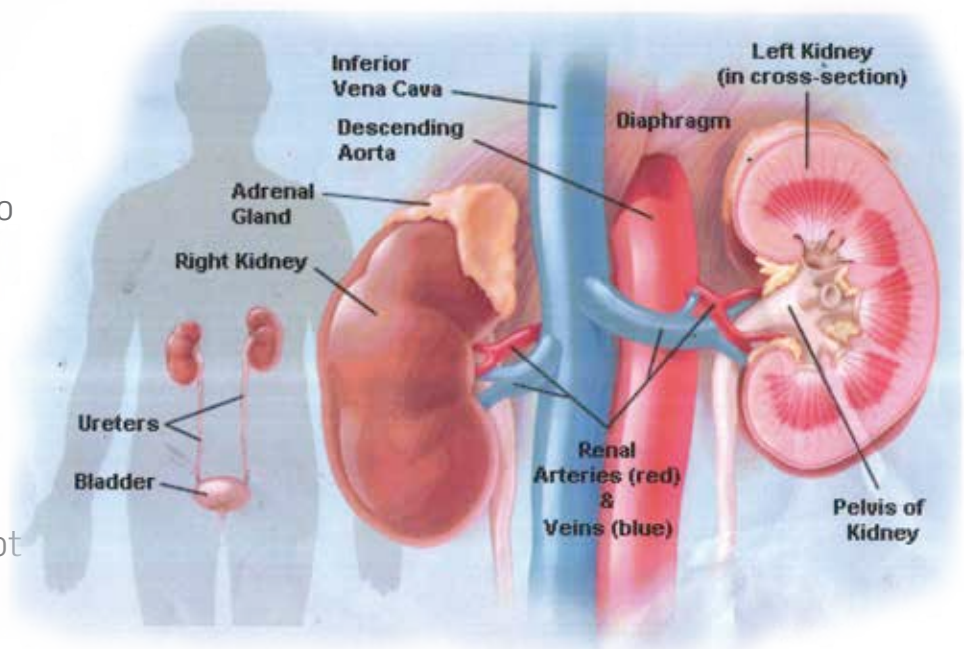
In people aged 65 through 74 worldwide, it is estimated that one in five men, and one in for women, have CKD. Non-communicable diseases (such as heart disease, diabetes, or kidney disease) have replaced communicable disease (such as influenza, malaria, or AIDS) as the most common causes of premature death worldwide: An estimated 80%

of this burden occurs in low-or middle-income countries, and 25% is in people younger than 60 years. In the year 2005, there were approximately 58 million deaths worldwide, with 35 million attributed to chronic disease, according to the World Health Organization (WHO).

In fact, the yearly incidence of End-stage Renal Disease. (ESRD) in India is approximately 150-200 pmp and diabetes is an important cause of CKD, in approximately 30-40% of the patients. Patients with CKD are more likely to die than to reach ESRD. Moreover, diabetes & hypertension both contribute to more than 60 % of CKD Prevalence. The average global prevalence values for treated ESRD (not diagnosed ESRD), dialysis and transplant patients are 280, 215 and 65 patients per million (pmp), respectively. In India, the average prevalence values for treated ESRD (not diagnosed ESRD); dialysis and transplant patients are 70, 60 and 10 pmp, respectively.

This number is increasing globally at a rate of 7% every year. It is estimated that only 10-20% of ESRD patients in

The current dependence on the private sector for treatment of kidney patients with severe renal disease needs to be reduced with infrastructure upgradation in government run hospitals to facilitate accessibility of treatment for the majority of our population who cannot afford treatment in private hospitals




India continue long-term RRT. It is estimated that in India, there are 3,500 new renal transplant+3,000 new continuous ambulatory peritoneal dialysis (CAPD) initiation+ 15,000 new maintenance hemodialysis (MHD) patients every year.

With early diagnosis and treatment, it's possible to slow or stop the progression of kidney disease. We are the cheapest in the world to give CKD treatment but not all can afford. More than 20 cores people living below poverty line spend Rs 20,000 to 30,000 per month on dialysis in private sectors and 9000 to 10000 per month in public sector hospitals; it is a huge burden on patients and the system.

Moreover, the number of qualified

nephrologists in India is approximately 1000 and with 700 dialysis centres and only 170 transplant centres available it is an alarming picture to manage ESRD. Early detecting of CKD by screening for kidney disease in high-risk patients, early referral to nephrologist, appropriate treatment of hypertension, diabetes and other risk factors, lifestyle modification with specific emphasis on reduction in salt intake, physical exercise, abstinence from smoking, will retard progression of kidney disease to an advanced stage. There is an urgent need for a national program to control the epidemic of non-communicable diseases like hypertension, diabetes, chronic respiratory ailments and CKD in India.

The current dependence on the private sector for treatment of kidney patients with severe renal disease needs to be reduced with infrastructure upgradation in government run hospitals to facilitate accessibility of treatment for the majority of our population who cannot afford treatment in private hospitals. Till the country is able to provide universal health coverage, state sponsored health insurance schemes like the ones in Tamil Nadu, Andhra Pradesh and Gujarat can make the renal replacement therapy affordable for the poor. 

(The author is senior consultant & HOD Nephrology, Kailash Group of Hospitals, Noida)

## FATHER'S NOBLE INITIATIVE

**A**n 18-year-old young female, a case of road side accident having head injury, was brought to Sri Balaji Action Medical Institute on 20th march 2016. After 3 days of her treatment over there, she was declared brain dead. Her father took a noble step of donating her organs to the needy

ones to save lives. Her both the kidneys, liver and the cornea were taken for donation. Her father's great initiative saved lives of two end-stage kidney disease patients who got kidney transplant at Sri Balaji Action Medical Institute under the leadership of Dr. Rajesh Aggarwal, Chief, Department of

Nephrology and Kidney Transplant. Both the recipients are doing good. Liver and cornea were taken by AIIMS for transplantation. The father's act should be highly appreciated so that more people can come forward to donate organs to save lives of needy people.

# Kidney Disease Affects Children Too

**K**idney disease in children during the last two decades is increasing worldwide with poor outcome & higher cost. As per 2008 estimates, Renal Replacement Therapy in children between 0-19 yrs age across world was 9 per million (4-18 yrs). With the changing lifestyle, food habits of children, mainly fast food such as pizza, chips, pastries, tinned & canned food, kidneys gets more & more strained.

The situation becomes worse with obesity in children & lack of sports activity. In tropical countries like India, due to sore throat, skin ailments or infection from contaminated food, meat, milk preparations & dairy products & juices, bacterial toxins enter the blood with the result that red blood cells (RBC) are destroyed and the inner wall of blood vessels including of kidney gets damaged & broken RBC get lodged in the kidneys. Vomiting, stomach cramps, loose motions, becoming pale, tired & irritable are signs of acute kidney injury results, which can be treated if you consult a nephrologist in time.

This condition is called Haemolytic Uraemic syndrome. Kidney disease can affect children in various ways, ranging from treatable disorders without long term consequences to life threatening conditions. Acute kidney failure may last for a short time but can be serious with long standing consequences or may go away completely once the underlying causes have been treated. The CKD does not go away with treatment and tends to get worsen over time. Congenital disorders (CA CUT) are responsible for 2/3 case of CKD in children.

Thus kidney diseases in children can be grouped depending upon the cause

## (0-4 yrs of age)

- 1. Birth defects**
- 2. Hereditary cause: Child may be born with one kidney or wrongly placed kidney.**



## (5-14 yrs of age)

- 1. Hereditary causes**
- 2. Infections**
- 3. Nephrotic syndrome**
- 4. Systemic Lupus Erythematosus (SLE)**
- 5. Trauma/Injury/Burns/Dehydration from vomiting and diarrhea**
- 6. Urinary Blockage may be due to reflux or valve defect between ureter & bladder.**

In above cases, acute kidney injury happens, but fortunately it can be curable at the initial stage. Only few cases go to permanent kidney failure. Similarly bleeding from any cause may be from trauma, burns or after surgery operation. Kidney failure can happen but it is usually temporary. Once the cause is removed & cured, kidney can be made fully recoverable. Kidney disease due to birth defects, starts from mother's womb itself. Such child may be born with one kidney (Renal Agenesis) or born with both nonfunctional kidneys (Renal Dysplasia) or wrongly positioned to opposite side (Ectopic Kidney) or may be located below or above the normal site. These children can lead full health life but few cases can develop CKD.

Kidney disease due to hereditary causes in children come from parents' side and handed over to child through genetic defect. Diseases like PKD,

Alports Disease, Urethral Valve defect, to name a few, are commonly seen in children. PKD is not curable & so is Alports Disease but Reflux Nephropathy due to urethral valve defect can be tackled surgically.

Nephritic Syndrome, which causes swelling of legs, feet and Ankles and often swelling of hands and face, can also affect children. This can be easily diagnosed by urine for albumin test, low level of albumin in blood and higher construction of serum lipids and fat bodies in the urine. In children, this condition is usually because of allergic cause, viral interactions and even after vaccination.

In children simple tests like urine examination for uncut ratio, blood test to see how much blood the kidney filters each minute (GFR) imaging studies (USG) to see size, shape and other abnormality of kidney and finally kidney biopsy can help the doctor see the extent of kidney damage.

