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.

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RIGHT TO SCIENCE CLUB

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Neurology

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Understanding thoughts through Electrical signals

DEPARTMENT OF NEURO CARE

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FOREWORD: NEUROSURGERY

The Department of Neurosurgery at Virinchi Hospitals, is commited to provid personalised specific care, while offers evidence-based treatment approach in the management of several disorders that affect brain and spinal cord. We have a team of expert neurosurgeons, the team deals with a host of diseases affecting the brain, spine and the peripheral nerves.

Our motto is to treat and restore all sorts of neurological disorders precisely without disturbing the basic functions of the body. To ensure this, we bring together an experienced team of doctors and the latest and sophisticated technology for diagnosis and treatment.

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Dr. Subodh Raju

MS, M Ch (Neurosurgery) AIIMS, New Delhi

Sr. Consultant Neurosurgeon and Minimal Access / Endoscopic Brain & Spine Neurosurgery

Head Department of Neurosurgery

Dr Subodh Raju is a Consultant Neurosurgeon and Spine surgeon heading the Department of Neurosurgery at Virinchi Hospitals. He has worked as a consultant neurosurgeon at Saumya Apollo Hospital, Vijayawada; Image Hospital Hyderabad, Kamineni Hospitals, Hyderabad. He is also a visiting consultant at Rainbow Children's Hospital, Hyderabad.

Dr Subodh Raju specializes in various cranial and spinal surgeries

- Cerebrovascular Surgeries -all types of anterior circulation aneurysms, AVM's, ECA-MCA bypass surgeries, cerebral revascularisation
- Intracranial Tumour Surgeries (gliomas, meningiomas, adult and paediatric infratentorial tumours)
- Surgeries for spinal tumours and congenital spinal disorders
- Cerebello Pontine Angle Tumours Surgeries (Vestibular schwannomas and others with intraoperative neurophysiological monitoring)
- Neuroendoscopy – 3rd Ventriculostomy: excision of intraventricular colloid cyst, arachnoid cyst, and ependymoma
- Endoscopic skull base surgeries
- Endoscopic disc surgery for lumbar PIVD and selected cases of cervical PIVD
- Paediatric neurosurgery (intracranial tumours, congenital spinal Dysraphisms)
- Craniofacial Corrective Surgeries for Craniosynostosis in children
- Minimally Invasive neurosurgery (MINS) and Minimally Invasive spinal surgeries (MISS)
- Spectrum of Neurotrauma and Spinal Trauma (including spinal instrumentation)

He has studied the use of stem cells in spinal cord injuries under national guidelines for stem cell research published by ICMR 2013. He has been postgraduate teacher and a guide and facilitator for neurosurgery students for their thesis/research works.

MEET OUR EXPERTS

Dr. Vishakha Patil

DNB (Gen. Surg), M Ch (Neurosurgery), MRCS (UK)

Consultant Neurosurgeon & Spine Surgeon

Dr. Vishaka Patil is a consultant Neurosurgeon & spine surgeon in the Department of Neurosurgery at Virinchi Hospitals. She has an experience of working in best institutes like AIIMS New Delhi & IPGMER -SSKM Kolkata. She believes in systematic approach towards patient management & Quality work by thorough examination of all patients to reach the root of a cause so that it can be treated effectively & efficiently, avoiding unnecessary investigations.

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Mohammed Ateequr Rahman

MBBS, MD, DNB (Neurology), FINS)

Consultant Interventional Neurologist & Stroke Specialist
In charge Stroke Neurocritical Care & Neurointervention

Dr Mohammed Ateequr Rahman is a Consultant Interventional Neurologist & Stroke Specialist in the Department of Neurology at Virinchi Hospitals. His total 21 years of Medical practice includes seven years of neurology and five years of interventional Neurology. He has worked with reputed hospitals of Hyderabad and other cities in India under different leading capacities for interventional neurology & stroke. He has experience of teaching undergraduate, postgraduate & doctoral students in neurology, medicine & anatomy. He trained undergraduate and postgraduate students for Internal Medicine from Jan 2000 to March 2003 at Government Medical College, Nanded. He has worked as lecturer in the Department of Anatomy at BJ Medical College, Pune. He was with Care Institute of Neurosciences as a teacher and guide for DNB neurology candidates from April 2010 to July 2015.

