EMERGENCY MANAGEMENT SYSTEM

Accessibility for the public to the Emergency Management System,
to adequate radio space for providers to communicate with each other in spite of disaster, communications is the epitome of EMS.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

RIGHT TO SCIENCE CLUB

virinchi HOSPITALS Cell Correct

Orthopaedics, Physiotherapy & Pain Management

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Adding Years to Life & life to Years

DEPARTMENT OF ORTHOPAEDICS & PHYSIOTHERAPY

virinchi HOSPITALS
Cell Correct

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Dr. Aditya Kapoor

MS, (Ortho), MRCS (Edin)

Joint Replacement and Arthroscopy Fellowship

Sr. Consultant Orthopaedic & Trauma Surgeon

Dr. Aditya Kapoor is our Senior Consultant Orthopedic Surgeon in the Department of Orthopedics, Virinchi Hospitals. Previously, he worked as a Consultant Orthopedic Surgeon at Udai Omni Hospital, Kamineni Hospital and Lucid Diagnostics at Hyderabad and as visiting Consultant at Nova Surgical Centre. His areas of expertise are in Primary and Revision Joint Replacement Surgery (Primary and Revision Arthroplasty), Arthroscopic Surgery (Minimally Invasive Keyhole Surgery), Sports Medicine, Joint Preservation Surgery, Shoulder Arthroscopy, Limb Reconstruction & Trauma (Fracture) Surgery.

He has hands-on experience in: Total Hip Replacement cemented and uncemented; Total Knee Replacement (High Flexion, Gender Specific and CAS); Shoulder Replacement (Hemiarthroplasty, Total and Reverse Shoulder); Unicompartmental Knee Replacement – all knee arthroscopy including ACL Reconstruction, Medial Patello-femoral ligament reconstruction (MPFL), PCL Reconstruction, Meniscectomy and Meniscal Repair, Chondroplasty, OATS and Autologous Cartilage Implantation; Shoulder Arthroscopy – Sub Acromial Decompression, Bankarts Repair, Rotator Cuff Repair; Orthobiologics - Platelet Rich Plasma and Autologous Bone Marrow Injections; Distal Femoral and Proximal Tibial Osteotomies and Proximal Femoral Osteotomy and management of all fractures including non-unions.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

DEPARTMENT OF ORTHOPAEDICS & PHYSIOTHERAPY

FOREWORD: ORTHOPAEDICS

Virinchi Hospitals Orthopaedics, Joint Reconstruction & Sports Medicine disciplines are some of the best ortho-care centres in the country in offering precise diagnosis and treatment for all the disorders affecting the musculoskeletal system including joints, bones, tendons, ligaments, muscles and nerves. Care is offered across multiple disciplines including paediatrics, sports, trauma, spine, foot, elbow, hand, and shoulder. The centre has internationally trained orthopaedic surgeons, radiologists and plastic surgeons, with dedicated teams for upper & lower limb treatments.

The centre offers computer navigated joint replacements, advanced sports medicine and arthroscopy procedures, joint preservation, cartilage regeneration and mesenchymal stem cells procedures, complex trauma and limb reconstruction procedures.

Before and after any procedure, a concerted care is offered to the patient by a multidisciplinary team of experts including general physicians, radiologists, physiotherapists and relevant specialists from other disciplines to ensure better outcome and faster recovery.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Dr. Sudhir Reddy

MBBS, MS (Ortho), M.Ch (Ortho), FRCS (Edin), FRCS (UK)
Joint Replacement and Arthroscopy Fellowship

Sr. Consultant Orthopaedic & Trauma Surgeon

Dr. Sudhir Reddy is a Sr. Consultant in department of Orthopaedics at Virinchi Hospitals. He has more than 14 years of experience in his field. Prior to joining Virinchi Hospitals, he worked as Chief Orthopaedic & Joint Replacement Surgeon at Landmark Hospitals, Hyderabad and Century Hospital, Hyderabad India. Dr. Sudhir Reddy has also worked as a consultant orthopaedic surgeon with several well-known hospitals across the U.K. including Ninewells University Hospital, Royal National Orthopaedic Hospital, Oswestry Orthopaedic Hospital and The Wellington Hospital.

His main areas of practice are 'Adult Joint Reconstruction' (joint replacement) and 'Regenerative Surgery'. He has high grade of skills and experience in Joint Replacement Surgery including Primary Knee and Hip arthroplasty, Revision Arthroplasty Surgery, Arthroscopy of the knee and all major trauma surgeries. Dr. Reddy acquired his MBBS and MS (orthopaedics) degrees from the prestigious All India Institute of Medical Sciences (AIIMS) in Delhi, along with M.Ch. (orthopaedics) from the UK. He completed his FRCS (Edinburgh) and FRCS Trauma & orthopaedic surgery from the UK.

His clinical expertise lies in total Knee Aarthroplasty, Unicondylar Knee Arthroplasty, Total Hip Arthroplasty, Hip Resurfacing, Minimally Invasive Hip and Knee Arthroplasty, etc.

Dr. Reddy is a member of the international cartilage research society, British orthopaedic association, and Indian orthopaedic association. He is also an associate member of the American association of orthopaedic surgeons.

MEET OUR EXPERTS

Dr. Natesh Kolusu

MBBS, MS (Ortho)

Jr. Consultant Orthopaedics & Trauma Surgeon

Dr. Kolusu Natesh is an Associate Orthopedic Surgeon in the Department of Orthopedics at Virinchi Hospitals. Over the years he gained expertise in Primary and Revision Joint Replacement Surgery (Primary and Revision Arthroplasty), Arthroscopic Surgery (Minimally Invasive Keyhole Surgery) and Trauma (Fracture) Surgery. He worked as a Fellow Orthopedic Surgeon at Sunshine Hospital and Srikara Hospital and as Assistant Professor in the Department of Orthopedics at Malla Reddy Medical College. He has hands-on experience in Arthroscopy, Arthroplasty and Trauma Surgery.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Dr. Madhavi Ganta Banik

BPT (MAHE)

Doctor of Physical Therapy (USA)

Chief Physiotherapist

Dr. Madhavi Ganta Banik is Head of the Department of Physiotherapy and Wellness at Virinchi Hospitals. She has more than 10 years' clinical experience in physiotherapy. She earned the credit of excelling in her field through many of her patients and colleagues. She started her career with Apollo Hospitals, Hyderabad and worked there for about 6 years and then left for US to pursue higher education. While pursuing her DPT, which is the highest level education in her field to date, she worked in a skilled nursing facility for about three years. Afterwards, she returned to India and joined Maxcure Hospitals.

She is well versed with advanced treatment techniques like Kinesiotaping and Manipulations. She practices evidence-based medicine and strongly advocates lifestyle modifications and ergonomic changes to make a person fit the job and to make the job fit the person". She has earned certifications in Taping and women's health by renowned instructors.

DEPARTMENT OF ORTHOPAEDICS & PHYSIOTHERAPY

FOREWORD: PHYSIOTHERAPY

Our team of physiotherapists are experts in developing, maintaining and restoring movement and functional ability and maximise quality of life

The department offers musculoskeletal service, which provides assessment and treatment of all musculoskeletal conditions by assessing every individual's needs for a personalised treatment plan that uses a variety of treatment techniques, which includes exercise, manual therapy, acupuncture, hydrotherapy, education and advice. Also, the other services include 24-hour intensive respiratory care, pulmonary rehabilitation, ergonomics consultation, lymphoedema therapy, vestibular rehabilitation, extended service at Accident and Emergency for musculoskeletal injuries and provides the most comprehensive burns and wound care management.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Dr. Joseph Edla

BPT, MPT, MBA

Sr. Physiotherapist

Joseph Edla is a Senior Physiotherapist in the Department of Physiotherapy & Wellness at Virinchi Hospitals. He has overall six years' experience in physiotherapy and wellness. Prior to joining Virinchi Hospitals, he worked as Physiotherapist at Yashoda Hospital and Apollo Wellness Centre, Hyderabad. He has hands-on experience in the techniques of manual therapy, taping, IASTM, and dry needling. His areas of interest include offering care for sports injuries and planning sports specific training programs.