Diet is equally important for kidney disease in kids. There is need for avoidance of protein diet, salt, canned food, frozen/processed foods, chips and crackers, burger and pizza. Judicious use of apples, berries, pineapple, cabbage and boiled cauliflower, liquid non-dairy creams, green beans, popcorn, lemon, lime soda is recommended by doctors.





# Mind your eyes

SAFEGUARD YOURSELF AGAINST ANY POSSIBLE DAMAGE TO EYES DURING HOLI

**BY DR. SAKSHI SRIVASTAVA**

**T**he auspicious occasion of the festival of colours, Holi has great impact on everyone's life. It brings a lot of happiness as you apply colours on one another. But mind it in exchange of any colour, you must take care of your eyes. Any colour containing chemicals will have bad effects on eyes.

Keep the following things in mind as prevention is better than cure:

#### **Precautions Before Playing:-**

1. Oil application on the entire body including hair. Use Coconut oil not Mustard oil
2. Try and cover as much of your body

as possible, wear full sleeve clothes.

#### **During Playing:-**


- Use Biological colours/ Natural colours
- Do not use dark colours as they may contain chemicals and ultimately cause skin allergies, eczema, hair loss etc.
- Ensure colours don't enter nose, mouth or eyes as this may cause breathing issues, toxicity and eye allergies.
- Avoid intoxicants like bhang etc. which may cause dehydration

#### **Be cautious:**

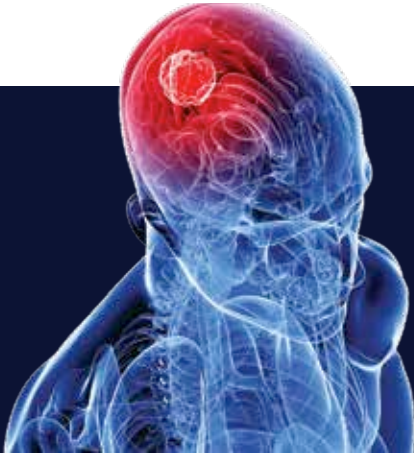
- While cleaning yourself don't use too much of soap as it may

also cause eczema and skin disorders.

- Ensure colours don't enter nose mouth or eyes as this may cause breathing issues, toxicity and eye allergies.
- Avoid intoxicants like bhang etc. which may cause dehydration
- Skin allergy is the common phenomena in people
- Hair loss is another common problem seen
- Take care of children while playing with colours

Please contact your doctor if anything wrong happens. 

(The author is Consultant, Dermatology, Jaypee Hospital, Noida)



# Anatomy of Tumour

Early symptoms of brain tumour can be subtle or obvious, depending on the type, size, and location of the tumour. It's important to confront the challenges with prescribed treatments

**BY DR RAMANDEEP S DANG/DR PRAKASH KHATRI**

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.

Early symptoms can be subtle or obvious, depending on the type, size, and location of the tumour. However, just because a person has these problems, doesn't mean he or she has a brain tumour.

No one knows what causes brain tumours; there are only a few known risk factors that have been established by research. Children who receive radiation to the head have a higher risk of developing a brain tumour as adults, as do people who have certain rare genetic conditions such as neurofibromatosis or Li-Fraumeni syndrome. But those cases represent a fraction of the approximately 35,000 new primary brain tumours diagnosed each year. Age is also a risk factor – people over the age of 65 are diagnosed with brain cancer at a rate four times higher than younger people.

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).

Malignant tumours can grow and spread aggressively, overpowering healthy cells by taking their space, blood, and nutrients. They can also spread to distant parts of the body.

These days, neuronavigation systems enable surgeons to visualize the anatomy of a patient's brain during surgery and precisely track the location of their surgical instruments in relation to the anatomy – even accommodating for the brain



Dr Ramandeep S Dang



Dr Prakash Khatri

shift that occurs during surgery. Using Stealth Station technologies during procedures like tumour resections, surgeons can navigate more precisely, perform less-invasive procedures, and help improve clinical outcomes

If a brain tumour is diagnosed, relieving symptoms remain an important part of your care and treatment. Today, most tumours can be removed safely with microsurgical techniques in a manner that maximizes tumour removal and minimizes harm to the patients. 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.

## 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.

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. 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. 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.

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. If it is 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).

It is 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. 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. 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.

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 (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.

## 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

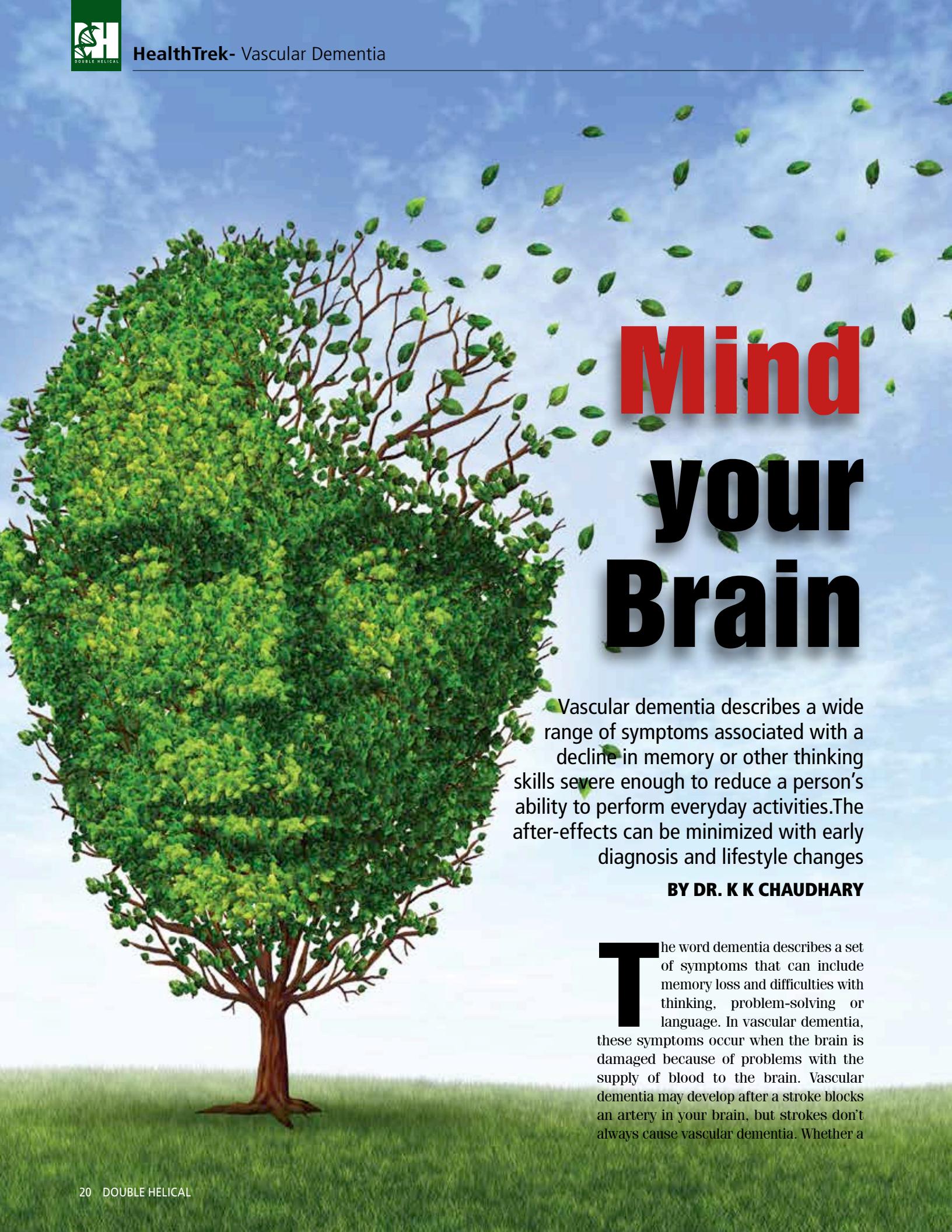
Targeted drug treatments focus on specific abnormalities present within cancer cells. By blocking these abnormalities, targeted drug treatments can cause

## 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. 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. 

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(The author are Endoscopic Brain and Spine Surgeon/Sr Consultant Neurosurgery, Sri Balaji Action Medical Institute, New Delhi)



# Mind your Brain

Vascular dementia describes a wide range of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities. The after-effects can be minimized with early diagnosis and lifestyle changes

**BY DR. K K CHAUDHARY**

**T**he word dementia describes a set of symptoms that can include memory loss and difficulties with thinking, problem-solving or language. In vascular dementia, these symptoms occur when the brain is damaged because of problems with the supply of blood to the brain. Vascular dementia may develop after a stroke blocks an artery in your brain, but strokes don't always cause vascular dementia. Whether a

stroke affects your thinking and reasoning depends on your stroke's severity and location. Vascular dementia also can result from other conditions that damage blood vessels and reduce circulation, depriving your brain of vital oxygen and nutrients.

### Causes

If the lumen of vessels within the brain becomes narrow gradually, it affects the blood supply to the brain and eventually brain cells are destroyed.