Dr Mohammed Ateequr Rahman after completing his residency in neurology completed his post-doctoral fellowship in interventional neurology and stroke that has seemingly augmented the neurological skills he'd spent years perfecting. Not many established physicians get cross trained as such, but he did exactly that. Neurointerventional techniques resolve brain and spinal conditions using non-surgical ways. He has realized the importance of adapting to changing technology, which will make new minimally invasive and nonsurgical techniques a reality. This technology will have a major impact on the field of Neurology and Neurosurgery. He believes in combining techniques from different activity to achieve a broader range of skills to treat diseases.

DEPARTMENT OF NEURO CARE

FOREWORD: NEUROLOGY

Virinchi Hospitals is offering the latest and most sophisticated neuro-care options under the insightful and skilful expertise of accomplished and trusted physicians. The department also ensures access to the most advanced technologies that are made available from remarkable research breakthroughs and cutting edge scientific developments.

The team of neurologists, neurosurgeons, specially trained nurses, therapists and support team members provide precise diagnosis and effective treatment that are very much tailored to the patient's neurological conditions.

Certainly, our Hospital is unprecedentedly a patient-centred in implementing advanced technologies, research, and tailor-made patient education to deliver highest quality care and consideration.

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Dr. Daljeet Kaur

MBBS, MRC Psych (UK)

Consultant Psychiatrist

Dr. Daljeet Kaur is a Consultant Psychiatrist at Virinchi hospitals. She is a UK trained psychiatrist with 11 years of experience in psychiatry. She is also an Honorary Consultant Psychiatrist at Global Health Alliance, U.K. She has successfully managed cases of stress, adjustment disorder, depression, anxiety, OCD, psychosomatic problems, drug problems, psychosis, Schizophrenia, Bipolar disorder, Delirium and other psychiatric conditions caused due to physical problems. Dr Daljeet Kaur has a special interest in developmental disorders in children like Autism, memory problems in elderly population like dementia, post-traumatic stress disorder (PTSD) and women's mental health. Dr Daljeet Kaur also help patients to improve self-esteem and confidence, offers counselling for marriage and other relationship difficulties, offers parents support and strategies for behavioural problems in children.

FOREWORD: PSYCHIATRY

Department of Psychiatry and Psychology at Virinchi Hospital treat all types of disorders, such as depression, bipolar disorder, addiction and chronic pain, as well as some of the rarest and most challenging conditions. And we claim ourselves to be the leaders in psychotherapy and medication management for behavioural healthcare needs.

We offer comprehensive diagnostic services including a complete clinical interview and a series of assessment measures to children, adolescents and adults experiencing psychological difficulties due to neurodevelopmental disorders, brain injury, toxic exposure (alcohol, lead), psychotic disorders, learning difficulties, etc.

Our Mission is to improve the well being of the patients we serve by providing expert quality care, a comprehensive array of services, convenient and timely access, delivered with exceptional services and compassion.

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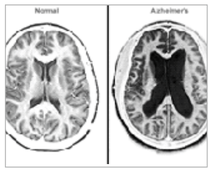
NEURONAVIGATION

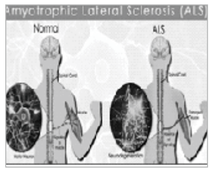
UNIQUE FEATURES

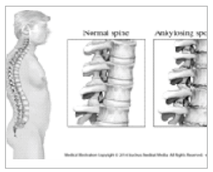
- Allows convenient visualization of cortical surface, skull, vessels, etc. for improved intra-operative orientation
- Provides volume rendering, shaded volume rendering, silhouette and contours various display modes
- Aids in navigation with or without head holder with the integration of proprietary patient reference options that eliminate line of sight issues
- Makes a complicated DTI process as simple as a routine activity, by providing automatic and fast tensor calculations while preparing fMRI activation maps
- Includes a frameless and passive biopsy solution

