

Committed to building better Healthcare

The latest techniques and treatments to ensure an Active, Healthy & Independent Lifestyle



INDUS TERNATIONAL HOSPITAL



Social Activities

Free Medical Checkup Camp organised by Indus Hospitals





Specialities	Doctor Name	Qualifications	OPD Days	
Anesthesia & Pain Management	Dr. SPS Bedi	MBBS MD	Mon to Sat	
	Dr. Arjun Joshi	MBBS MD	Mon to Sat	
	Dr. Devinder Grewal	MBBS MD	Mon to Sat	
Cardio Thoracic Vascular Surgery	Dr. Ashwani Bansal	MBBS MS MCh	Mon to Sat	
Cardiology & Interventional Cardiology	Dr. Sandeep Parekh	MBBS MD DNB	Mon to Sat	
Colorectal Surgery	Dr. Pankaj Garg	MBBS MS	On Call	
Critical Care & Emergency Medicine	Dr. Jogesh Aggarwal	MBBS MD	Mon to Sat	
ENT Surgery	Dr. Eshaan Kaushik	MBBS MS	Mon Wed Fri	
Family Medicine	Dr. Sakshi Grover	MBBS DNB	Mon to Sat	
Gastroenterology Surgery	Dr. BS Bhalla	MBBS MS	Mon & Wed	
Gastroenterology	Dr. Rajan Mittal	MBBS MD DM	Mon to Sat	
General Surgery	Dr. Anil Kr Sharma	MBBS MS	Mon to Sat	
Gynaecology & Obstetrics	Dr. Jasmine Kang Rana	Rana MBBS DNB Mon to Sat		
Haemotology	Dr. Mukesh Chawla	MBBS MD DrNB	MBBS MD DrNB Mon to Sat	
Internal Medicine	Dr. Kanwar Singh Bhinder	r Singh Bhinder MBBS MD Mon to Sat		
Internal Medicine	Dr. Mayank Sharma	MBBS MD	BBS MD Mon to Sat	
Joint Replacement & Sports Medicine	Dr. B. Harna	MBBS, MS, DNB	Mon to Sat	
Microbiology & Transfusion Medicine	Dr. Parminder Kaur Gill	MBBS MD	Mon to Sat	
Nephrology & Dialysis	Dr. Narinder Sharma	MBBS MD DNB	Mon to Sat	
Neurology	Dr. Ruchi Jagota	MBBS MD DM	Mon to Sat	
Neurosurgery	Dr. Rainish Kumar	MBBS MS MCh	Mon to Sat	
Nutrition & Dietetics	Dt. Mavank Kapoor	DDHN	Mon to Sat	
	Dt Gauri	MSC	Mon to Sat	
Oncology (Orthopedics)	Dr. Rajat Gupta		On Call	
Oncology (Radiation)	Dr. Vinod Nimbran	MBBS MD	Tue Thu Sat	
	Dr. Kamalpreet Kaur		Mon to Sat	
Medical Oncology	Dr. Deepak Singla		Mon to Sat	
Oncology (Surgical)	Dr. Ashwan Kallianpuri	MBBS MS MCh	Mon to Sat	
	Dr. Ashwani K Sachdeva	MBBS MS MCh	Mon to Sat	
Orthopedics & Joint Replacement	Dr. VPS Sandhu	MBBS MS MCI	Mon to Sat	
Pathology	Dr. Ankush Navyar		Mon to Sat	
Pediatrics Neonatology & Hematology	Dr. Kushagra Tanaja		Mon to Sat	
Pediatrics Surgery	Dr. Abhishek Gunta		Mon to Sat	
Pediatrics Neurology	Dr. Mukul Malbotra		Mon Wed Fri	
Plastic & Beconstructive Surgery	Dr. Ritwik Kaushik			
Psychiatry Behavioral & Drugs Behabilitation	Dr. Prannav Gulati		Mon to Sat (1ct & 2rd Thu Outride	
r sychiad y, behaviorar a brags renabilitation	Dr. Vikas Bhateja	PhD(Cognitive Psy.)	Mon to Sat	
Counseling Psychologist	Mrs. Sarnit Chopra	MA PGDFCG	Mon to Fri	
Pulmonology & Sleep Medicine	Dr. Kanwaliit Singh	MBBS MD	Mon Wed Fri	
Radiology	Dr. Tejeshwar Singh	MBBS MD	Mon to Sat	
- 57	Dr. Jaspreet Singh		Mon to Sat	
Renal Transplant Surgeon	Dr. Rajan Sharma	MBBS MS MCh	Mon to Sat	
Skin, Laser & Cosmetic Medicine	Dr. Ramandeen Kaur	MBBS MD	On Call	
Urology	Dr. Prachant Rancal		Mon to Sat	
Vascular Surgery			Mon to Sat (Every Eri Outside)	
vascalar surgery	DI. VISIIdi ALLI		won to sat (Livery Fil Outside)	

From us to you

Throughout the year we generate awareness around specific conditions and diseases that people struggle with daily. Indus Healthcare is committed to bring today's most pressing health issues to the forefont for public awareness.