This death of brain cells can cause problems with memory, thinking or reasoning. Together these three elements are known as cognition. When these cognitive problems are bad enough to have a significant impact on daily life, this is known as vascular dementia.

### Types of vascular dementia

There are several types of vascular dementia. They differ in the cause of the damage and the part of the brain that is affected. The different types of vascular dementia have some symptoms in common and some symptoms that differ. Their symptoms tend to progress in different ways.

**Stroke-related dementia:** A stroke happens when the blood supply to a part of the brain is suddenly cut off. In most strokes, a blood vessel in the brain becomes narrowed and is blocked by a clot. This is called ischaemic stroke.

#### Do you Know?

About 20 per cent of people who have a stroke do develop this post-stroke dementia within the following six months.

**Single-infarct and multi-infarct dementia:** These types of vascular dementia are caused by one or more smaller strokes. These happen when a large or medium-sized blood vessel is blocked by a clot. The stroke may be so small that the person doesn't notice any symptoms

**Subcortical dementia:** Subcortical vascular dementia is caused by diseases

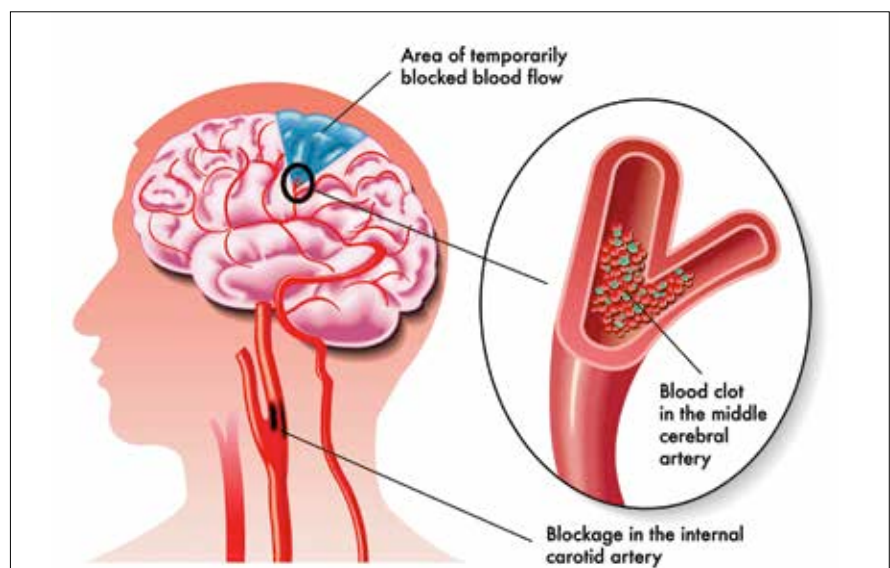
This death of brain cells can cause problems with memory, thinking or reasoning. Together these three elements are known as cognition. When these cognitive problems are bad enough to have a significant impact on daily life, this is known as vascular dementia.

fluent

- Visuospatial skills - problems perceiving objects in three dimensions.

### Who can get affected by vascular dementia?

- Age is the strongest risk factor for vascular dementia. A person's risk of developing the condition doubles approximately every five years over the age of 65. Vascular dementia under the age of 65 is uncommon. Men are at slightly higher risk of developing vascular dementia than



of the very small blood vessels that lie deep in the brain. These small vessels develop thick walls and become stiff and twisted, meaning that blood flow through them is reduced.

The most common cognitive symptoms in the early stages of vascular dementia are:

- Problems with planning or organizing, making decisions or solving problems
- Difficulties following a series of steps (eg cooking a meal)
- Slower speed of thought
- Problems concentrating, including short periods of sudden confusion.


A person in the early stages of vascular dementia may also have difficulties with:

- Memory - problems recalling recent events (often mild)
- Language - speech may become less

women.

- A person who has had a stroke, or who has diabetes or heart disease, is approximately twice as likely to develop vascular dementia.

If someone does have dementia, an early diagnosis has many benefits: it provides an explanation for the person's symptoms; it gives access to treatment, advice and support; and it allows them to prepare for the future and plan ahead. For vascular dementia, treatments and lifestyle changes may also slow down the progression of the underlying disease.

Blood thinning drugs like Ecosprin, helps in maintaining the blood flow of the brain. 

(The author is Neurologist, Primus Super Speciality Hospital, New Delhi)



# Revolutionary Treatment

Targetted therapy seeks block the growth and spread to cancer by interfering with specific molecules involved in the growth, progression and spread of cancer

**BY DR. ANISHMARU**

**T**argeted therapy is a special type of chemotherapy which takes advantage of small differences between normal cells and cancer cells. It is sometimes used alone, but most often other cancer treatments are used with the targeted drug.

Targeted therapies are currently the focus of most anti-cancer drug development. They are a cornerstone of precision medicine, a form of medicine that uses information about a person's genes and proteins to prevent, diagnose and treat diseases. Many targeted cancer therapies

have been approved by the Food and Drug Administration (FDA) to treat specific types of cancer. Others are being studied in clinical trials (research studies with people) and many more are in preclinical testing (research studies with animals). The development of targeted

therapies requires the identification of good targets – that is, targets that play a key role in the growth of cancer cells and their survival. Targeted drugs can be used as the main treatment for some cancers, but in most cases they are used along with other treatments such as chemo, surgery, and/or radiation therapy.

With disease investigations serving as a base, the doctors will be able to know more about the differences in cancer cells (or other cells near them) that help them grow and thrive; they have been able to develop drugs that target these differences. Treatment with these drugs is often called targeted therapy.

Targeted therapy drugs, like other drugs used to treat cancer, are technically considered chemotherapy. But targeted therapy drugs do not work the same way as standard chemotherapy (chemo) drugs. For instance, many targeted drugs go after the cancer cells' inner workings – the programming that sets them apart from normal, healthy cells. These drugs tend to have different (and often less severe) side effects than standard chemo drugs.

Targeted cancer therapies are drugs or other substances that block the growth and spread of cancer by interfering with specific molecules called molecular targets that are involved in the growth, progression and spread of cancer. Targeted cancer therapies are commonly known as molecularly targeted drugs, molecularly targeted therapies, precision medicines or with such similar names.

The targeted therapies differ from standard chemotherapy in several ways. Targeted therapies act on specific molecular targets that are associated with cancer, whereas most standard chemotherapies act on all rapidly dividing normal and cancerous cells. Targeted therapies are deliberately chosen or designed to interact with their target, whereas many standard chemotherapies were identified because they kill cells. Targeted therapies are often cytostatic

(that is, they block tumour cell proliferation); whereas standard chemotherapy agents are cytotoxic that is, they kill tumour cells.

The primary approach to identify potential targets is to compare the amounts of individual proteins in cancer cells with those in normal cells. Proteins that are present in cancer cells, but not normal cells or that are more abundant in cancer cells would be potential targets, especially if they are known to be involved in the growth of cells or their survival.

The research is still going on abnormalities in chromosomes that are present in cancer cells, but not in normal cells. Sometimes, these chromosome abnormalities result in the creation of a fusion gene (a gene that incorporates parts of two different genes) whose product, called a fusion protein, may drive cancer development. Such fusion proteins are potential targets for targeted cancer therapies. For instance, imatinib mesylate targets the BCR-ABL fusion protein, which is made from the pieces of two genes that get joined together in some leukaemia cells and promote the growth of leukemic cells.

### Development

Once a patient target has been identified, the next step would be to develop a therapy that affects the target in a way to interfere with its ability to promote cancer cell growth or survival. For instance, a targeted therapy could reduce the activity of the

Targeted therapy is a special type of chemotherapy which takes advantage of small differences between normal cells and cancer cells. It is sometimes used alone, but most often other cancer treatments are used with the targeted drug



Dr Anishmaru

target or prevent it from binding to a receptor that it normally activates, among other possible mechanisms.

Most targeted therapies are either small molecules or monoclonal antibodies. Small-molecule compounds are typically developed for targets which are located inside the cell because such agents are able to enter cells relatively more easily. Monoclonal antibodies are relatively large and generally cannot enter cells, so they are used only for targets that are outside the cells or around their surface.

### Types of targeted therapies

Many different targeted therapies have been approved for use in cancer treatment. These therapies include hormone therapies, signal transduction inhibitors, gene expression modulators, apoptosis inducers, angiogenesis inhibitors, immunotherapies and toxin delivery molecules.

- **Hormone therapies** slow or stop the growth of hormone-sensitive tumours, which require certain hormones to grow. Hormone therapies act by preventing the body from producing the hormones or by interfering with the action of the hormones. Hormone therapies have been approved for both breast cancer and prostate cancer.
- **Signal transduction inhibitors** block the activities of molecules that

participate in signal transduction, the process by which a cell responds to signals from its environment. During this process, once a cell has received a specific signal, the signal is relayed within the cell through a series of biochemical reactions which eventually produce the appropriate response(s).

In some cancers, the malignant cells are stimulated to divide continuously without being prompted to do so by external growth factors. Signal transduction inhibitors interfere with this inappropriate signalling.