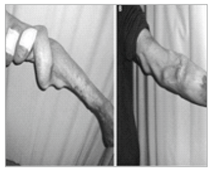
THERAPEUTIC APPLICATIONS

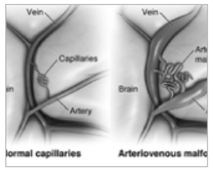
- Brain tumors
- Glioma
- Epileptic encephalopathies

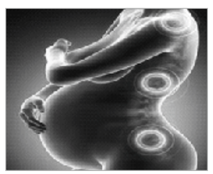








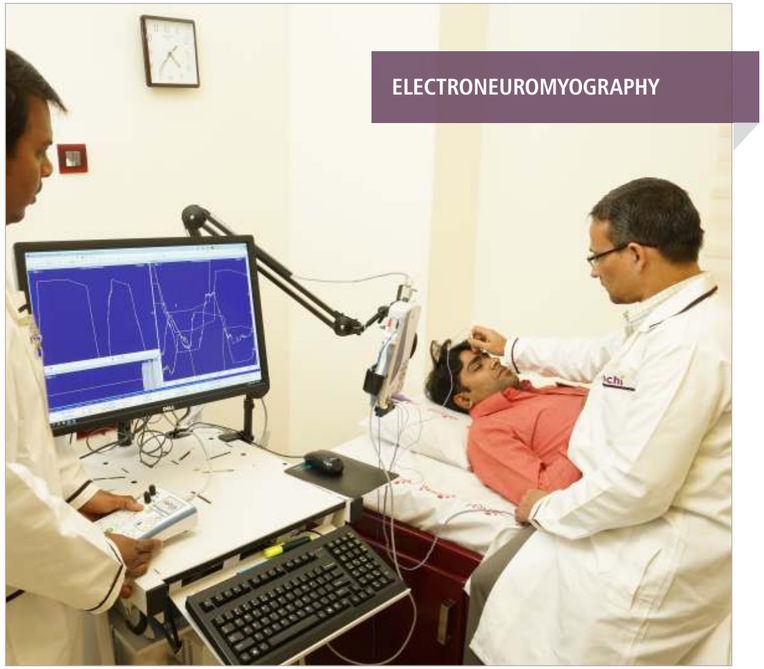




Conditions Treated

- Aging spine
- Alzheimer's Disease
- Amyotrophic Lateral Sclerosis
- Ankylosing spondylitis
- Arteriovenous fistula (AVF)
- Arteriovenous malformation (AVM)
- Back & Neck Pain
- Back injuries
- Back pain due to pregnancy

TREATMENTS AND THERAPIES OFFERED



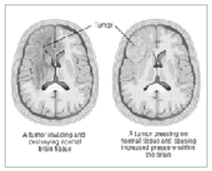
ELECTRONEUROMYOGRAPHY

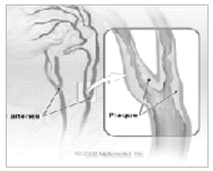
UNIQUE FEATURES

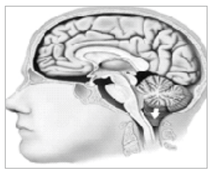
- Minimized of patient discomfort
- Portable or desktop configurations for Nerve Conduction Studies, Electromyogram exams
- Improved workflow for faster exams
- Easily communicates with information systems
- Single Fiber EMG – Feature-rich program exhibits premium recording quality together with time-saving acquisition and exceptional analysis
- Convenient features like customized reports and tables which optimize reporting ability
- Perform Evoked Potential testing for somatosensory, auditory, motor and cognitive

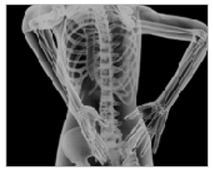
THERAPEUTIC APPLICATIONS

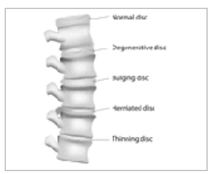
- Preclinical diagnosis of musculoskeletal deficits at an early stage
- Development of motor deficits in infectious disease associated with damage to peripheral nerves or muscles
- Evaluation of the dynamics of the disorder of peripheral nervous system