He has hands-on experience in understanding the pathophysiology of various diseases and rehabilitation; designing physical therapy and wellness protocols for various sports injuries, musculo-skeletal, neurological and cardio-respiratory conditions; and treating musculoskeletal conditions like back pain, neck pain, shoulder pain, joint pains, sciatica etc. In addition, he also deals with Intensive care unit management of Pre- surgical and Post- surgical patients, manual therapy and taping techniques for sports injuries, and treatment of geriatric patients.

Dr. Kalyani Dasari

BPT, MPT (Neurosciences)

Sr. Physiotherapist

Kalyani Dasari is a Senior Physiotherapist in the Department of Physiotherapy & Wellness at Virinchi Hospitals. Over the past seven years, she has been a practicing physiotherapist providing physiotherapy and rehabilitation services to both out patients and in patients. Prior to joining Virinchi Hospitals, she worked as a Coordinator in the Department of Orthopaedics at Century Hospital and as a Senior Physiotherapist at Care Hospitals, Hyderabad. She has been providing care in Orthopedics, Neurosciences, Cardiology, Pre and Post surgeries as well as Acute Care (Medical and Surgical Intensive Care Unit). She is capable of delivering timely, patient specific physical therapy interventions and treatment in line with individual specific goals of the patients. In addition, she is experienced in extending services in home care physiotherapy. She is a life member of Indian Association of Physiotherapy (IAP). Group Therapy for various wellness programs is her special interest.

MEET OUR EXPERTS

Dr. Uday Ranganath P.N

BPT, MPT - Ortho (Musculoskeletal Sciences)

Physiotherapist

Uday Ranganath is a Physiotherapist in the Department of Physiotherapy & Wellness at Virinchi Hospitals. He has overall three years' experience in physiotherapy. Prior to joining Virinchi Hospitals, he worked as a physiotherapist at New Lifeline Hospital and Kamineni Hospital, Hyderabad. He is experienced in implementing instant pain relieving techniques and providing rehabilitation care to post-surgical cases including knee and hip replacements and arthroscopy, ICU management, and treating all kinds of musculoskeletal and neurological conditions.

He is well-versed in clinical aspects of various musculoskeletal conditions, assessment and evaluation of musculoskeletal disorders and implementation of advanced physiotherapeutic techniques for musculoskeletal diseases. He is an expert in advanced techniques including kinesiology taping, Mulligan mobilization, dry needling and neurodynamics. Providing precise treatment for acute and chronic musculoskeletal conditions is his area of interest. He has published articles in International Journal of Physiotherapy and presented papers at several national and international conferences.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

VIRINCHI DIFFERENTIATOR EVEN FOR A SIMPLE TEST LIKE BONE DENSITOMETRY

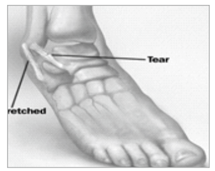
BMD @ VIRINCHI

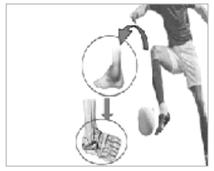
- Enhances dose efficiency and achieves excellent precision and patient throughput in spine, femur and total body measurements
- Measurements are fast and non-invasive
- Minimize the amount of radiation
- Offers Telemetry

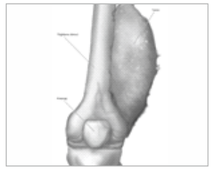
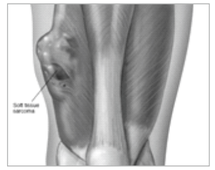
THERAPEUTIC APPLICATIONS

- Diagnose osteoporosis
- Predict fractures
- Monitor response to treatment
- Identification and assessment of vertebral deformations
- Hip Assessment
- Lateral spine BMD
- Overall BMD





- Fracture care and trauma
- Foot and ankle injuries
- Sports injuries
- Limb deformity
- Osteosarcoma
- Ewing's sarcoma and chondrosarcoma
- Soft tissue sarcomas

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

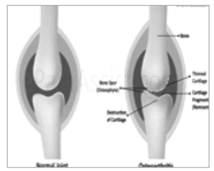
TREATMENTS AND THERAPIES OFFERED

VIRINCHI ADVANTAGE

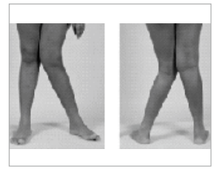
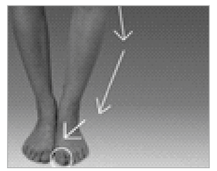
- Integrates three systems into one and revolutionizes endoscopic visualization technology
  - Has a true Ultra HD 4K programmable camera which provides the highest quality image
  - LED lighting
  - Image management with an intuitive graphical user interface in a tablet
- Faster recovery
- Increase the rate of surgical success due to less trauma to the connective tissue
- Less scarring, because of the smaller incisions

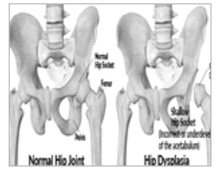
THERAPEUTIC APPLICATIONS

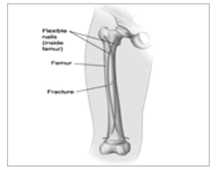
- In treating orthopedic conditions including torn floating cartilage, torn surface cartilage, ACL reconstruction, and trimming damaged cartilage
- In treatment of meniscus ruptures at knee, anterior and posterior cruciate ligament ruptures, intraarticular fractures, cartilage lesions, repetitive dislocations in shoulder, rotator cuff ruptures, shoulder impingement syndrome
- In the treatment of acetabular labral tears, loose bodies, chondral injuries to the joint, and septic arthritis









- Osteoarthritis
- Rheumatoid arthritis
- Infective arthritis
- Traumatic arthritis
- Osteotomies- Knock knees and bowlegs
- Congenital talipes equinovarus (CTEV)
- Hip Dysplasia
- Fracture Management with Flexible Nails

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Form is function

TREATMENTS AND THERAPIES OFFERED

virinchi HOSPITALS Cell Correct

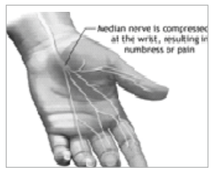
ORTHO DRILLS

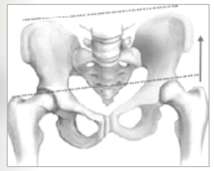
VIRINCHI ADVANTAGE

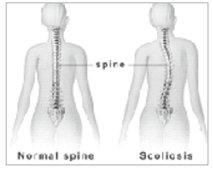
- Advanced motor technology
- Reduced vibration and enhanced hand piece control
- Increased cutting speed
- Stationary blade shaft significantly reduces the potential for soft tissue damage
- Non-oscillating blade shaft and variable speed control precisely trims and shapes bone for implants

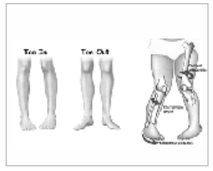
THERAPEUTIC APPLICATIONS

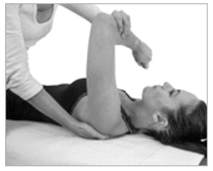
- During Knee replacement
- Hip surgery
- While delivering improved reaming, drilling and tunneling performance in joint procedures
- For surgeries requiring bone drilling such as for screws and steel wires and internal or external fixators insertion