- **Gene expression modulators** modify the function of proteins that play a role in controlling gene expression.
- **Apoptosis inducers** cause cancer cells to undergo a process of controlled cell death called apoptosis. Apoptosis is one method which the body uses to get rid of unwanted or abnormal cells, but cancer cells have strategies to avoid apoptosis. Apoptosis inducers can get around these strategies to cause the death of cancer cells.
- **Angiogenesis inhibitors** block the growth of new blood vessels to tumours (a process called tumour angiogenesis). A blood supply is necessary for tumours to grow beyond a certain size because blood provides the oxygen and nutrients that tumours need for continued growth.

Treatments that interfere with angiogenesis may block tumour growth. Some targeted therapies that inhibit angiogenesis interfere with the action of vascular endothelial growth factor (VEGF), a substance that stimulates new blood vessel formation. Other angiogenesis inhibitors target other molecules that stimulate new blood vessel growth.

- **Immunotherapies** trigger the immune system to destroy cancer cells. Some immunotherapies are monoclonal antibodies that recognize specific molecules on the surface of cancer cells. Binding of



Radiation Therapy

the monoclonal antibody to the target molecule results in the immune destruction of cells that express that target molecule. Other monoclonal antibodies are bound to certain immune cells to help these cells kill the growth of cancer cells.

- **Monoclonal antibodies that deliver toxic molecules** can cause the death of cancer cells. Once the antibody is bound to its target cell, the toxic molecule that is linked to the antibody, such as a radioactive substance or a poisonous chemical, is taken up by the cell, ultimately killing that cell. The toxin will not affect cells that lack the target for the antibody – i.e., the vast majority of cells in the body.
- **Cancer vaccines and gene therapy** are sometimes considered targeted therapies because they interfere with the growth of specific cancer cells. Information about such treatments can be found in the NCI

fact sheets called Cancer Vaccines and Biological Therapies for Cancer.

For some types of cancer, most patients will have an appropriate target for a particular targeted therapy and thus will be able to get treated with that therapy. CML is an example: Most patients have the BCR-ABL fusion gene. For other cancer types, however, a patient's tumour tissue must be tested to determine whether or not an appropriate target is present. The use of a targeted therapy may be restricted to patients whose tumour has a specific gene mutation that codes for the target; patients who do not have the mutation would not be the fit candidates as the therapy would have nothing to target.

Sometimes, a patient is an appropriate candidate for a targeted therapy only when he or she meets specific criteria (for example, their cancer did not respond to other therapies or is inoperable). These





Hormone therapy

criteria are set by the FDA when it approves a specific targeted therapy.

### Limitations

Targeted therapies do have some limitations. One is that cancer cells can become resistant to them. Resistance can occur in two ways: the target itself changes through mutation so that the targeted therapy no longer interacts well with it, and/or the tumour finds a new pathway to achieve tumour growth that does not depend on the target.

Targeted cancer therapies would be less toxic than traditional chemotherapy drugs because cancer cells are more dependent on the targets than the normal cells. However, targeted cancer therapies can have substantial side effects.

The most common side effects seen with targeted therapies are diarrhoea and liver problems, such as hepatitis and elevated liver enzymes. Other side effects seen with targeted therapies,

include skin problems (acneiform rash, dry skin, nail changes, hair depigmentation), problems with blood clotting and wound healing, high blood pressure and gastrointestinal


The most common side effects seen with targeted therapies are diarrhoea and liver problems, such as hepatitis and elevated liver enzymes. Other side effects seen with targeted therapies, include skin problems, problems with blood clotting and wound healing, high blood pressure and gastrointestinal perforation



Immunotherapies

perforation.

Certain side effects of some targeted therapies have been linked to the better outcomes of patients. For example, patients who develop acneiform rash (skin eruptions that resemble acne) while being treated with the signal transduction inhibitors, both of which target the epidermal growth factor receptor, have tended to respond better to these drugs than patients who do not develop the rash. Similarly, patients who develop high blood pressure while being treated with the angiogenesis inhibitor bevacizumab generally have had better outcomes.

The few targeted therapies that are approved for use in children can have different side effects from adults, including immunosuppression and impaired sperm production. 

(The author is, MD, DM- Senior Consultant, Action Cancer Hospital, New Delhi)



HealthTrek- Diet



# Foods that Fight INFLAMMATION

Healthy eating implies consuming food in right amount for a healthy life. Likewise, the anti-inflammatory diet also involves scientific knowledge of selecting and preparing right types of foods in order to gain optimum health

**BY DR SUNEELA GARG & DR ROZALEEN DASH**

Inflammation is a part of the body's immune response; without which our bodies cannot heal. But when it goes out of control — as in rheumatoid arthritis — it can damage the body. Rheumatoid Arthritis (RA) is a chronic, progressive inflammatory disorder characterized by inflammation and cellular proliferation in the synovial lining of joints that can ultimately result in cartilage and bone destruction. This inflammation of the joint lining can cause pain, stiffness, swelling, warmth and redness. RA is also the most common form of inflammatory arthritis in adults, affecting approximately 0.3-1.2% of the world's populations and despite intensive investigations, the etiology of RA remains undefined. There are a number of factors implicated in the onset of the disease, such as:

1. **Genetic factors**
2. **Hormonal factors**
3. **Infectious factors**
4. **Environmental, and**
5. **Dietary factors**

Dietary factors are one of the major factors for inflammation. Although there are no specific nutrition guidelines for people with RA, researchers have found that a diet, rich in omega-3 fatty acids, antioxidants

and phytochemicals, supplies the body with powerful anti-inflammatory nutrients. These foods are commonly a part of the Mediterranean-style diet of fish, olive oil, fruits, vegetables, nuts/seeds and beans. Results showed improvements in pain, morning stiffness, disease activity and physical function.

On the flip side are foods and beverages that have been found to reduce the risk of inflammation, and with it, chronic disease. Studies show that nuts have the property with reduced markers of inflammation. Coffee, which contains polyphenols and other anti-inflammatory compounds, also protect against inflammation. Foods that combat inflammation include: tomatoes, olive oil, and green leafy vegetables, such as spinach, kale, and collards, nuts like almonds and walnuts, fatty fish like salmon, mackerel, tuna, and sardines, fruits such as strawberries, blueberries, cherries, and oranges.

## Simple Choices Can Make a Difference

All of us should eat healthy, but when our food can help treat swelling and inflammation, it makes even more sense to eat healthy. Coupled with other treatments and therapies, a diet

rich in omega acids and antioxidants could keep inflammation down so you can start living pain free. The following foods and nutrients deserve special mention for their ability to quell inflammatory responses in our body:

- Foods high in sugar and saturated fat can spur inflammation.
- Oily fish, like salmon, mackerel, tuna and sardines, are high in omega-3 fatty acids, which have been shown to help reduce inflammation.
- Consuming most of grains as whole grains, as opposed to refined, white bread, cereal, rice, and pasta can help keep harmful inflammation at bay.
- Vitamin E may play a key role in protecting the body from pro-inflammatory molecules called cytokines—and one of the best sources of this vitamin is dark green veggies, such as spinach, kale, broccoli, and collard greens.
- All nuts are packed with antioxidants, which can help your body fight off and repair the damage caused by inflammation.
- Isoflavones, estrogen-like compounds found in soy products, may help lower CRP and inflammation levels in women.
- Milk products are sometimes



considered a trigger food for inflammatory diseases like rheumatoid arthritis, because some people have allergies or intolerances to casein, the protein found in dairy.


- Tomatoes, another nightshade veggie, may also help reduce inflammation in some people.
- Beets (and beetroot juice) helps to reduce inflammation.
- Turmeric, the ingredient that gives curry its yellow colour, works in the body by helping to turn off a NF-kappa B, a protein that regulates the immune system and triggers the process of inflammation.
- Anything that fits into a heart-healthy diet is good for inflammation—and that includes healthy, plant-based fats like olive oil.
- Berries have anti-inflammatory

properties—possibly because of anthocyanin, the powerful chemicals that gives them their rich colour.

- Cherries have the highest anti-inflammatory content of any food.

Foods that combat inflammation include: tomatoes, olive oil, and green leafy vegetables, such as spinach, kale, and collards, nuts like almonds and walnuts, fatty fish like salmon, mackerel, tuna, and sardines, fruits such as strawberries, blueberries, cherries, and oranges

## Conclusion

So it calls for a time to change now! It's the dawn of a new year and there's no better time than now to start fresh with positive lifestyle commitments to live healthier from here on. Even subtle changes can have a huge impact on your health and well-being. Small changes can lead to big results. There is a direct correlation between inflammation in the joints and damage. Decreasing inflammation prevents joint deformities, disability, and lowers cardiovascular risk, in addition to preventing pain and joint stiffness. The bottom line when considering nutrition and RA is to maintain a healthy, well-balanced diet. 