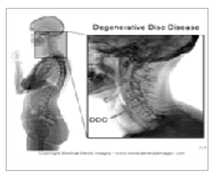


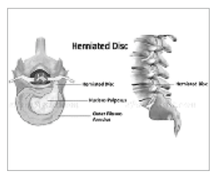












Conditions Treated

- Brain Tumours
- Carotid artery disease
- Cerebral (brain) aneurysm
- Chiari malformation
- Chronic back pain
- Coccyx fracture
- Degenerative disc disease
- Degenerative disease (cervical spine, disc)
- Disc Herniation & Disc Disease

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TREATMENTS AND THERAPIES OFFERED

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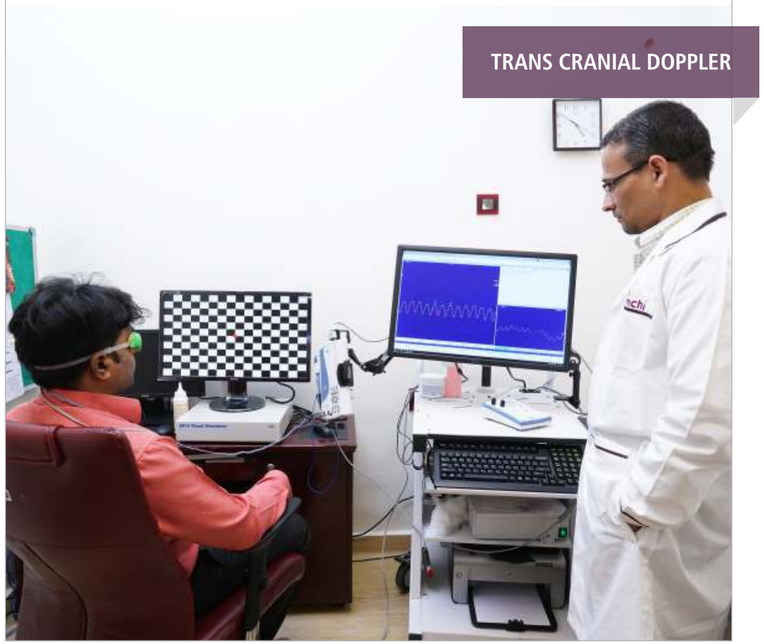
TRANS CRANIAL DOPPLER

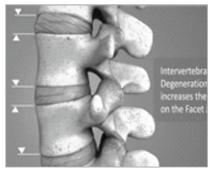


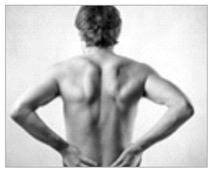
UNIQUE FEATURES

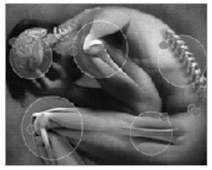
- Diagnostic & monitoring evaluations of cerebral vessels
- Has unilateral & bilateral monitoring options
- Has Simplified user interface, Doppler sensitivity, customized protocols & partially automated specialty tests
- Detects emboli with variable thresholds

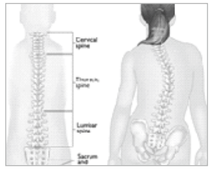
THERAPEUTIC APPLICATIONS

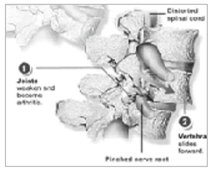
- Subarachnoid hemorrhage (SAH)
- Transient Ischemic Attack (TIA)
- Sickle Cell Anemia
- Embolism
- Cerebrovascular Accident (CVA)
- Cerebral Circulatory Arrest(Brain death)
- Intracranial vasospasm

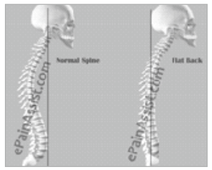


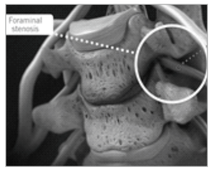












Conditions Treated

- Double Vision
- Degenerative Spondylolisthesis
- Epilepsy
- Facet joint syndrome
- Failed back and failed fusion syndrome
- Fibromyalgia
- Flatback syndrome
- Foramen stenosis
- Complex spine problems (associated with growth disorders)