In this issue of Indus Alive you will find various topics related to health issues, their management and follow-up.

Looking forward for your feedback and suggestions.

feedback@indushospital.in

For sending in your articles, Queries and suggestions: Contact:

Dr. Navtej Singh 98760 82222 Dr. Dimpy Gupta 62800 28464 Email : alive@indushospital.in

Services available for ECHS members are:

Generalised Services General Medicine ENT Orhopedics Microbiology General Surgery Obstetrics Gynaecology Pathology Anesthesia Emergency Services Support 24 Hrs. Ambulance Service 24 Hrs. Pharmacy Specialised Services	Surgery Surgical Oncology Gastro Intestinal Surg Traumatology Laparoscopic Surgery Joint Replacement Radio Therapy Medic Cardiology Urology Medical Oncology Obstetrics & Gynaeccology Onco-Gynaecology Pathology General Pathology Onco-Rathology
Specialised Services	Onco-Pathology

Mobile App



App Store



Indus Information Centre

contact@indushospital.in
www.indushospital.in

Designed By: Rajat Pahwa (Graphic Designer) Contact : 8699367738, 6280692412

Page 2 | Jan-Feb, 2023

An overview and management of OSTEOPOROSIS

Osteoporosis is characterised by low bone mass and microarchitectural deterioration of bone tissue, leading to enhanced bone fragility and consequent increase in fracture risk.

It is more common in older people, and women. With an aging population and longer life span, osteoporosis is increasingly becoming a global epidemic. It is a common condition affecting one in three women and one in 12 men, resulting in substantial morbidity, excess mortality, and health expenditure.

Pathogenesis Of Osteoporosis



Osteoporosis can be classified into two main groups by considering the factors affecting bone metabolism:

- Primary osteoporosis
- Secondary osteoporosis
- Primary osteoporosis can also be divided into two subgroups:

Involutional Osteoporosis Type I

It is also known as postmenopausal osteoporosis, caused by the deficiency of estrogen, mainly affecting the trabecular bone; therefore, women are more susceptible to osteoporosis than men, as evident by a men/women ratio of 4/5.7.

Involutional Osteoporosis Type II

It is also called senile osteoporosis, and it is related to bone mass lost due to the aging of cortical and trabecular bones

Secondary osteoporosis

Osteoporosis can also be secondary to a large number of conditions. These include oral corticosteroids, hypogonadism, alcohol abuse, hyperthyroidism, skeletal metastases, multiple myeloma, and anticonvulsants. Up to 30% of women and 55% of men with symptomatic vertebral crush fractures have an underlying cause of secondary osteoporosis. Secondary osteoporosis may also be a risk factor for hip fracture.

Clinical findings and complications



Diagnosis of osteoporosis

1. Bone mineral density is measured by means of dual X-ray absorptiometry (DXA)

- 2. Fracture Risk Assessment Tool Model (FRAX)
- 3. Vertebral imaging (Vertebral fracture assessment)
- 4. Biochemical bone turnover marker (BTM)
- 5. Following studies are necessary to rule out secondary osteoporosis (32):
- Complete blood count (CBC)
- Serum creatinine, calcium, phosphorus, and magnesium
- Alanin aminotransferase (ALT), aspartat aminotransferase (AST) & alkaline phosphatase(AP)
- Thyroid-stimulating hormone (TSH) and free T4
- Vitamin D (V-D) (25 (OH) D)
- Parathyroid hormone (PTH)
- Total testosterone and gonadotropin in younger men
- BTMs

Who should be considered for treatment?