(The authors are Director Professor, HOD and Sub Dean/ Senior Research Officer, Maulana Azad Medical College, New Delhi)



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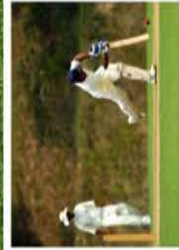


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 **Double Helical** PRESENTS

# **NATIONAL** **HEALTH AWARDS 2016**

March 19, 2016, Hotel Ashoka, New Delhi

**CONFERENCE AWARDS**

# CELEBRATING **EXCELLENCE**

To bring to light the good work in the field of healthcare and related fields, national health magazine Double Helical hosted a conclave and award ceremony that was a huge success and left an indelible impression in the minds of all those who attended the event

**BY AMRESH K TIWARY**



Dr. A K Agarwal lighting the the lamp at the Double Helical Health conclave.



Dr. Jayshree Ben Mehta inaugurates the Double Helical Health Conclave 2016

It was an event that took the national capital by storm. Eminent professionals from the medical, social and political fields took a keen part in the day and night long Double Helical Health Conclave and National Health Awards 2016.

Doctors play a very important role in development of the country and society. They are considered no less than gods and their contribution towards the society has been splendid for which Double Helical came out with this concept of awarding them.

Double Helical is a complete national magazine on health, fitness and holistic living. Over the last one year, the magazine has gained credibility as the voice of all stakeholders from health sector – patients, doctors, health industries, wellness and fitness domains and all other health service providers. It has emerged as a credible source of news and views pertaining to all aspects of healthcare in India.



Dr. A K Agarwal



Dr. Jayshree Ben Mehta



Dr. T K Joshi

In an exclusive first-of-its-kind event, Double Helical organized National Health Conclave and Awards 2016 in the esteemed presence of Shri K.C. Tyagi, Rajya Sabha Member of Parliament and a senior JDU leader. The red carpet cum paparazzi event was organized at the Ashok Hotel, New Delhi in the presence of stalwarts of Indian health sector, who on the day were not looking less than celebrities.

The event was organized in two phases – the first phase saw an exclusive conclave on universal health care and environmental pollution that witnessed participations from various experts of the subject. The day session began with Sarasvati Gaan in praise of the goddess of knowledge by school children belonging to Ambience Public School, New Delhi. The inaugural session was launched by Dr Jayshree Mehta,



Dr A K Agarwal , Shri. K C Tyagi, MP Rajya Sabha and Editor-in-Chief A K Tiwari





Dr. Vinay Agarwal

Dr. Suneela Garg



Shri. K C Tyagi, MP Rajya Sabha, with Amresh K Tiwari

President, Medical Council of India. She appreciated and encouraged the efforts of Double Helical, for organizing the event so well.

The following were the eminent speakers at the session on universal health care and increasing level of pollution:

Dr A K Agarwal, Professor of Excellence and Ex Dean, Maulana Azad Medical, Dr. Vinay Agrawal, Founder Chairman, Max Superspecialty Hospital, Vaishali and Ex President, Indian Medical Association, New Delhi, Dr T K Joshi, Centre for Occupational and Environmental Health, New Delhi, Dr Yash Paul Bhatia, Founder and Chairman, India Healthcare Quality Forum and Astron Institutes of Social Sciences, Dr. Suneela Garg, Director Professor, Deptt of Community Medicine, Maulana Azad

Dr. Deepika Singhal and Shalu Aggarwal, Board Members, Sri Balaji Action Medical Institute and Action Cancer Hospital, honoured by Dr Yash Paul Bhatia for Best Cancer Hospital: Multispeciality



The Cultural Evening event being presented by School children of Ambience Public School, Green Park, New Delhi.



Ghazal Night with a Group of Singers.





Medical College, Dr Damodar Bachani, Health Commissioner, Ministry for Health and Family Welfare, Govt of India, Dr Achal Gulati, Director Principal BSA Hospital, New Delhi, Dr J.C. Passey, Director Professor, Maulana Azad Medical College, New Delhi, Dr M M Singh, Dr Archana Ramalingam, Department of Community Medicine, Maulana Azad Medial college, New Delhi and Dr Anil Sharma, CMD Amrapali Group,

Dr Anil Kumar Sharma shared his views on Green Building concept for quality housing and healthy life. The evening session began with presentation of National Health Awards 2016 followed by the cultural events and ghazal nights.

As you are aware, the health sector in India is witnessing rapid growth. So it is our passion to witness and recount, the exciting journey of healthcare industry in India.

The esteemed presence of the leading doctors in India and others made the conclave interesting and full of

information by sharing their mammoth pool of knowledge. In the second and final phase of the event, the crowd saw an immaculate award show that honoured and felicitated doctors, hospitals and institutions for their tireless efforts towards the society. The winners on the night were extremely happy as their efforts and hard work were acknowledged at such a credible and respected platform.

Chief Guest Shri K C Tyagi, appreciated the efforts of the organizers and saluted the doctors who were honoured with National Health Awards 2016 for their outstanding contribution to medical field. The National Health Awards were not only limited to the medical field, but were also extended to other fraternities. The realty players too play an important role for building quality houses and ensuring healthy living. Accordingly, the event acknowledged the efforts of several eminent developers like Ambience, Antriksh Group, Wave Group, Central Park, Raheja Developers, CHD

Developers, Gulshan Homz, KV Developers, Exotica Housing and Aditya Builders.

Double Helical enjoys an ever-increasing viewership in the country. It also has a global reach through its web edition [www.doublehelical.com](http://www.doublehelical.com) where apart from daily updates, the e-version of the magazine is available in an easy-to-download PDF format.

The magazine is brought out by a team of experienced journalists. Eminent doctors from famous institutions such as Maulana Azad Medical College, Max Healthcare, Centre for Sight, Bali Action Hospital are also associated with the magazine as editorial advisors.

We sincerely hope that the topics covered and discussed during the conclave will help in the overall advancement of the health and medical divisions. We would like to take this opportunity to congratulate all the winners and thank everyone associated with the award night for their tireless efforts. 🙏

# AND THE AWARD

Double Helical PRESENTS

# NATIONAL HEALTH AWARDS 2016

March 19, 2016, Hotel Ashoka, New Delhi

CONFERENCE AWARDS

# TO...

List of the Proud  
Winners of  
Double Helical  
National Health  
Awards, 2016



Double Helical PRESENTS  
**NATIONAL HEALTH AWARDS 2016**  
March 19, 2016, Hotel Ashoka, New Delhi

<b>Category of Award</b>	<b>Name of the Winner</b>	<b>Brief Description</b>
<b>Best Doctor: Achievement in Knee Replacement Surgery</b>	Dr Ashok Rajgopal	A world famous knee replacement surgeon
<b>Best Doctor: Achievement in Cochlear Implant in India</b>	Dr A K Aggarwal	Professor of Excellence and Ex Dean Maulana Azad Medical College
<b>Best Doctor: Specialization in Paediatric Liver Transplant</b>	Dr Neelam Mohan	She has to her credit many firsts such as establishing the paediatric liver transplant program in India.
<b>Best Individual: Specialization/Respective Field</b>	Dr Shilpi Narang	A well-known AVT Specialist and Special Educator (Hearing Impaired)
<b>Best Doctor: Achievement in Community Medicine</b>	Dr Suneela Garg	Sub Dean and Director Professor, Department of Community Medicine, Maulana Azad Medical College, New Delhi
<b>Best Doctor: Specialization/ Individual Achievement</b>	Dr Chandrakant S Pandav	Professor and HOD, Centre for Community Medicine at AIIMS, New Delhi. He works a lot for iodine deficiency disorder
<b>Best Doctor: Specialization in Child Infertility</b>	Dr Suman Yadav	Senior Gynaecologist and Director, Pushpanjali Hospital, Gurgaon
<b>Best Doctor: Specialization/ Respective Field</b>	Dr Shashi Arora	Senior Gynaecologist and HOD, Yashoda Super Multispecialty Hospital, GZB
<b>Best Doctor: Specialization/ Respective Field</b>	Dr Sowjanya Aggarwal	Infertility and IVF Specialist, Max Super Specialist Hospital, Vaishali
<b>Best Ayurvedacharya</b>	Dr T Divakar Rao	CMD, CGHS Hospital, New Delhi
<b>Best Public Health Expert</b>	Dr M M Singh	Professor, Department of Community Medicine, Maulana Azad Medical College, New Delhi

<b>Category of Award</b>	<b>Name of the Winner</b>	<b>Brief Description</b>
<b>Best Doctor: Specialization/ Respective Field</b>	Dr Dinesh Arora	Well-known chest physician and Chairman, Yashoda Super Multispeciality Hospital, Ghaziabad
<b>Young Achiever in Medical Field</b>	Dr Manisha Yadav	A young doctor with multi-faceted talent especially horse riding in polo ground
<b>Young Achiever in Healthcare</b>	Dr Swapnil Shikha	Director of Amrapali Healthcare Pvt Ltd that runs Amrapali Hospital, Greater Noida
<b>Best Doctor: Innovative way of Eye Care</b>	Dr Shishir Narayan	A well-known eye specialist, Shroff Eye Centre, Greater Kailash, New Delhi
<b>Best Doctor: Social work</b>	Dr Amit Gupta	Senior Consultant-Physician and Diabetologist, Amrapali Hospital, Greater Noida
<b>Best Cancer Hospital: Multispecialty</b>	Shri Balaji Action Medical Institute, and Action Cancer Hospital, West Delhi	Being run by Manav Sevarth Trust
<b>Best Heart Hospital: Multi Care Services</b>	Metro Heart Hospital, Noida	Being run by Metro group of Hospitals, Noida.
<b>Best Hospital: Eye Care</b>	Centre for Sight, New Delhi	Being run by well-known eye specialist Dr Mahipal Singh Sachdeva
<b>Best Hospital, Multi Care</b>	Max Superspeciality Hospital, Vaishali	Being run by Max Group of Hospitals
<b>Best Emerging Hospital: Multi Care</b>	Yatharth Hospital, Noida	Being run by Yatharth group of Hospitals
<b>Best Public Sector Hospital</b>	Dr Ambedkar Multispeciality Hospital, and Child Hospital, Noida	Being run by Noida Authority, Noida