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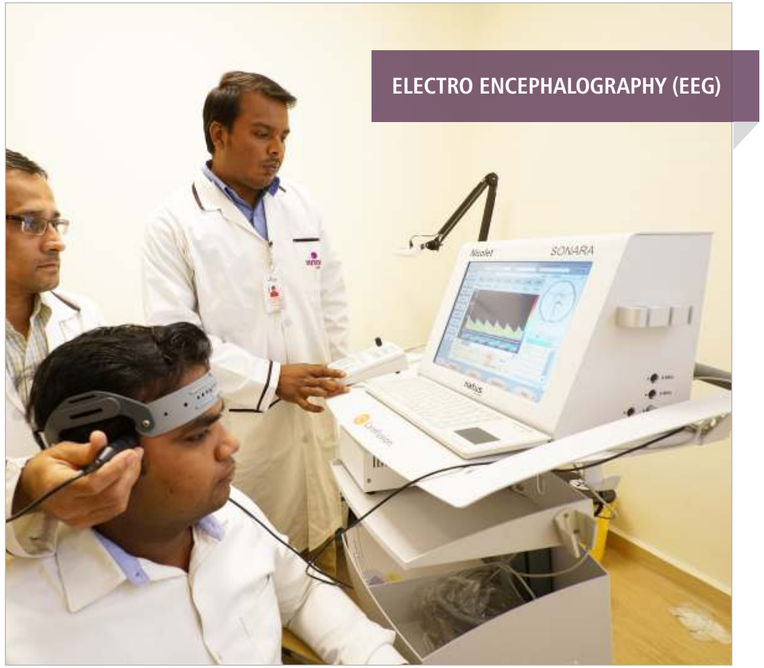
ELECTRO ENCEPHALOGRAPHY (EEG)

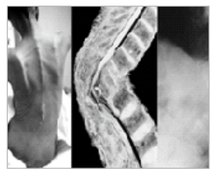


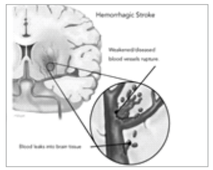
UNIQUE FEATURES

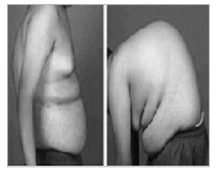
- High resolution digital video
- Advanced analysis software options
- Powerful Amplifiers
- Robust and flexible Server database

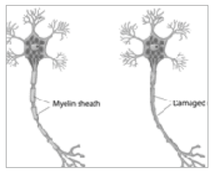
THERAPEUTIC APPLICATIONS

- Sleep disorders (such as narcolepsy)
- Head injuries
- Brain infection
- Brain hemorrhage
- Alzheimer's disease
- Degeneration of brain tissue
- Metabolic conditions that affect brain tissue
- Hormonal conditions that affect brain tissue
- Stroke
- Brain tumor
- Brain death
- Epilepsy









Conditions Treated

- Headaches and migraines
- Herniated, prolapsed or ruptured discs
- Huntington's Disease
- Infections of the spine
- Ischemic and hemorrhagic stroke
- Kyphosis
- Movement disorders
- Autoimmune Disorders
- Multiple sclerosis

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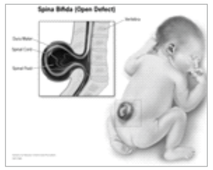
ICU BRAIN MONITORING SYSTEM

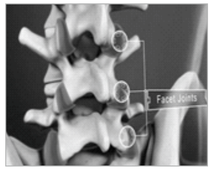
UNIQUE FEATURES

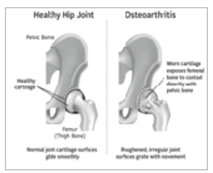
- Comprehensive system with integrated video, Electroencephalogram, SpO2, alerts and real time capabilities
- Includes integrated, real time trend package for automated seizure detection ,burst suppression analysis ,brain analysis and more
- Integrated with vital sign monitor
- Continuous impedance monitoring checks signal quality and indicates which electrodes need attention
- Alerts are attached to major events with automatic notifications
- The small footprint is ideal for the crowded ICU bedside