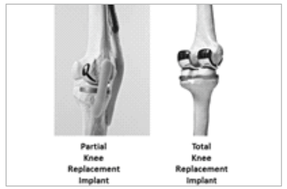


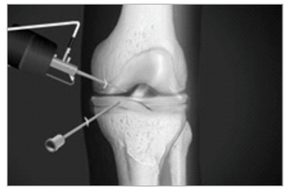
- Aches after caesarean or normal delivery
- Anterior Cruciate Ligament
- Back and neck pain
- Carpel tunnel syndrome
- Exercise advice for pregnancy and new mothers
- Flat feet
- Gross motor delays
- Muscle tone problems
- Orthopaedic conditions
- Parkinson's Disease
- Pelvic joint pain
- Plagiocephaly
- Postural problems
- Respiratory problems
- Scoliosis
- Torticollis
- Urine and Bowel Incontinence
- Weakness and stretching of the abdominal muscles
- Wrist pain
- In toeing/out toeing

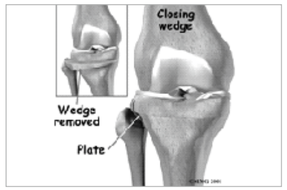
Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

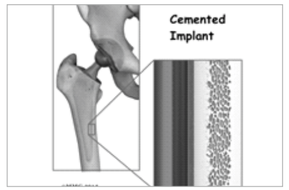
Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

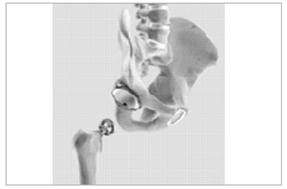
POST OPERATIVE CARE

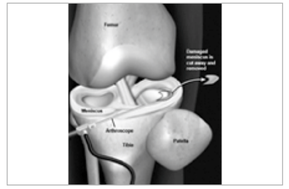












- Partial Knee Replacement
- Total Knee Replacement
- Revision Knee Replacement
- Knee preservation surgery
- Osteotomy
- Cartilage regeneration
- Cemented Total Hip
- Uncemented Total Hip
- Ceramic and Highly Cross Linked bearing surfaces
- Revision Hip Replacement
- Hip Preservation surgery
- Safe surgical dislocation
- Core decompression
- Hip osteotomies
- Dual mobility cuff
- Hemiarthroplasty
- Total Shoulder Replacement
- Reverse Shoulder
- Total Elbow Replacement
- Total Ankle Replacement
- Meniscectomy
- ACL reconstruction including All Inside Repair
- PCL/MCL and Multi-ligamentous Reconstruction
- Revision ACL surgery
- Cartilage Regeneration

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

TREATMENTS AND THERAPIES OFFERED

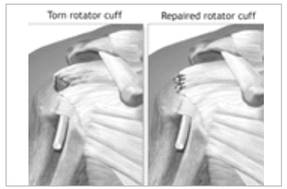
PHYSIOTHERAPY

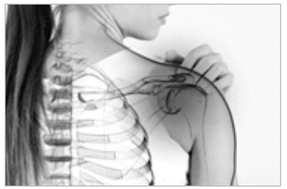
PARALLEL WALKING BARS
An invaluable aid to walking and related rehabilitation exercises, these Height Adjustable Adult Parallel Walking Bars are 3m long and made from coated steel. They can be used by people weighing up to 140 kgs (22 st).

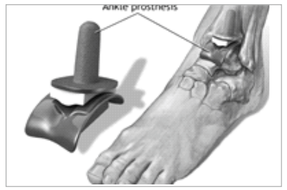
CRUTCHES ELBOW & AUXILLARY
Elbow crutches have an open cuff that grips the user's forearm during use, auxiliary crutches are assigned to patients in recovery from ankle or knee injuries.

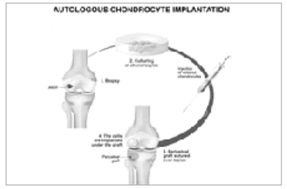
EXERCISE CYCLE
A stationary bicycle device with saddle, pedals, and some form of handlebars arranged as on a bicycle, but used as exercise equipment rather than transportation.

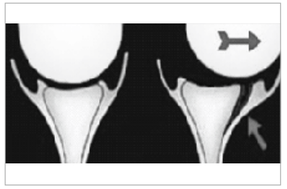
EXERCISE BANDS
They are a great addition to any strength training routine or rehabilitation program and come in a variety of sizes, lengths, and strengths.









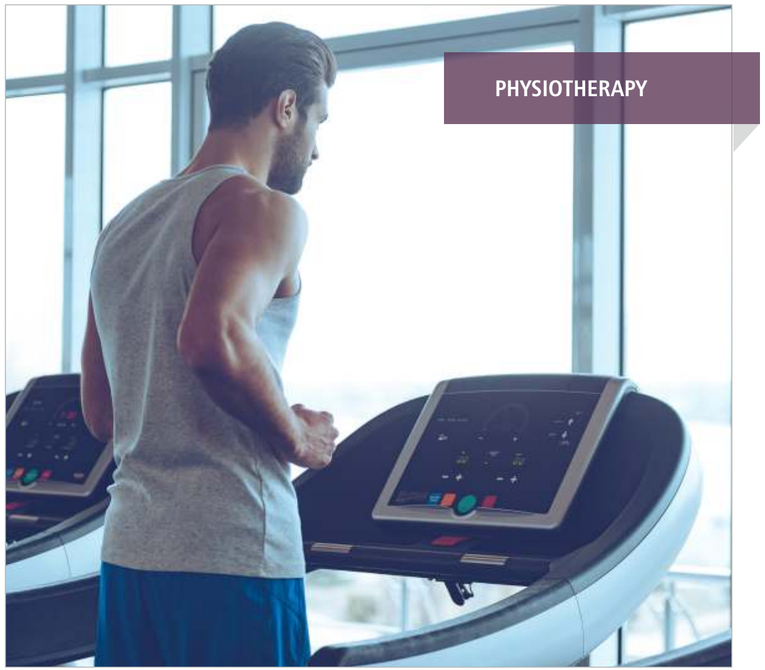


- Bankarts and Shoulder Stabilization
- Rotator Cuff Repair+
- LATARJET Procedure
- Frozen shoulder
- Shoulder hemiarthroplasty & replacement
- Subacromial decompression (acromioplasty)
- High Tibial and Distal Femoral Osteotomy
- Osteochondral Allografts Transports Surgery (OATS)
- Mesenchymal Stem Cell Procedures with BMAC, PRP, and Autologous Cartilage Implantation(ACI)

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

TREATMENTS AND THERAPIES OFFERED

virinchi HOSPITALS Cell Correct



PHYSIOTHERAPY

STANDING FRAME
It is an assistive technology that can be used by a person who relies on a wheelchair for mobility.

TENS DUAL
The TENS (Transcutaneous Electrical Nerve Stimulation) Dual Channel Digital Pain Reliever is easy to use and helps to ease aches and pains.

TREADMILL
Treadmill is a game changer in physical therapy rehabilitation. Whether you're a patient or an athlete dealing with lower body injuries, chronic pain or neurological conditions that inhibit mobility, you can benefit from the unweighting capabilities.