Postmenopausal women and men aged 50 years and above who present with the following should be considered for treatment:

- A hip or vertebral fracture (clinically apparent or found on vertebral imaging) because it was shown that the patients with spine and hip fractures had reduced fracture risk with pharmacologic therapy, irrespective of the ${\rm T}$ score.
- Determination of fractures when the T-score ??2.5 at the femoral neck, total hip, or lumbar spine
- Low bone mass (T-score between ?1.0 and ?2.5 at the femoral neck or lumbar spine) and
- 10-year probability of a hip fracture ?3% or a 10-year probability of a major osteoporosis-related fracture ?20%

The main goals of therapy in osteoporotic patients are as follows:

- To prevent fractures by improving bone strength and reducing the risk of falling and injury
- To relieve symptoms of fractures and skeletal deformity
- To maintain normal physical function

Lifestyle changes to reduce bone loss

All patients with osteoporosis and fractures should be given advice on lifestyle measures to decrease bone loss. These include eating a balanced diet rich in calcium, moderating tobacco and alcohol consumption, maintaining regular physical activity, and exposure to sunlight.

Choice of treatment in the individual patient

In considering the choice of treatment in the individual patient, a number of factors are important. These include the underlying pathogenesis of bone loss, evidence of efficacy in any particular situation, the cost of treatment, tolerability, and patient preference. It is therefore probably inappropriate to consider HRT in the absence of oestrogen deficiency, or calcium and vitamin D supplementation in women at the menopause who are likely to be vitamin D replete.

Prevention of falls

Falls are the cause of a majority of osteoporotic fractures; therefore, a program needs to be structured for the effective treatment of osteoporosis in order to prevent falls. Older and frail persons and those who have had a stroke or are taking medications that decrease mental alertness are particularly predisposed toward falls.



NOW SAVE MORE ON YOUR HOSPITAL VISIT

One Card For The Entire Family

INDUS PRIVILEGE CARDS



	SILVER	GOLD	PLATINUM
OPD*/ DENTAL PROCEDURE	20%	20%	30%
IPD**	10%	15%	20%
DIAGNOSTIC	15%	20%	25%
LAB	15%	20%	25%
PHARMACY*	5%	10%	15%
HOMECARE	10%	15%	20%
AMBULANCE	NIL	50% (within 15 km)	No Charges
COST OF THE CARD	500/- 250/-	1000/- 500/-	1 500/- 750/-

Terms & Conditions Apply

*SAVE UPTO 30% ON HOSPITAL SERVICES



Page 4 | Jan-Feb, 2023



Cervical Cancer Awareness month

January 2023

January month is sought as an opportunity to spread awareness about the cervical cancer which is the 4th most common cancer among females worldwide and second most common in India. According to GLOBOCON data, about 4/5th of the cervical cancer burden is found in the developing nations with more than 50% cases found in Asia alone. In 2020, more than 6 lakh women were diagnosed with cervical cancer with about 3.5 L died of the disease.

Cervical cancer is highly preventable cancer involving the lower part of uterus and is caused by infection with Human Papilloma virus (HPV). There are many types of strains exist for HPV among which HPV 16 & 18 are the most virulent known to cause invasive malignant disease. Other strains are mostly associated with benign genital warts. HPV virus is also associated with few other cancers such as cancers of vagina, vulva, anal canal, Oropharynx, and penile cancer among the males.

Prevention of Cervical cancer is mainly considered to be two types

Primary prevention: It is focused on preventing infection with cancer causing HPV by means of vaccinating the girls vulnerable to exposure to the virus.

Secondary prevention: is done through regular screening of at risk females with genital examination and PAP smear and HPV DNA testing done at regular interval to identify any premalignant change.

Based on the above methods, 99% of the cervical cancers can be prevented. WHO has issued targets for 2030 to control the cervical cancer which include

- Vaccination of 90% of girls with HPV vaccine by the age of 15 years
- Screening of 70% of women with effective methods by age of 35 years
- Treatment of 70% of women who were diagnosed with cervical disease.

In order to achieve above targets, awareness among the population about the nature of disease, its burden and methods to prevention and treatment is imperative.

HPV Vaccines

First vaccine to used against HPV was approved in 2006. Vaccines are developed using recombinant DNA and cell culture technology forming virus like particles (VLPs). All vaccines contain VLPs for high risk HPV strains HPV 16 & 18. Quadrivalent and Nonavalent vaccines contains VLPs against other high risk viruses including HPV 31,33,45,52,58.

Various vaccines available in India are:-

- Bivalent vaccines Cervarix
- Quadrivalent vaccine Gardasil
- Nonavalent vaccine Gardasil 9

These vaccines are approved for boys and girls aged 9-13 years for two doses 6 months apart. Three doses for girls aged above 15 years (0, 1, 6 month interval). Administration of vaccine is done intramuscularily in deltoid region and dose is 0.5ml.