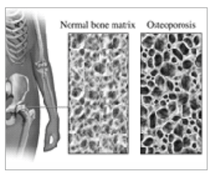
THERAPEUTIC APPLICATIONS

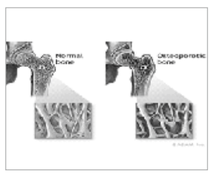
- Acute brain injury
- Stroke
- Aneurysms











Conditions Treated

- Myelomeningocele (spina bifida)
- Neck pain and injury
- Neurologic Vision Loss
- Neuromuscular disorders
- Osteoarthritis
- Osteoarthritis of the facet joint
- Osteoarthritis of the hip
- Osteoporosis
- Osteoporosis induced by taking corticosteroids
- Acupuncture
- Behavioral medicine
- Back Braces
- Chiropractic
- Conservative medical care
- Drug Therapy
- Electrotherapy
-

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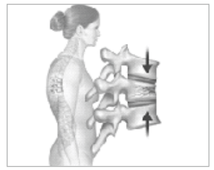
NERVE MONITORING(NIM ECLIPSE)

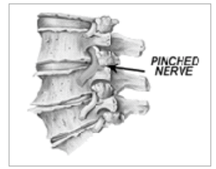
UNIQUE FEATURES

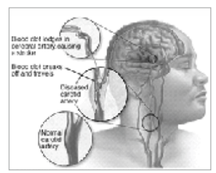
- Monitoring during bipolar cautery
- Artifact detection software
- Real-time continuous monitoring
- Control from the surgical field
- Multiple USB ports for easy documentation

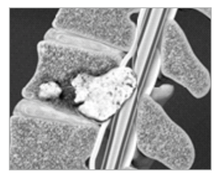
THERAPEUTIC APPLICATIONS

- Spine surgery
- Brain surgery









Conditions Treated

- Osteoporotic compression fractures
- Parkinson's Disease
- Peripheral neuropathy
- Pinched nerve
- Piriformis syndrome
- Rheumatoid arthritis
- Spinal tumors (Primary/benign/ metastatic)
- Stroke
- Tourette syndrome
- Trauma
- Interventional Pain Management
- Pain Management
- Physical Therapy
- Stress Management
- Artificial disc replacement
- Anterior lumbar interbody fusion (ALIF)
- Anterior cervical discectomy and fusion

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TREATMENTS AND THERAPIES OFFERED

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SURGICAL MICROSCOPE

UNIQUE FEATURES

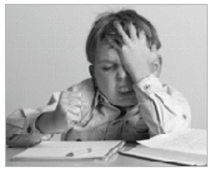
- Brilliant Visualization
- Innovative intraoperative fluorescence modules
- High Performance
- Smooth device handling via touchscreen, handgrips, mouth switch and wireless foot control panel
- Superior functionality with the Foldable Tube
- Auto Balance™ and Auto Drape for fast set-up
- Interacts with current and emerging workplace technologies (neuromonitoring)
- Creates an optimal OR experience with workflow conducive features
- Integrated interface for navigation and neuromonitoring

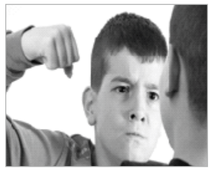
THERAPEUTIC APPLICATIONS

- Neurological procedures
- Aneurysm
- Spinal Surgery
- Plastic and reconstructive Surgery
- Cranial Surgery
- Microdiscectomy









Conditions Treated

- Acting out behaviour
- Anger
- Anxiety
- Attention deficit/hyperactivity disorder (ADHD)
- Autism
- Dementia
- Drug or alcohol use
- Schizophrenia
- Panic disorder
- Kyphoplasty
- Microdecompression
- Posterior lumbar interbody fusion (PLIF)
- Scoliosis treatment
- Video-Assisted Thoracic Surgery (VATS)
- Minimally Invasive Spine Surgery
- Adaptive driving

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TREATMENTS AND THERAPIES OFFERED