- Amputation
- Biofeedback
- Bladder retraining
- Burns and plastic surgery
- Cardiovascular care
- Critical care
- Electrical stimulation for pain management
- General rehabilitation
- Hand therapy
- Health services for elderly people
- Musculoskeletal physiotherapy Musculoskeletal rehabilitation
- Neuro-physiotherapy
- Neurological rehabilitation

TREATMENTS AND THERAPIES OFFERED

virinchi HOSPITALS Cell Correct

PHYSIOTHERAPY

QUADRICEP TABLE
The Quadriceps table is a resistive exercise equipment for muscles especially quadriceps muscle.

TREATMENT TABLE
Specifically designed for clinicians, some models offer full adjustment for height. All the tables and accessories offer patients easy access and comfort.

COMBINATION THERAPY
Combination therapy units allow for electro- and ultrasound therapy in one space- and cost-saving device. They facilitate so-called simultaneous treatments, i.e. concomitant application of electrical stimulation and ultrasound, with cumulative therapy effect.






- Oncology and palliative care
- Orthopaedic rehabilitation
- Orthotics
- Paediatric physiotherapy
- Patient family education and counselling
- Pelvic floor exercises
- Post-operative joint replacement rehabilitation
- Pulmonary rehabilitation
- Respiratory care
- Respiratory Physiotherapy
- Stroke rehabilitation
- Therapeutic exercises for cardiac and non-cardiac cases
- Vaginal weights
- Women's health (obstetrics & gynaecology)

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

BIOMARKER BIG DATA FOR PERSONALIZED MEDICINE

virinchi HOSPITALS Cell Correct

BIOCHEMICAL

ELECTROPHYSIOLOGICAL

HISTOPATHOLOGICAL

ANATOMICAL

PATHOGEN SCREENING

PHENOTYPIC & GENETIC

IMMUNOLOGICAL

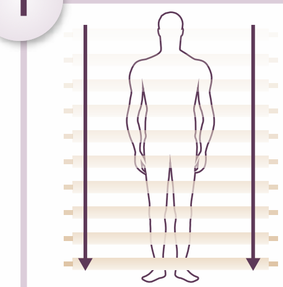
VIRINCHI'S PROPRIETARY BE-HAPPI™ DIAGNOSTICS FRAMEWORK

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

BIOMARKER BIG DATA FOR PERSONALIZED MEDICINE

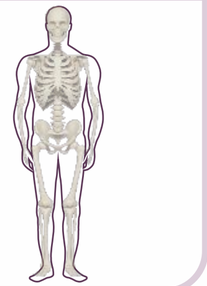
virinchi HOSPITALS Cell Correct

1



EVERY MEMBER UNDERGOES A MASTER HEALTH CHECK UPON JOINING

2



IF PROBLEM IN ORGAN SYSTEM DISCOVERED

3

BE-HAPPI™

VIRINCHI'S BE-HAPPI™ FRAMEWORK IS APPLIED TO THE ORGAN SYSTEM AND TREATMENT PLANNED ACCORDINGLY

Biomarkers are biological indicators that provide us with a means of understanding the relationship between measurable biological processes and clinical outcomes for evaluating health and wellness. Further, the study of biomarkers enables us to devise treatment options for all disorders and diseases since they enhance our understanding on physiology and anatomy of an individual.

Proper functioning of every organ and system in our body is essential for us to live a healthy and good quality of life as we progress through various phases of our life. Any deviation from performing one function may result in disordered physiological processes and will be associated with either symptomatic or asymptomatic disorder. If the disorder is manifested in the form of symptoms and signs, then it can be identified accurately with the help of specific diagnostics tests. However, asymptomatic disorders that typically do not show any clinical symptoms and signs could gradually lead to secondary complications affecting one or multiple systems that may be difficult to understand and treat

Therefore it is very essential to understand the health of all the organs and systems of our body irrespective of respective/overall disorderliness with or without any symptoms in order to understand thoroughly whether any function is impaired or progressing towards impairment with the help of comprehensive diagnostic tests. Virinchi's proprietary BE-HAPPI™ evaluates the health status of every organ and organ system from a biochemical, electrophysiological, histological and cytological, anatomical, pathogenic, phenotypic and genotypic, immunological perspectives. The influences of these factors on biomarker levels also indicate disorder's onset and/or its progression either as an independent or comorbid consequence.

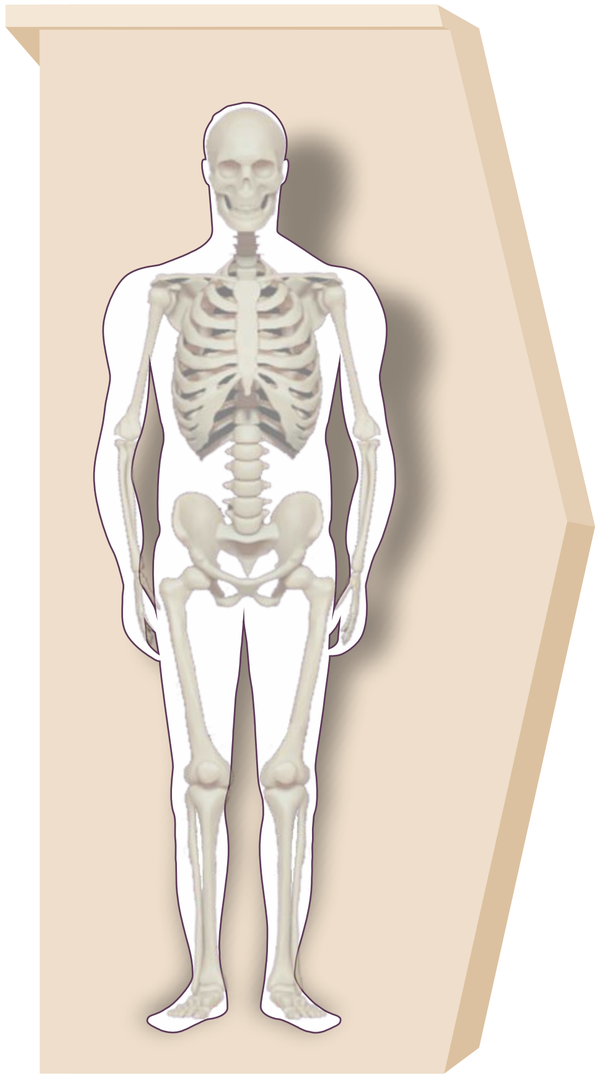
With advanced and sophisticated technology housed in world-class infrastructure, and strong rooting in evidence-based medicine, Virinchi is well-positioned to undertake this comprehensive analysis to derive accurate and predictable diagnosis, thus enabling its physicians to devise individual-specific predictive, preventive and reactive therapies and interventions.

VIRINCHI'S PROPRIETARY BE-HAPPI™ DIAGNOSTICS FRAMEWORK

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

BIOMARKER BIG DATA FOR PERSONALIZED MEDICINE

virinchi HOSPITALS Cell Correct



BIOCHEMICAL

Many of the biological molecules including nucleic acids, proteins, lipids, fats and naturally occurring small chemicals that are formed due to metabolic and physiological activities serve as important contributors to understand the health of every organ and system in our body; and also help us to evaluate the nature and degree of disorderliness across systems and organs with the help of analytical, cytological, histochemical and immunological methodologies.