<b>Category of Award</b>	<b>Name of the Winner</b>	<b>Brief Description</b>
<b>Best Hospital: Quality Care in 3-tier city</b>	Mohan Heart Hospital, Bulandshahr	Being run by Dr. Subodh Mohan.
<b>Best Social Work</b>	Usha Thakur	She is a well known social worker in respective field
<b>Best Social Work</b>	Capt Preeti	She is a well known social worker in respective field
<b>Best Luxury Housing Developer</b>	Ambience Group	Best Luxury Quality Housing Developer being run by Ambience Group
<b>Best Green Housing Developer</b>	Antriksh Group	Being run by Antriksh India
<b>Best Green Townships Development</b>	Central Park	Being run by Central Park
<b>Best Quality Green Housing Developer</b>	Gulshan Homz	Being run by Gulshan Homz Pvt. Ltd.
<b>Best Green Building for Healthy Lifestyle</b>	Raheja Developers	Being run by Raheja Group
<b>Best Affordable Housing Development</b>	K V Developers	Being run by Aman Aggarwal
<b>Best Green Maintenance Quality Developer</b>	Exotica Housing	Being run by Exotica Group
<b>Best Affordable Quality Developers in Delhi NCR</b>	CHD Developers	Being run by CHD Group
<b>Social Services</b>	Narayan Sewa Sansthan, Udaipur	The Group is a well known NGO
<b>Teacher of Excellence</b>	Ashish Gautam	Principal, Kendriya Vidyalaya, Noida





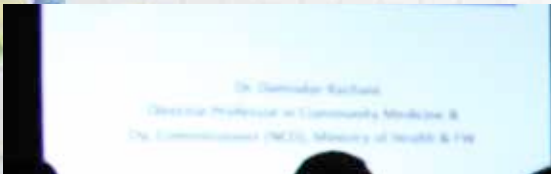














## PROCEEDINGS OF DOUBLE HELICAL HEALTH CONCLAVE 2016



**T**he inaugural session began with Saraswati Gaan in praise of the Goddess of Knowledge by children belonging to Ambience Public School, New Delhi

The grand Conclave on Universal Health Care; Environmental Pollution was inaugurated by Dr Jayshree Mehta, President, Medical Council of India amidst huge rounds of applause. Following talks were delivered during the day-long session:

Noise Induced Hearing loss – Dr. A.K. Agarwal, Professor of Excellence and Ex Dean, Maulana Azad Medical College, New Delhi

Neonatal Hearing Screening by Dr Achal Gulati, Director Principal, BSA Hospital, New Delhi.

Overview of Non Communicable Diseases challenging 21st Century by Dr Damodar Bachani, Health Commissioner, Ministry for Health and Family Welfare, Govt of India.

About Sound Hearing 2030 & Childhood Hearing Loss by Dr Suneela Garg, Director Professor, Department of Community Medicine, Maulana Azad Medical College.

Public Health Perspective on Quality Healthcare for Better Tomorrow by Dr Yash Paul Bhatia, Founder and Chairman, India Healthcare Quality Forum and Astron Institutes of Social Sciences.

Increasing level of Air Pollution - How and Why” by Dr. T.K. Josh, Centre for Occupational and Environmental Health, New Delhi and Dr Rahna Ramalingan, Department of Community Medicine, Maulana Azad Medical College, New Delhi

Cochlear Implant by Dr. J.C. Passey, Director Professor, Maulana Azad Medical College, New Delhi

Green Building for Healthy Living by Dr Anil Sharma, CMD Amrapali Group. 







## WOMAN WITH A MISSION

Dr Manisha Yadav, honoured by Shalu Aggarwal, Board Member, Sri Balaji Action Medical Institute and Action Cancer Hospital for Young Achiever in Medical Field



**R**ecipient of the award for Young Achiever in Medical Field at the Double Helical National Health Awards, 2016, Dr. Manisha Yadav is founder and director of MEDIESTA MEDICARE PRIVATE LIMITED. It is a medical portal founded with an aim to provide affordable healthcare services to people across the country.

She is a down-to-earth personality, who is pursuing her higher studies in Pediatrics. Though a young women entrant in the medical sector, she will soon be launching the India's first groundbreaking, e-clinic for providing psychiatric consultancy online. A marked personality and a professional polo player, she is the founder and owner of polo team 'Mediesta' which has been the recipient of the Baria Cup -2015 and the Field Marshal Cariappa Cup - 2015.

Dr. Manisha Yadav is not only a healthcare innovator, but also a great leader for whom good leadership qualities imply leaving a lasting impression on the society and minds of people while staying

true as a person. She is also empanelled as one of the editorial members of a leading health journal in Delhi NCR.

Since she is an entrepreneur driven by zeal to solve the existing health problems that have plagued our society, Mediesta launched by her is envisaged as a significant brand in the medical sector. A firm believer in the ethical, spiritual and moral development of the society, she has associated herself with a diverse range of social services towards helping the underprivileged orphanages. Besides, she is spearheading an affordable healthcare module in the country, supported by Antriksh India Group, as their CSR initiative.

Being the chief coordinator for National Health Skill Conclave – 2016, her mantra is "When you are passionate about something, you should never give up at any cost. Women are a strong pillar of our families, society and country as a whole. So, they should never give up as our country needs them". This rallying cry has created a special niche and new benchmarks for the brand towards paving her way to achieve greater heights.

## SRI BALAJI ACTION MEDICAL INSTITUTE AND ACTION CANCER HOSPITAL

Winner: Best Cancer Hospital: Multispecialty



**A**ction Cancer Hospital, founded by Lala Mange Ram Aggarwal, is the first state-of-the-art cancer care hospital in the heart of West Delhi. This 100-bedded NBAH accredited hospital, located at Paschim Vihar, was inaugurated on 2nd April, 2010 by the then President of India Mrs. Pratibha Patil. The hospital's mission is to provide world-class affordable healthcare facilities to all sections of society with a human touch, whilst maintaining high standard of ethical practice and professional competency with emphasis on training and education leading to research. Promoted by the Manav Sevarth Trust of Action Group of Companies, the hospital provides hope to those who can't afford high expenses of medical treatment.

Spread across 2.5 acres of land, the full-fledged super-specialty hospital is equipped to handle all types of cancer cases. The infrastructure, equipment and technology have been integrated to international standards to provide globally compatible specialty healthcare. Action Cancer Hospital is equipped with the latest state-of-the-art equipment like Delhi's 1st Rapid Arc Radiation Machine, 16 Slice PET/CT & Gamma Camera, 1.5 Tesla MRI and 64 Slice CT Angio, among others. Not only domestic patients but also those from countries like Afghanistan, Iraq and Nepal are being treated at Action Cancer Hospital.

The hospital has different departments to cater to the specific needs of its patients. Following is a brief overview of the various departments:

1. Department of Medical Oncology: Department of Medical Oncology deals with the systemic therapy of cancer including chemotherapy, hormonal therapy, targeted therapies, supportive care and bone marrow transplantation.

## ICAL INSTITUTE AND ACTION

2. Department of Surgical Oncology: The Surgical Oncology teams are experts in performing surgeries of Head and Neck, Breast, Thoracic, upper and lower GI, Hepatobiliary, Pancreatic, Urology, Gynaecology, Bone and Soft tissue and Skin tumours. The Modular Operation Theatres with central supplies and laminar air flow, stainless steel cladding on wall and epoxy coating on floors maintain the electrostatic and infection free environment.
3. Department of Radiation Oncology: The department is equipped with a computer-controlled dual energy Linear Accelerator (6MV,15MV) which operates in multiple modes, delivering both photon and electron radiation at different energy levels, so the radiation oncologists can choose the most appropriate energy and depth of treatment for each individual case. The department has the most advanced treatment planning system utilizing a CT simulator, numerous software technologies for planning and delivery, and medical imaging technology (CT scan, PET scan, and MRI) that enable the radiation oncologist to precisely define and differentiate the cancerous tumour from normal healthy tissue. The department is also equipped with Brachytherapy setup which is capable of performing Gynaecological, oesophageal, endobronchial, Interstitial and Surface mould brachytherapy.
4. Department of Nuclear Medicine and PET.CT: Nuclear Medicine or Department of radio-isotope imaging is equipped with state-of-the-art 16 slice PET.CT and Dual head Gamma Camera by GE. Dual head gamma camera is used to detect the disease at the functional level. The isotope imaging helps in detecting the disease much earlier than it manifests itself with structural changes to be detected with USG or CT imaging. PET.CT imaging brings the molecular imaging for disease detection. It has revolutionized the oncology practice in recent times and it finds use at every stage of management of oncology patients from diagnosis to future follow up.
5. Department of Radio Diagnostics and Bio Imaging: The department is equipped with the most advanced facilities like:
  - 1.5 Tesla MRI
  - 64 slice CT scan
  - Digital Fluoroscopy and Compound Radiography
  - CR System
  - Bone Densitometry
  - High end Ultrasound and Colour Doppler
  - Mammography
  - Digital and Portable X-Ray
6. Department of Laboratory Medicine and Blood Bank: The department caters to all the pathological tests like:
  - Haematology and Clinical Pathology
  - Biochemistry
  - Microbiology
  - Immuno Assay
  - Histopathology and Cytopathology
  - FNAC with Frozen Section facility

Action Cancer Hospital has the unmatched support of the well-established 300-bedded multi-specialty hospital, Sri Balaji Action Medical Institute and a back-up of 24 Hrs. Emergency, Blood Bank and diagnostics facilities, high-end technology with highly experienced doctors and paramedical staff under one roof.