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IPC WITH DRILLS

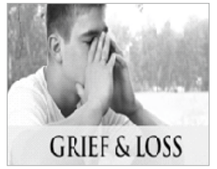
UNIQUE FEATURES

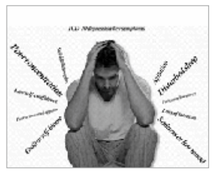
- Easy-to-use touchscreen menu for each handpiece
- Maximum visualization for anterior skull base
- Remote control for irrigation
- Integrated facial nerve monitoring
- Multifunction Footpedal
- Inferior Turbinate Blade

THERAPEUTIC APPLICATIONS

- Spinal Surgery
- Cranial Surgery










Conditions Treated

- Bipolar disorder
- Depression
- Domestic violence
- Family problems
- Grief and loss
- Impulse control disorders
- Mental Illness
- Mood disorders
- Physical or sexual abuse
- Aquatic therapy and services
- Occupational therapy
- Recreation therapy
- Speech language pathology

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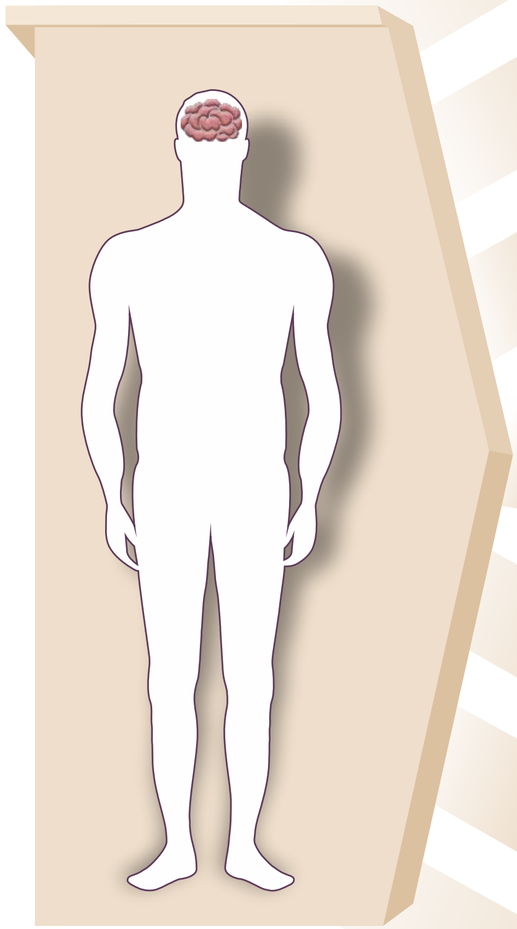

BIOCHEMICAL

ELECTROPHYSIOLOGICAL

HISTOPATHOLOGICAL

ANATOMICAL

PATHOGEN SCREENING

PHENOTYPIC & GENETIC

IMMUNOLOGICAL

VIRINCHI'S PROPRIETARY BE-HAPPI™ DIAGNOSTICS FRAMEWORK

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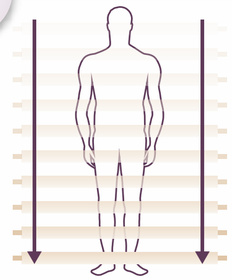

EVERY MEMBER UNDERGOES A MASTER HEALTH CHECK UPON JOINING

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.