HPV vaccines can also be given till the age of 26 years to women if they are not already vaccinated. Vaccination above 26 years age is although not recommended but it can be given after discussion with your doctor about the possible benefits and risk of getting new infections.

HPV vaccine is preventive, does not work if HPV infection if already present as it does not treat any existing infection.

Screening

Secondary prevention involves use of PAP smear and HPV test to detect any premalignant change if the cervical mucosa and treat it early before it converts into cancerous form.

PAP smear involves collection of cells from cervix using a brush inserted through vagina and looking for any premalignant change in the cell layer which has potential to turn malignant

HPV testing involves detecting any potential cancer causing HPV strains on the liquid biopsy specimen.



INDUS INTERNATIONAL HOSPITAL



US preventive task force and American cancer society recommends

- Screening with PAP smear starting at the age of 21 years repeated after every 3 years.
- After 30 years, a PAP smear with HPV testing together or HPV testing alone is recommended, and to be repeated after 5 years if results are normal.
- Prompt action to taken after discussion with your doctor if any abnormal results come in the screening tests to prevent progression of disease.

Talking with your healthcare provider and getting Information about the disease, Vaccination with HPV vaccines and Screening for early signs can prevent development of Cervical cancer in more than 90% of the cases.

LOW PLATELETS What should we think of?



Thrombocytopenia, defined as a platelet count of less than 150,000/microL, is clinically suspected when there is a history of easy bruising or bleeding in a child. It may also present as an incidental finding during routine evaluation or during investigations performed for other reasons. Categorization is based on mechanism of thrombocytopenia.

PLATELET DESTRUCTION - Disorders involving increased platelet destruction typically result in the appearance of enlarged platelets on the peripheral blood smear, indicating that the bone marrow is producing new (larger) platelets to compensate for the increased destruction. In this setting, examination of the bone marrow generally shows normal or increased numbers of megakaryocytes.

The destructive mechanisms resulting in thrombocytopenia in children include:

Immune-mediated thrombocytopenia: The most common cause of thrombocytopenia due to platelet destruction is an immune-mediated process. Autoantibodies, drug-dependent antibodies, or alloantibodies mediate platelet destruction.

<u>Immune thrombocytopenia (ITP)</u>: Children with immune thrombocytopenia (ITP, previously known as idiopathic thrombocytopenic purpura) usually present between 2 and 10 years of age, with a peak incidence between 2 and 5 years. They generally present with the sudden appearance of bruising and/or bleeding in an otherwise healthy child, often after an antecedent viral illness.

Infrequently, other autoimmune-mediated cytopenias (most commonly anemia) will present coincidentally with thrombocytopenia, a condition known as Evans syndrome.

<u>Neonatal alloimmune thrombocytopenia</u>: Neonatal alloimmune thrombocytopenia (NAIT) is an uncommon syndrome (frequency of 1 in 1,000 live births) caused by alloimmunization secondary to incompatibility of platelet antigens between mother and fetus (analogous to hemolytic disease of the newborn). It is manifested by an isolated, transient, severe thrombocytopenia in the neonate due to platelet destruction by maternal IgG alloantibodies that have crossed the placenta.

<u>Autoimmune disorders</u>: Antibody-mediated thrombocytopenia also occurs with antiphospholipid antibody syndrome, systemic lupus erythematosus, and autoimmune lymphoproliferative syndrome.

Drug-induced thrombocytopenia: Drug-induced thrombocytopenia is typically caused by drug-dependent antibodies formed against a new antigen on the platelet surface created by drug binding to a platelet surface protein. Heparin-induced thrombocytopenia, which can be associated with severe thrombosis, is due to the formation of antibodies against the heparin-platelet factor 4 complex. Other drugs that may cause immune-mediated thrombocytopenia include valproic acid, quinine, quinidine, trimethoprim sulfamethoxazole and vancomycin.

Platelet activation and consumption: In patients with disseminated intravascular coagulation and the microangiopathic disorders, hemolytic uremic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP), thrombocytopenia occurs because of platelet activation, aggregation, and consumption. The presence of schistocytes on the peripheral smear, anemia, and renal insufficiency are characteristic of HUS and TTP.

A more localized manifestation of coagulation activation and platelet trapping accounts for the thrombocytopenia found in subjects with kaposiform hemangioendotheliomas and tufted hemangiomas (Kasabach-Merritt syndrome).