PARAMETERS TESTED @ VIRINCHI

5-HT(5-hydroxytryptamine), Ammonia, ASPN (asporin) , Beta-myosin heavy chain (MYH11), Bradykinin, BST2(Bone Marrow Stromal Cell Antigen 2), C2C, Cartilage oligomeric matrix protein (COMP), Chondroitin sulphate 846 (CS846) , CIIM, Citrullinated protein (CP), Coll2-1, Coll2-1NO2, Cortisol, Creatine Kinase, CRP, C-telopeptide collagen II, DeamidatedCOMP (D-COMP), ESR, Free hydroxyproline, Glucosyl-galactosyl pyridinoline, Glutathione (GSH), Glutathione peroxidase (GTX), HDL-high density level cholesterol, Hyaluronic acid, IL-12(Interleukin -12), IL1R2(Interleukin 1 Receptor Type 2), IL-3(Interleukin-3), IL-4(Interleukin-4), IL6(interleukin -6), Isoprostanes (F2-isoP), Keratan sulphate, Lactate , Lactate dehydrogenase (LDH), LDL-low density level cholesterol, MMP9(matrix metalloproteinase 9), Nerve growth factor (NGF), N-oleoylethanolamine, N-palmitoylethanolamine (PEA), N-propeptide of collagen I, N-stearoylethanolamine (SEA), Oxipurines, P5CS (pyrroline 5 carboxylate synthase), PIIANP(Type II A Collagen N-Propeptide), PIICP (Procollagen II C propeptide), Protein carbonyl, PYCR1(pyrroline- 5- carboxylate reductase 1), pyruvate, Rheumatoid factor(RF), Serum PINP, Substance P, Thiobarbituric acid reactive substances (TBARS) , Triglycerides

ELECTROPHYSIOLOGICAL

Electrodiagnostic biomarkers provide information on electrical activity (action potential) due to native or altered electrophysiology of cells and tissue or their response towards electrical stimuli (evoked potential). Typically, electrocardiography (ECG), electroencephalography (EEG), and electromyography (EMG) are employed to measure the electrical activity values and help to diagnose, evaluate, and treat the individual with impairments of the neurologic or neuromuscular or muscular systems.

PARAMETERS TESTED @ VIRINCHI

Muscle function by recording muscle activity-Surface EMG, Fine wire recordings in muscle-Intramuscular EMG, Miniature end-plate potentials, Nerve conduction studies (EMG) : Latency, Conduction velocity, Amplitude, Nerve conduction velocity (NCV)

HISTOPATHOLOGICAL

Cytopathology and Histopathology observations of cells and tissue allow the understanding of gross structural, physiological and molecular changes at the cell and tissue level respectively. These microscopic observations with grading and staging are vital to understand the response of cells due to external stimuli or DNA changes which either might result into a transient change or pathological consequence requiring suitable surgical or medical or radiological therapy.

PARAMETERS TESTED @ VIRINCHI

Carbonic anhydrase type 3, Muscle Biopsy: Atrophic angulated myofibers, Target fibers, Nuclear clumps, Myogenin (myogenic factor 4), Myopathic muscle biopsy: Endomyisal fibrosis, Moth-eaten fibers, Eosinophilic inclusions, Ragged red fibers , Soft tissue lesions , Osteoclast-rich lesions, Synovial Biopsy :, Blood vessel proliferation, Macrophage cell infiltrates

ANATOMICAL

Imaging techniques offer sensitive and precise visualization and also digitization of anatomical features of organs and systems of the body. It helps the patient or individual to undergo a gamut of pain free investigations, non-invasively. And these biomarkers can be measured using either radiological or non-radiological modalities such as, X-ray, CT, Ultrasonography, Electroencephalography, Magnetoencephalography, and Magnetic Resonance Imaging in order to provide us with either qualitative or quantitative measure of the anatomical features and physiological processes such as blood flow.

PARAMETERS TESTED @ VIRINCHI

2D and 3D fractal dimension, Bone marrow lesion (BML) size, Bone marrow lesion volume, Bone quality score, Bone shape, Cartilage morphology and attrition , Changes in cartilage (morphometry), Delayed gadolinium enhanced MRI of cartilage, Effusion, FSA, JSW (X), Mechanical resistance and elasticity, Medial tibiofemoral compartment (MTFC) joint space narrowing (JSN), Meniscus morphology, Minimum JSW, Multi-voxel MRS (IMCL/EMCL ratio), OARSI JSN, Osteophyte volume, qBOLD (muscle oxygenation), QuAntitative trabecular morphometry, Sub-chondral bone, Synovial inflammation using diffusion-weighted imaging , Synovitis, Trabecular number, Trabecular spacing , Trabecular thickness, Volumetric quAntification

PHENOTYPIC & GENETIC

Changes brought about to the DNA, RNA and their respective derivatives due to germline or somatic mutations influence an individual's overall existence and susceptibility or resistance towards a wide variety of disease causing infectious agents. Understanding the underlying molecular details with the help of advanced/next generation sequencing technologies provides insights into either devising a therapeutic or corrective intervention.

PARAMETERS TESTED @ VIRINCHI

o ADAMTS2(ADAM metallopeptidase with thrombospondin type 1 motif 2), ADAMTSL4(ADAMTS like 4), AIM2, alpha-actin -2(ACTA2), ANO5(anoctamin 5), CAPN3(Calpain 3), CAPN8(Calpain 8), CD9(CD9 Molecule), COL11A1 (collagen XI Alpha1) , COL1A1(collagen typeI Alpha1), COL1A2(collagen type I alpha 2 chain), COL5A1(collagen type V alpha 1 chain), COL5A2(collagen type V alpha 2 chain), collagen-repair marker TIMP-1, CSF3R(Colony Stimulating Factor 3 Receptor), CTGF(Connective Tissue Growth Factor), CTX-II(Human Cross Linked C-Telopeptide Of Type II Collagen), CX3CR1(C-X3-C Motif Chemokine Receptor 1), CXCL12(C-X-C Motif Chemokine Ligand 12), DLX3(Distal-less homeobox3), DPP4(Dipeptidyl Peptidase 4), DR3, DYSF(dysferlin), EGF(epidermal growth factor), FGF7(Fibroblast Growth Factor 7), FGFR3(Fibroblast Growth Factor Receptor 3), Fibuline-3 fragments (Fib3-1 and Fib3-2), FKRP(Fukutin Related Protein), GDF5 (growth differentiation factor 5), GM-CSF(Granulocyte-macrophage colony-stimulating factor), Helix-II, HOX, HOXB9(HomeoboxB9), IFI44L(Interferon Induced Protein 44 Like), IFIT1(Interferon Induced Protein With Tetratricopeptide Repeats 1), IFIT3(Interferon Induced Protein With Tetratricopeptide Repeats 3), IFNGR2(Interferon Gamma Receptor 2 (Interferon Gamma Transducer 1)), IL6R(Interleukin 6 Receptor), LTBP-2 (latent transforming growth factor beta binding protein 2), MAP3K5(mitogen activated protein kinase kinase kinase 5), MCP-1(Monocyte chemoattractant -1), MCP-3(Monocyte Chemotatic Factor-3), MED12(Mediator Complex Subunit 12), MEFV(MEFV, pyrin innate immunity regulator), MIP-1Beta (macrophage inflammatory protein 1 beta), MMP20(matrix metalloprotenaise 20), MX1(MX Dynamin Like GTPase 1), NOTCH1, PECAM1 (Platelet and Endothelial Cell Adhesion Molecule 1), RASGRF2, RIN2 (Ras and Rab interactor 2), RUNX(Runt Related Transcription Factor), sarcoglycan alpha (SGCA), sarcoglycan beta (SGCB), sarcoglycan delta (SGCD), SKT(Sickle tail) , STAT1(signal transducer and activator of transcription1), TGFBR(Transforming growth factor beta receptor), TGFBR2 (Transforming growth factor beta receptor 2), THBS2(thrombospondin 2) , TIINE, TIMP2(TIMP Metallopeptidase Inhibitor 2), TRIM22(Tripartite Motif Containing 22), uCTXI, uNTXI, UPF3B(UPF3 Regulator Of Nonsense Transcripts Homolog B (Yeast)), USP18(Ubiquitin Specific Peptidase 18), WISP3(WNT1 Inducible Signaling Pathway Protein 3), XPO6(exportin -6), YKL-40 (Chitinase-3-like protein 1 (CHI3L1))

PATHOGEN SCREENING

Pathogen screening helps to find out either presence or absence of all the relevant pathogenic microorganisms including - bacteria, fungi, viruses, mycoplasma and protozoans. This identification process allows the healthcare provider with specific information on every possible mode that can be implemented towards prevention, treatment and eradication. It also allows the physician to decide pathogen specific medication in suitable dosage and form for effective and safe elimination without causing any adverse effects to the affected patient.