## CAPT PRITI SIDHARTH SINGH

### Winner: Best Individual/ Specialization in Respective Field

**C**aptain Priti Sidharth Singh is a commercial pilot flying Boeing 737-700/800/900, logged five thousand hours on JET serving as Commander at Spicejet Ltd and is also active in social and development work.

She was a member of Renaissance Youth Leader Program-2003 started by the Government of Japan for mutual understanding and promotion amongst the youth from all over the world, especially in development of societies. At Global Youth Reunion Program UAE-2000, she represented India to participate in S.W.O.T. analysis on youth activities. She was delegated by the Ministry of HRD Govt. of India as Asst. National Leader to 15 countries. Won Miss World Youth at World Youth Program initiated by the United Nations, University & Govt. of Japan on ideological presentation & global discussion on international issues.

She holds N.C.C. Air wing 'A', 'B' & 'C' certificate. She won Best Personality of India-1999 award at the Republic Day parade.

Won Indira Gandhi National Award for the National Service Scheme (NSS). The National Service Scheme Award is presented in recognition of the outstanding voluntary service rendered in the field of national building and community service.

Educational Background and Experience: - MBA Degree, Dept of Management Science & Research, Nagpur University; B Com (Honours), Dept of Commerce & Economics, Nagpur University.

She has a good exposure in corporate sector - Bajaj Auto Ltd; Franklin Templeton Mutual Fund.

In Educational sector, she has taught as Asst Professor at the Institute of Marketing Management, New Delhi. Also, worked as Evaluator at the Indira Gandhi Open University.

Guest Lecturer, Ratni Devi Polytechnic for Women.

Guest Lecturer, G S Management Institute.

At Present, she is Advisor - Lemon School of Entrepreneurship, and Consultant-Acquire Management Services and Solutions.

She is a proud member of the following:

FICCI FLO member under International Youth Exchange Organization (IYEO), Govt of Japan, United Nation University.

NARITAAV (NGO), a forum formed by her for social cause.

One of the founder members of Airliners Immediate Relief (AIR), a volunteer group of Airliners to provide immediate relief material in kind in case of catastrophes.

International Chapter of Women In Aviation (WAI)

Secretary, Indian Council of Human Relations (ICHR).

# METRO HOSPITALS AND HEART INSTITUTE, NOIDA

**Winner: Best Heart Hospital: Multi Care Services**

**M**etro Hospitals & Heart Institute Noida is 317 bedded state-of-the-art super specialty hospital functioning as two units - one dedicated 110 bedded Metro Heart Institute and second 207 bedded Metro Multispecialty Hospital. They are located less than 200 meters apart and provide a complete spectrum of world-class inpatient, outpatient and emergency services.



Metro Heart Institute, the Cardiology Wing of Metro Hospitals & Heart Institute, Noida was established in June 1997 under the leadership of Dr Purshotam Lal, a pioneer in Interventional Cardiology with a mission to provide international standard healthcare at an affordable cost.

Dr Purshotam Lal as Director, Interventional Cardiology and Chairman, Metro Group of Hospitals has played a significant role in bringing Noida on the globe in the field of cardiology with its pioneering efforts on numerous procedures (e.g.: non-surgical replacement of aortic valve for the first time in the world, concept of Metro Coronary Screening, multiple heart

hole closure etc.).

Listed several times in the Limca Book of World Records, Dr. Lal has the unique distinction of performing the largest number of angioplasties as a single operator. He happens to be the First Interventional Cardiologist in the country who has been awarded Padma Vibhushan, Padma Bhushan and Dr. B C Roy National Award by the President of India.

Metro Heart Institute is one of the largest heart hospitals of its kind in the country which has established impeccable proven record of performing more than one lakh procedures with excellent results. The hospital was awarded as the Best Single Specialty Hospital of the Year 2014 by the Minister of State for Health & Family Welfare. It offers comprehensive advanced services in the field of Preventive Cardiology, Interventional Cardiology, Electrophysiology, Cardiothoracic and Vascular Surgery.

The hospital has 45 bedded Intensive Coronary Care and High Dependency Units equipped with advanced life support equipment manned by a trained staff of intensivists, cardiac anaesthetists and qualified nurses.

## DR M MEGHACHANDRA SINGH

Professor, Department of Community Medicine, Maulana Azad Medical College, New Delhi

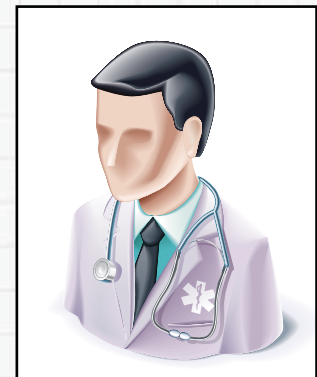
**Winner: Best Doctor: Public Health Sector**

**D**r Singh is entrusted with the teaching of medical undergraduates and postgraduates in Community Medicine, Community Health Nursing, training of interns, patient care and research. Organized 17 training programmes for prevention and control of HIV/AIDS for doctors, nurses, laboratory technicians, group D workers in Delhi in collaboration with Delhi State AIDS Control Society. Organized four training programmes for call centre executives of Jansankhya Sthirta Kosh (Min. of HFW, Govt. of India). Core member for conducting fellowships in HIV Medicine, distance learning course in MAMC, New Delhi.

His research activities include conduction of epidemiological studies related to maternal and child health focusing on

vitamin A deficiency, family planning practices, healthcare seeking behaviour, mental health, coronary heart diseases, hypertension, diabetes, health education,

and assessment of health services. Has conducted several surveys including Integrated Child Development Services Scheme evaluation, Pulse Polio evaluation, and disease outbreak investigations. Worked as Delhi State Nodal Officer for National Programme for Prevention and Control of Deafness, Delhi from 1st August 2008 to Nov. 30th 2009 in addition to routine duties in Maulana Azad Medical College, New Delhi.





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Community/2016/CHD03

Architect's perspective view

1 Sq Meter is 10.764 Square Ft.

# CENTRE FOR SIGHT

Run by Dr Mahipal. S. Sachdev, Chairman and Medical Director

Winner: Best Hospital: Eye Care

**D**r Sachdev was honored with Padmashri award on January 26, 2007. He is a renowned ophthalmic Surgeon who is recognized for his expertise in the area of Corneal, Refractive & Cataract Surgery, both nationally and internationally. He is widely credited to be pioneer in India in propagating the technique of Phacoemulsification for cataract surgery and Lasik Laser for removal of glasses.

Born in 1958, Dr Sachdev passed out of school with academic distinctions. He won the NCERT Science Talent scholarship and certificate of merit from the Ministry of Education. He pursued his medical education at the graduate and post graduate level at the prestigious All India Institute of Medical Sciences (AIIMS). During his residency, Dr Sachdev was awarded the Best Resident Award and also topped his batch in the M.D.Exams. He later joined AIIMS as a Faculty Member. In the year 1989 on a sabbatical from the AIIMS and to master the latest in eye care, he took up a Fellowship at Georgetown University, Washington DC, USA for a year and then returned to AIIMS.

Dr. Mahipal is a visionary and leader. He has always been the torchbearer in the field of eye care pioneering several procedures including laser assisted bladeless surgery for cataract and Lasik. Dr. Mahipal learned about “Phaco” (Stichless micro incision cataract surgery) while pursuing his fellowship at the United States. He knew it was next big thing in ophthalmology. He spotted the technology and applied it. So, by the time others jumped on the phaco bandwagon, he had already established




himself as a phaco surgeon. Dr. Mahipal was among the first to introduce Lasik and Phakic IOLs & Femtosecond laser technology for Lasik. Dr. Mahipal has also pioneered blade-free cataract technology in India.