Mechanical destruction - The use of extracorporeal therapies, such as extracorporeal membrane oxygenation, cardiopulmonary bypass, hemodialysis, and apheresis, is associated with mechanical destruction of platelets, which may result in thrombocytopenia.

IMPAIRED PLATELET PRODUCTION - Decreased production of platelets may be due to bone marrow infiltration, suppression or failure, or a defect in megakaryocyte development and differentiation.

Infection - Thrombocytopenia due to infections (independent of disseminated intravascular coagulation) is usually caused by bone marrow suppression. In some cases, the low platelet count also may be, in part, due to an immune mediated process. Implicated infectious agents include Epstein-Barr virus, cytomegalovirus, parvovirus, varicella, and rickettsia.

Cyanotic heart disease - Cyanotic congenital heart disease is associated with thrombocytopenia. The etiology is unclear, but the mechanism appears to involve decreased production of megakaryocytes.

Bone marrow failure or infiltration - Pancytopenia is the combination of anemia, leukopenia (low white cell count), and thrombocytopenia. Its presence suggests general bone marrow dysfunction (eg, aplastic anemia, chemotherapeutic agents, or radiation) or infiltrative disease (eg, leukemia or hemophagocytic lymphohisticcytosis).

Patients with pancytopenia, especially with systemic signs and symptoms (eg, fever, weight loss, or decreased energy), should be carefully evaluated in a timely manner as they are at increased risk for a serious disorder, such as leukemia or aplastic anemia, that may require urgent intervention. The assessment should include bone marrow examination.

Nutritional deficiencies - Folate and vitamin B12 deficiencies impair bone marrow production, resulting in pancytopenia. Iron deficiency, which has been reported to cause both thrombocytosis and thrombocytopenia, appears to impair a late stage of thrombopoiesis.

Genetic causes of impaired thrombopoiesis - A large number of rare inherited diseases present with reduced platelet count, and many also have impaired platelet function These conditions arise from genetic defects of the megakaryocyte lineage that result in impaired thrombopoiesis. It include TAR syndrome, CAMT, Bernard-Soulier syndrome, Wiskott-Aldrich syndrome, etc

It is important to have detailed evaluation by pediatric hematologist in case of prolonged and severe thrombocytopenia in a child.



MBBS (MAMC, New Delhi), MD Pediatric (LHMC, New Delhi) FAP Peds Hemato Oncology, (Aplollo, New Delhi) Consultant Pediatrics & Hematologist / Oncologist **INDUS INTERNATIONAL HOSPITAL** Plot No. 114, Chandigarh-Ambala Road, NH-22, Derabass, Mohali-140507 Ph. No. 01762-512600





OUR TEAM OF **SUPER-SPECIALISTS, SURGEONS, PHYSICIANS, MEDICOS** AND **ALLIED STAFF WORK** TO PROVIDE **THE BEST MEDICAL CARE** WITH AN APPROACH THAT IS SPECIFIC, EFFECTIVE AND AFFORDABLE.

Centres of Excellence

Advanced Critical Care Advanced Cancer Care Advanced Heart Care Advanced Kidney Care Advanced Surgical Care Advanced Neuro Care Advanced Lungs Care Advanced Liver & Gastroenterology Care Advanced Lab & Transfusion Medicine Advanced Neonatal & Children Care Advanced Cosmetic & Beauty Care Advanced Bones & Joints Care Advanced Women Care Advanced ENT Care

Special Support Services

40+ Medical Treatment Specialities 50+ ICU Beds in 8 Categories 700 Patients Bed Capacity in Total 24x7 Blood Bank, CLIA Enabled De Addiction Centre & Rehabilitation Govt. Authorised COVID Care Facilities In-house MRI, Radiodiagnosis & Lab Services

INDUS HOSPITALS

- Indus International Hospital, Dera Bassi (Mohali), PB
- Indus Super Speciality Hospital, Phase 1, Mohali, PB
- Indus Hospital & Scan Lab, Phase 3B2, Mohali, PB
- Indus Hygiea, Phase 6, Mohali, PB
- Indus Fatehgarh Sahib Hospital, Punjab
- Mehndiratta Hospital, Ambala City, HR Clinically Supported By Indus Super Healthcare LLP
- Healthsure Multispeciality Hospital, Gharuan, PB Clinically Supported By IND HEALTHSURE LLP (INDUS HOSPITALS)



Biggest NABH approved set up of Tertiary Care Hospital Units in Tricity Chandigarh



We are empanelled with all major Insurance providers, ECHS, CGHS, ESI & Govt. Health Schemes