PARAMETERS TESTED @ VIRINCHI

Alphaviruses, Borrelia burgdorferi, Epstein-Barr virus (EBV), Fusobacterium spp, Haemophilus influenzae , Human parvovirus B19, Neisseria gonorrhoeae, Neisseria meningitidis, Pasteurella multocida, Peptostreptococcus magnus, Propionibacterium acnes , Serratia marcescens, Spirillum minus, Staphylococcus aureus, Streptobacillus moniliformis, Streptococcus pyrogenes

IMMUNOLOGICAL

The immunologic Biomarkers provide insights into the body's response towards cancer, infectious diseases, immunization, immunodeficiency, allergies, asthma, autoimmunity, and other immune disorders. These features can be studied from variety of biological specimens by using highly advanced and high throughput immune assay systems. And these biomarkers also help to understand the extent of disease progression and probability of positive prognosis for a wide range of diseases.

PARAMETERS TESTED @ VIRINCHI

Antibodies to MPO(Myeloperoxidase), Antibodies to PR3, Anti–cyclic citrullinated peptide (CCP) Antibodies, Anti-extractable nuclear Antigen (Anti-ENA), Anti-Mi2 Antibodies, Antineutrophil cytoplasmic Antibodies (ANCA), Antinuclear Antibodies, Anti-SRP Antibodies , Anti-SSA Antibodies , Anti-SSB Antibodies , HIV Antibodies, IgG immunoglobulin

VIRINCHI'S PROPRIETARY BE-HAPPI™ DIAGNOSTICS FRAMEWORK

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

BIOMARKER BIG DATA FOR PERSONALIZED MEDICINE

virinchi HOSPITALS Cell Correct

VIRINCHI'S PROPRIETARY BE-HAPPI™ DIAGNOSTICS FRAMEWORK

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

CUSTOMISED KNEE REPLACEMENT

- A software technology platform that allows design of patient- specific implants and instrumentation
- Only customized posterior stabilized knee replacement system

VERITY EXTREMITY SCANNER

- To find subtle extremity fractures during the first visit to the clinic
- Provides fast 3D imaging at the point of care
- Intended for pre- and postoperative imaging
- Uses a significantly lower dose of radiation than full-body Cts
- Adapts to the patient with anatomy-specific imaging programs, movements, and carbon-fiber positioning trays

RIGHT TO SCIENCE @ ORTHOPAEDICS & PHYSIOTHERAPY

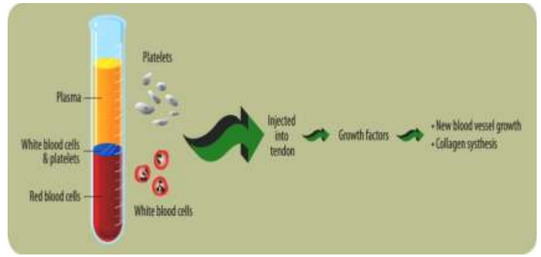
virinchi HOSPITALS Cell Correct

ROBOT GUIDED SURGERY

- Allows the surgeon to perform minimally invasive Surgery (MIS) in a very precise fashion
- Minimizes the need for radiation during the surgical procedure
- Decreasing tissue trauma, resulting in less bleeding, smaller scars, less pain and faster recovery
- Used for:
  - Scoliosis Correction Surgery
  - Vertebroplasty
  - Spine Biopsies

PLATELET-RICH PLASMA AND BONE MARROW CELL CONCENTRATE THERAPY

- Platelet rich plasma therapy, in which a patient's own platelets are spun out and harvested and then injected into the injury site to promote accelerated and focused healing of the soft tissue
- BMCC contains all of the growth and healing factors in PRP, along with concentrated "pluripotent" or stem-like cells which further contribute to the regenerative process
- Bone morphogenic protein, which stimulates the patient's ability to create more bone. Although helpful for treating many bone fractures, it has huge implications for spine fusion surgeries as it can be more reliable and require shorter hospital stays than traditional bone grafting techniques



Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

ALTERNATIVE TO LUMBAR SPINAL FUSION

- A mechanical device that is housed between two titanium plates, which allows axial rotation, lateral bending, extension and flexion
- Implant facilitates bending, straightening and twisting movements at the affected segment of the spine while blocking excessive posterior and anterior sagittal translation

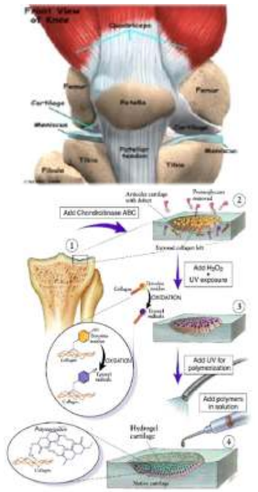
SCOLIOSIS CORRECTION SYSTEM

- Minimally invasive deformity correction system for patients with Adolescent Idiopathic Scoliosis (AIS).
- Requires:
  - Significantly smaller incision: ~10 centimeters vs. standard ~45 centimeters
  - Shorter surgery time: ~1 hour vs. 4-6 hours
  - Reduced length of stay (hospitalization): 2-3 days vs. 6-7 days

RIGHT TO SCIENCE @ ORTHOPAEDICS & PHYSIOTHERAPY
virinchi HOSPITALS Cell Correct

ENGINEERED CARTILAGE PRODUCTS FOR JOINT REPAIR

- Biomaterials have been developed to replace joint cartilage damaged from injury or arthritis
- Materials are surgically implanted into the joint with the intent to restore the damaged cartilage and avoid joint replacement surgery
- Advancements are being made for technologies that employ autologous and synthetic materials used for cartilage substitutes in joint reconstruction
- All replacement technologies must reproduce the delicate interplay between cellular, structural support and biomolecular elements that constitute normal cartilage



EXTRACORPOREAL SHOCKWAVE THERAPY

- Extracorporeal Shock Wave Therapy (ESWT) system is the ultimate solution for chronic orthopaedic indications
- Developed after extensive theoretical expertise and practical experience in the field of shock wave therapy, as one of its masterpieces and one of the most significant devices in the orthopaedic field
- A treatment used in physical therapy, orthopaedic, urology and cardiology. The shockwaves are abrupt, high amplitude pulses of mechanical energy, similar to sound waves, generated by an electromagnetic coil or a spark in water

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals

Big Data to bed side

DEPARTMENT OF ANAESTHESIA & PAIN MANAGEMENT

virinchi HOSPITALS
Cell Correct

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

Dr. Muralidhar Joshi

MBBS, MD(Anaesthesiology), DNB(Anaesthesiology)

Director - Pain Management Centre

Head - Department of Anaesthesia

Dr. Muralidhar Joshi is Head Department of Anaesthesia and Director Pain Management at Virinchi Hospitals. He has more than 20 years' experience in anaesthesia and pain management. He has worked as a Consultant Anaesthesiologist, Critical Care & Pain Management, Apollo Hospitals, Jubilee Hills, Hyderabad; DNB Faculty & Guide for DNB Students in the Department of Anaesthesiology, Critical Care & Pain Relief, Apollo Hospitals and Director Pain Management & Consultant Anaesthesiologist, Kamineni-Wockhardt Hospitals, Hyderabad. He received 'Academic Excellence Award for the year 2010 by the Indian Society of Anaesthesiologists' National body at Lucknow.