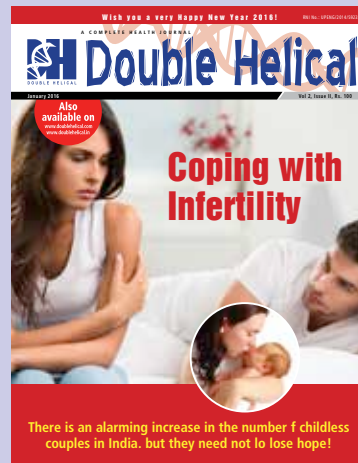
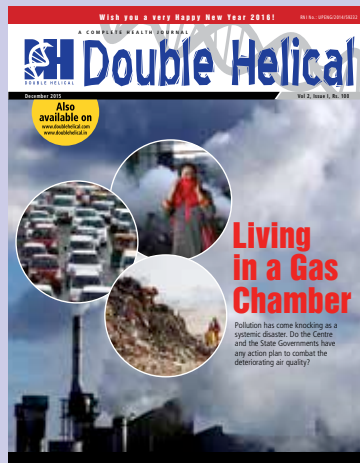
Dr Mahipal Sachdev has been active in imparting surgical training to the larger ophthalmic community. He has conducted several live surgery demonstrations in the remotest locations of India to teach and popularize the technique of suture less cataract surgery. He was the secretary of the Delhi Ophthalmological Society from 1993 to 1995. Under his stewardship the society was transformed from a small local body to an organization of national eminence which influences the practice of Ophthalmology in a major way both in India and abroad. He also held the post of the President of the society.

Dr Mahipal was also the Chairman of the Scientific Committee of the All India Ophthalmological Society from 1996 to 1999, a distinction that he

achieved at the young age of 38. In the year 1999, he was inducted to the Summit Autonomous Society USA, which recognizes leading refractive surgeons globally. He is the Indian representative at the Asia Refractive Council and has been active in various international symposia and conferences, where he has conducted courses and presented over 150 papers. He has over 100 published articles to his credit.

He has also been the editor of the Delhi Journal of Ophthalmology and Visiscan and was on the editorial board of various journals like the Indian Journal of Ophthalmology, Indian Pediatrics, and Ophthalmology World Report etc. He has authored over 5 books on cataract & refractive surgery including the first book on phaco by an Indian Ophthalmologist. These books are today referred to by every budding ophthalmologist. Dr Mahipal is an active contributor of articles on eye health in mass media for the benefit of the general public. 

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# Childhood Interrupted

Child ragpickers are exposed to extreme occupational hazards. Immediate interventions at the level of government and society are called for to save them from a hellish, nightmarish existence

BY AAYUSHI JAIN AND KANIKA JOSHI

**G**rowing urbanization has led to non-biodegradable plastic and other waste piling up round the streets. With the rise of sun and churning of birds, small kids with tri-cycle and big rags in their hands are out on the streets to collect the waste, so that our city can look clean and green.

In 2001, waste picking was included among the hazardous occupations prohibited under the Child Labour Act, 1986. Still in Delhi itself, 60,000 children help in collection, segregation and recycling of waste. The nature of work involves direct contact with the toxic

waste leading to many health issues. Waste picking is largely an urban informal occupational structure and consists of men, women and children.

In Delhi, waste pickers are the ones who pick waste from the streets, bins, open landfills and drains and carry it manually by cycling to collect and segregate specific items like plastic, glass bottles, etc. According to Chintan Environmental Research and Action Group, there are approximately more than 1 lakh waste pickers who help segregate the waste and recycle 30% of garbage. Waste pickers are exposed to some specific health hazards owing to their occupation. Infections and

infestations result from coming into contact with garbage which contains animal and human excreta, sputum dead animals and potentially infectious hospital waste dumped in refuse dumps.

Infection of the skin, respiratory tract and gastro intestinal tract are reported to be more common among waste pickers than others from the same socio-economic group. Chemical poisoning is commonly reported due to inhaling gas/smoke of empty containers. Other than physical injuries and skin infection, the minor mental health problems can be observed in waster pickers. Mental health includes emotional, physical and social wellbeing.





The nature of work, environment and community behavior toward waste pickers, affects their mental health. They are looked down upon by the society and often looked upon as criminals as their work involves roaming on the streets and collecting garbage. They stay in landfills and that in turn has major impacts on their health.

### Study Area

Delhi comprise nine districts, one of them is south Delhi. The total population of south Delhi is 2733752. South Delhi ranges from congested by lanes of villages like Munirka to swanky localities like Hauz Khas, Greater Kailash, C R Park, Panchsheel Enclave, South Extension, Green Park etc. The study was conducted in three locations of South Delhi – R.K Puram, Nizamuddin and Chanakyapuri. In all the three locations, ragpickers' colonies such as Vivekanand Camp, Hanuman Camp and Sundar Nagar were visited.

### Methodology

A cross-sectional study was carried out among ragpickers and neighborhood matched referents from September to November, 2015. The target group apart from waste picker children included others from the same location that were involved in some other occupation such as office worker, carpenter, and newspaper distributor or were studying in school. Respondents only included



**Aayushi Jain**

children between the age group of 5-18 years. Primary source for data collection was twofold.

### Focus group Discussion

It was carried out to gather data on occupational, socio-demographics, economic, health factors and other related details.

### Self-Reporting Questionnaire (SRQ-20)

It was used to document prevalence of minor psychiatric disorders. This instrument was designed by Harding et al. for the World Health Organization (WHO) to study common mental disorders in primary health care, and it is applicable in different cultural settings, especially in developing countries.

This instrument is used to screen

Waste picking is largely an urban, informal occupational structure which consists of men, women and children. Poorest of the poor, illiterate and unskilled migrants, who are usually socially excluded due to the low caste hierarchy, are involved in this sector.



**Kanika Joshi**

minor psychiatric disorders like depression and anxiety and is composed of 20 “yes/no” questions: four on physical symptoms and sixteen on psycho-emotional disturbance. An advantage of using SRQ-20 was that it has been validated in Delhi urban settings and in other studies of workers' health, showing high sensitivity and specificity.

### Result

They usually travel kilometers to collect waste from the bins, houses, and embassies. Headaches were very common among the waste picker children as they traveled the whole day in the sun, then segregated waste in evening. They have no fixed time and long duration of work also affects their appetite. 40% of waste pickers had problem of irregular diet and long gaps between the meals. 90% of children involved in waste picking had body ache and felt tired easily. The hectic schedule of waster pickers made it difficult for them to get physical as well as mental rest. Other than physical injuries which are evident, children go through mental illness which has a lifelong affect.

The problem is acute because they are not protected by occupational health and safety. According to SRQ20 score cut off, there was huge difference between ragpickers and other community kids living in the same location. Depending on the socio-cultural and occupational area, the kids who were not working as



ragpickers had an average much below the actual cut-off of 9.4 set by Dr Amartya Sen. They got an opportunity to chance to complete their education and they did not have to work after school.

On the other hand, the children involved in ragpicking had higher average of 11.5, way above the cut off. They were forced to leave school sometimes due to social stigma and ended up doing this work. Even the children who were going to school had to collect waste on Sundays or help their parents in segregating waste after school. Such situation made the children feel useless in life or even at times even instigated the thought of ending their life. The children involved in this occupation come across different types of waste and even had to go in dark to collect the waste from the street resulting in anxiety and depression problems among them.

The incomplete sleep or dreadful, horrific dreams were regular to waste picker children in comparison to the other children in same location but of different occupation. There were a lot of cases where children were abused by the urban residents, and cases where they had to face problems in school due to the attitude of teachers and students not being so positive towards them. Having said all that, there is not much knowledge about mental health in India,

The most common health impairments found in this community are injuries due to cuts and bruises, from medical waste/chemical waste and those caused by animals. The hazardous working conditions lead to bruises from sharp glass or broken bottle. Also, there is a high occurrence of the waste pickers being bitten by rodents, snakes, dog's bites and stings as well.


and we should strive towards policy and implementation related suggestions for the same.

A right amount of awareness is necessary so that children as young as these do not suffer because of their fate. Every child deserves an opportunity to make something good of his/her life and to be distanced from trash.

### Recommendations

Mechanisms should be in place for all

recyclable material being segregated at source and collected separately. Waste collection systems including bins, boxes, vehicles as well as automated underground collection, diversion and storage systems should be promoted. Reuse of dry waste especially bottles may be done. Extracting greater value from waste by increasing resource efficiency and, increasing the export of goods and services should begin. Example: Recycling and reusing initiative by the Corporation to ensure that waste management doesn't only end at proper segregation but also uses it as a means to re-use waste and set up waste museums, field visits, workshops and markets.

The state authorities should design an in-house specialist design advice across a range of disciplines including; architectural design, civil, process, infrastructure, landfill and geotechnical engineering. The waste pickers role should be able to assist the population by collecting all waste properly segregated in two bags/containers deposit the organic waste in collection site and sell the recyclable waste. Domestic level waste sorting is the essence of this task. Example: Green manure from wet waste is one initiative we can look at, using tetra packs to make effective dustbins for garbage disposal. Bottles can be resold after value addition using glass container. Plastic is the most collected and hence the most usable. Organizing the formal structure for the waste pickers; giving them identity so that they can also take advantage of government scheme and their children can continue going to school; organizing workshops and for vocational training and skill development of the workers in the community with a strong immersion (socially and financially) of the urban clan, are some of the measures urgently needed. We should keep having medical camps on a monthly basis especially for children, the future of the country. 

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