In 2005, he presented a new technique of Percutaneous Epidural Adhesiolysis by Seldinger Technique in failed Back Surgery Syndrome (FBSS) at the 20th Annual National Conference of Indian Society for Study of Pain at Pune and performed the first Epiduroscopy in South India for viewing the contents of epidural space and facilitating adhesiolysis of epidural adhesions. In 2010, he initiated an international program in pain management at Kamineni Hospitals to offer training to overseas doctors. He introduced the first Android Application in the world on interventional pain management in collaboration with Medico vibes in 2012.

His areas of interest include acute and chronic pain management. He believes that research-focussed environment at Virinchi Hospitals will be crucial to come out with a path breaking discovery, which would be a boon to the world.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

DEPARTMENT OF ANAESTHESIA & PAIN MANAGEMENT

FOREWORD

The department for Anaesthesia and Pain management at Virinchi Hospitals strives towards providing outstanding and efficient quality of services while keeping patient's care and comfort as its primary objectives.

Anaesthesiologists at Virinchi Hospitals ensure a thorough pre-operative assessment on the patients during any critical surgery and make informed medical judgments related to treating and regulating changes in critical life functions such as breathing, heart rate, blood pressure; as they are affected while the surgeries are being performed. These specialists are also involved in diagnosing and treating any complications that arise due to surgery.

The Departments of Anaesthesiology at Virinchi Hospitals have board-certified Doctors, who received extensive training in all areas of anaesthesiology; and the staff members have additional expertise and training in providing anaesthesia as well as pain control during labour and delivery.

Both anaesthesia and pain management departments have multiple sub disciplines to address cardiac, orthopaedic, thoracic, vascular, neurological, obstetric, and paediatric surgeries.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

Dr. Umamaheshwara Rao. W

MBBS, DA, DNB (Anaesthesiology), FIPM

Sr. Consultant Anaesthesiologist & Interventional Pain Specialist

Dr. Umamaheshwara Rao is a Consultant Anesthesiologist in the Department of Anesthesia and Pain Management Centre at Virinchi Hospitals. He has over 11 years' experience in his field. Prior to joining Virinchi Hospitals, he worked as a Consultant Anesthesiologist at Kamineni Hospitals for about seven years. He believes in better pain management including acute and chronic pain and safety during preoperative period. Pain relief for patients with acute and chronic pain and anaesthesia for high risk patients are his areas of interest.

Dr. Sachin Dileep Joshi

MBBS, MD (Anaesthesiology), FIPM

Sr. Consultant

Dr. Sachin Dileep Joshi is a Senior Consultant in the Department of Anaesthesia and Pain Management Centre at Virinchi Hospitals. He has overall 12 years' experience in his field. Prior to joining Virinchi Hospitals, he has worked as a Senior Consultant in the Department of Anaesthesia at Kamineni Wokhardt Hospitals. Acute and chronic pain management, USG guided peripheral nerve block, fluoroscopy guided block and cancer pain management are his areas of interest.

MEET OUR EXPERTS

Dr Amarnath Reddy B

MBBS, MD (Anaesthesiology)

Consultant Anaesthesiologist & Pain Specialist

Dr. Amarnath Reddy is a Consultant in the Department of Anaesthesia and Pain Management Centre at Virinchi Hospitals. He has overall 10 years' experience in his field. Prior to joining Virinchi Hospitals, he has worked as a Consultant Anaesthesiologist at Kamineni Hospitals for 7 years and as a Registrar in Anaesthesiology and Critical Care at Wokhardt Hospitals for 3 years. Regional anaesthesia, TIVA, ultrasound applications in regional anaesthesia and pain management are his areas of interest. As a part of anaesthesia and pain management team of Virinchi Hospitals, he would like to ensure safest anaesthesia services and pain-free, comfortable recovery of patients.

Dr. B Madhukar Goud

MBBS, DA, DNB (Anaesthesiology), FIPM

Registrar

Dr. Madhukar Goud is a Junior Consultant in the Department of Anaesthesia and Pain Management. He has overall five years' experience in his field. Prior to joining Virinchi Hospitals, he worked at Kamineni Hospital and Osmania Medical College Hyderabad. He is well-versed in Ultrasound-guided nerve blocks, Central Venous Catheterizations and pain management.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

MEET OUR EXPERTS

Dr. Ershad Mohammed Sohail

M.B.B.S., M.D. (Anesthesiology)

Consultant Cardiac Anaesthesiologist

Dr. Ershad Mohammed Sohail is a Registrar in the Department of Pain Management at Virinchi Hospitals. He has worked as a Senior Resident at NIMS Hospital and Registrar at Mediciti Hospitals. He has hands-on experience in Ultrasound-guided blocks and Fluoroscopic and CT-guided procedures related to chronic pain management. He is also trained in 2D Echo Basic Procedures. His areas of interests are acute and chronic pain management including learning and implementing new techniques of pain management.

While working in rural hospitals (RIMS Hospital, Adilabad) with minimal equipment, he has gained the ability and confidence to work under difficult conditions – owing to which, he has resuscitated many patients on several occasions.

Dr. Priyanka Kini

MBBS, MD, (Anaesthesia)

Registrar

Dr. Priyanka Kini is Registrar in department of Pain Management at Virinchi Hospitals. She has a total experience of three years. Before joining Virinchi Hospitals, she worked as senior resident in department of Anaesthesia at Kasturba Medical College, Manipal for two years.

Dr. Priyanka passed her M.B.B.S. from Kasturba Medical College in 2010 and continued in same college to complete M.D. by year 2014.

Regional Anaesthesia, Pain, Critical Care, and Palliative Care are her special areas of interest. Dr. Priyanka attended many national conferences and one international one too.

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

TREATMENTS AND THERAPIES OFFERED

UNIQUE FEATURES

- Color alarm indicators, and up to 2 waveforms (Paw and SpO2) on a brilliant color display which allows you to quickly respond to changes in your patient's status and access the information you need
- Mechanical ventilation with preset TV and dynamic compensation, which ensures the tidal volume you set is the volume delivered
- Optional extended battery life of up to 360 minutes, which allows you to continue your case, even during extended procedures in unstable power environments
- New, redesigned ergonomic canister that's larger and easier to open and close
- Integrated and more convenient SpO2 monitoring with a built-in SpO2 module easily accessible on the front of your machine
- Sleek integrated design suited for constrained environments
- Simple user interface for improved workflows

DIAGNOSTIC AND THERAPEUTIC APPLICATIONS

- Allergies
- Pregnancy
- neurological conditions, such as epilepsy or stroke
- Ulcers or heartburn
- eating disorders
- loose teeth, dentures, bridgework
- cardiac surgery
- cardiothoracic anesthesiology
- neurosurgery

Management of acute and chronic pain

- Diagnosis of acute and chronic pain
- Injections and nerve blocks
- Spinal-cord stimulation
- Spinal-infusion systems

- Abdominal Pain
- Central pain states-like pain following stroke, spinal cord injury
- Chronic pain which is generalized and not responding to other therapy
- General Anaesthesia
- Regional Anaesthesia, including Epidural, Spinal and Nerve Block Anaesthesia

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

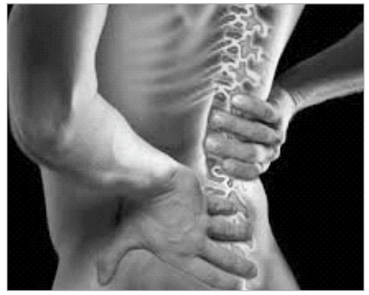
VIDEOLARYNGOSCOPE

UNIQUE FEATURES & BENEFITS

- Provides a high quality image of the vocal cords while minimizing soft tissue manipulation
- Light weight, self-contained and battery operated
- The robust, full-colour, smudge-proof, non-glare display can resist repeated cleaning and normal use wear and tear

DIAGNOSTIC AND THERAPEUTIC APPLICATIONS

- Laryngoscopy for tracheal intubation
- endotracheal intubation
- Airway Management
- General anesthesia or cardiopulmonary resuscitation
- Surgical procedures on the larynx or other parts of the upper tracheobronchial tree



- Headache / Migraine
- Chronic pancreatitis
- Lower back pain
- Muscle pain
- Musculoskeletal Pain
- Myofascial pain and fibromyalgia pain
- Combined General and Epidural Anaesthesia
- Conscious Sedation or Monitored Anaesthesia Care (MAC)

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

TREATMENTS AND THERAPIES OFFERED

ULTRASOUND MACHINE WITH REGIONAL ANESTHETIC SOFTWARE

UNIQUE FEATURES

- Allows exceptional visibility of the needle and neural sonoanatomy
- Real-time compound imaging displays striking levels of tissue differentiation that are virtually free of artifact
- Advanced adaptive image processing reduces speckle, haze and clutter
- Tissue Specific Imaging optimizes hundreds of scanning parameters to the specific transducer and anatomy

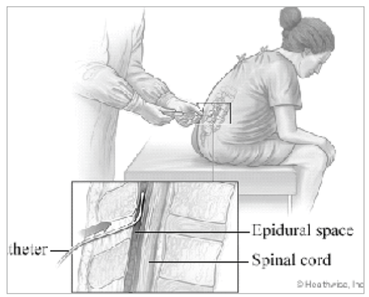
DIAGNOSTIC AND THERAPEUTIC APPLICATIONS

- Ultrasonic guidance procedures
- Examining several internal organs including: Heart, liver etc

Studying nerve blocks:

1. Sciatic Nerve
2. Axillary artery and nerve plexus
3. Femoral nerve

- Surgical Orthopedic Procedures
- Complications During Procedural Block
- Complications Throughout Perioperative Period



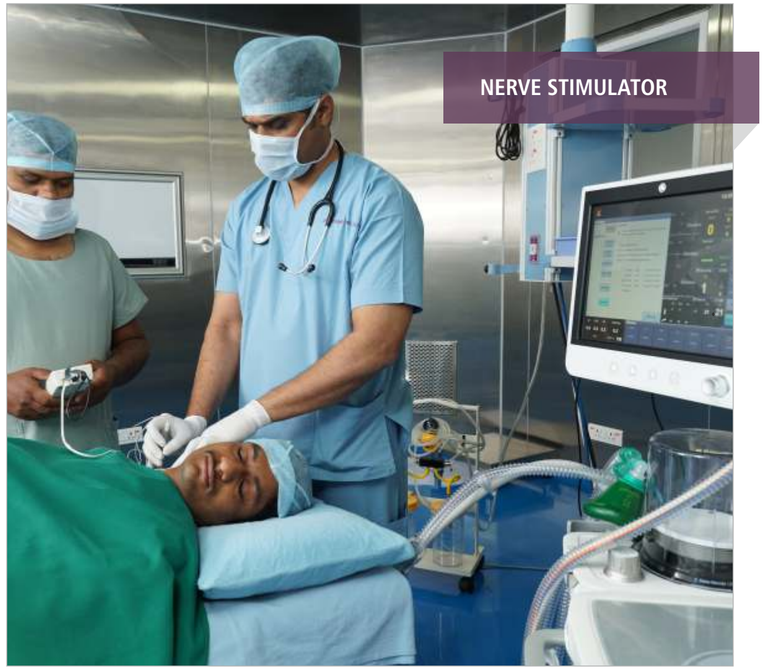
- Knee pain and Joint pains
- Cancer pain
- Neck pain
- Pain following acute trauma like RTA(Renal Tubular Acidosis), post operative pain
- Painful diabetic neuropathy
- Peripheral neuropathy
- Anesthesia for Cardiac Bypass Surgery
- Anesthesia for Pediatric Surgery

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

Improved Agents of Sleep

TREATMENTS AND THERAPIES OFFERED

virinchi HOSPITALS Cell Correct



NERVE STIMULATOR

UNIQUE FEATURES & BENEFITS

- Patented mode of functionality called SENSe, (Sequential Electrical Nerve Stimulation) can be turned on to help find the nerve sooner and maintain the motor response for longer
- Pulse duration can be changed, (01, 03 and 10 Ms) to target motor/ sensory nerve component for greater flexibility
- Disconnect and current threshold alarms provide audible alerts to reduce patient risk
- Resistance monitoring shows relationship between actual patient and desired current level for increased safety
- Digital ratchet dial for precise and tactile current adjustment
- Quick access buttons allow direct switching of key parameter values during procedure

DIAGNOSTIC AND THERAPEUTIC APPLICATIONS

- Avoiding a nerve injury
- Treating muscle, joint, or bone problems
- Treating osteoarthritis or fibromyalgia
- Treating low back pain, neck pain, tendinitis, or bursitis
- Treating sudden (acute) pain, such as labor pain, and long-lasting (chronic) pain, such as cancer pain

- Neuropathic pain like Diabetic neuropathy
- Sports injury pains
- Post stroke pains
- Phantom limb pain-pain after amputation of limbs
- Post thoracotomy pain
- Reflex sympathetic dystrophy
- Vascular pain syndrome
- Obstetrical analgesia and anaesthesia
- Perioperative pain management
- Intraoperative transoesophageal echocardiography

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/

COMPUTER-ASSISTED PERSONALIZED SEDATION DEVICE

- A computer-assisted personalized sedation device that delivers the drug propofol for minimal-to-moderate sedation
- The device provides comprehensive patient monitoring and limits the depth of sedation by adjusting drug delivery accordingly
- System includes a Bedside Monitoring Unit (BMU) that stays with the patient from before the procedure through post-procedure recovery, a Procedure Room Unit (PRU) that contains the propofol infusion pump controller, the display monitors, and disposable devices for single-patient use

AUTOMATIC ASSESSMENT OF THE EEG DURING ANAESTHESIA AND SEDATION

- This method allows for adjusting the dosages of anesthetics to the patients' age, gender and general physical condition
- During anesthesia, this method helps to avoid EEG stages which are associated with an increased risk of awareness. On the other hand, over dosages can be avoided

RIGHT TO SCIENCE @ ANAESTHESIA & PAIN MANAGEMENT

virinchi HOSPITALS Cell Correct

AUTOMATED ANESTHESIA SYSTEM

- Administer drugs and monitor vital signs for patients undergoing surgery
- Is a sort of humanoid anesthesiologist that thinks like an anesthesiologist, analyses biological information and constantly adapts its own behavior, even recognizing monitoring malfunction

Virinchi Hospitals, Virinchi Circle, Road #1, Banjara Hills, Hyderabad-500 034, India.
040 4699 9999, 4699 9900 www.virinchihospitals.com contact_us@virinchihospitals.com www.facebook.com/VirinchiHospitals/