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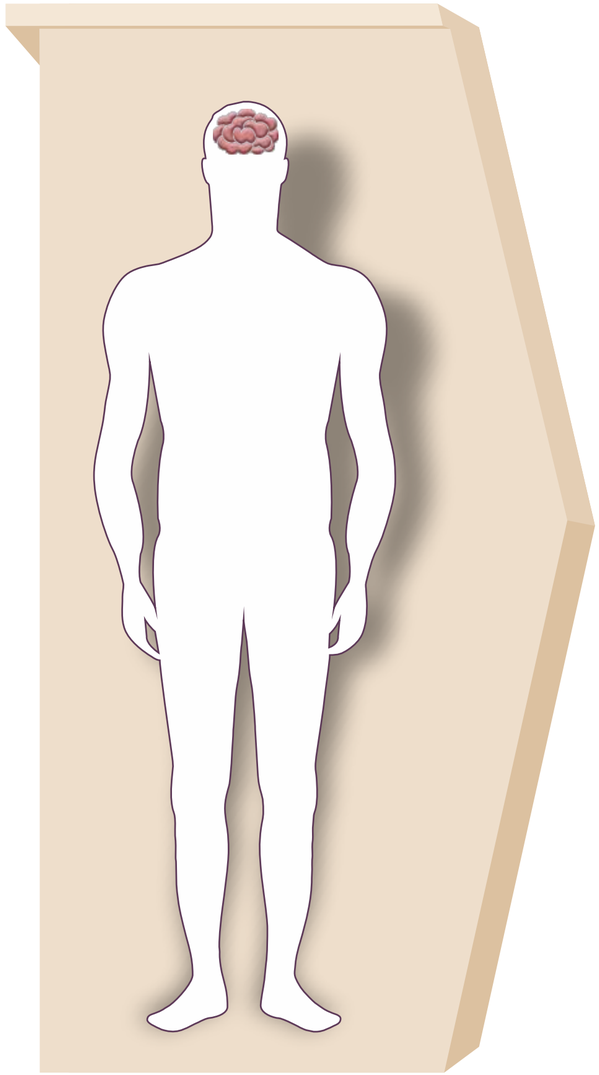

BIOCHEMICAL

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

3-nitrotyrosine, acetylcholine, acetylcholinesterase (AChE), Acetyl-CoA acetyltransferase (ACAT-1), Adrenocorticotropic hormone (ACTH), Alpha Synuclein, Alpha-ACT (Anti chymotrypsin), Apolipoprotein A-IV, Apolipoprotein E [APOE], Apoliprotein A-1, C reactive protein (CRP), Catechol-Omethyltransferase, Cathepsin L preproprotein, Cholesterol, Creatine kinase B-type (CKB), Cystatin B, Dihydropyrimidinase-like 2 protein, Doublecortin, Enolase, Estradiol , F2isoprostanes, Fatty acid binding protein 3 (FABP3), Fatty acid binding protein 5, Fatty acid binding protein 7, Folic acid, Follicle stimulating hormne, Free T3,T4, Galectin-1, Gelsolin, Glial fibrillary acidic protein and its breakdown products(GFAP-BDP), Glial fibrillary acidic protein(GFAP), Glucogen synthase kinase 3, Glutamine synthetase, Glutathion S-transferase chain A, Glycerophosphocoline, Glycoprotein 130(Gp-130), Gonadotropin, Growth Hormone(GH), Haptoglobin, Hemeoxygenase 1, Hemopexin, Hp fragments, Hyperphosphorylated tau, Hypocretin, Insulin like growth factor, Iron regulating protein(IRP-2), Laminin, Leutinising hormone, Myelin basic protein, Nerve growth factor(NGF), Nestin, Neurocalcin, Neurofilament H(NF-H), Neurofilament proteins (NF), Neuroprostanes, Neurosin, PGF-Tau, Phosphocholine, Phosphorylated Tau(P-Tau), Phosphoserine phosphatase, Pituitary hormone insufficiency, Protein kinase C, Proteolipid protein, Sulfatide, Testosterone, Thyroid stimulating hormone(TSH), Tissue plasminogen activator (TPA), TTG (Tissue transglutaminase), Tumor necrosis factor alpha(TNF-alpha), Vascular endothelial growth factor(VEGF), Vitamin A, vitamin B12, Vitamin B6, Vitamin E, Beta 2 microglobulin

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

Brain stem lesion, Burst dicharge patterns-EMG, Coherence, Event-related oscillations (EROs), Event-related potentials (ERPs), Event-related spectral perturbances (ERSPs), Evoked potential by EEG, Nerve compound action potentials-Electroneuronography, Spasticity-EMG

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

Brain biopsy, Meningeal biopsy , p-tau, Synaptophysin

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

Cortical thickness, CSF dynamics, Gray matter volumetry, Iron concentration, Lesions segmentation, Myelin mapping

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

ALZAS, 5-Hydroxytryptamine Receptor 5A(HTR5A), Amyloid precursor protein (APP) , Anterior pharynx defective 1 homolog A (APH1A), Aβ, Aβ40, Aβ42, Aβ42:Aβ40, Beta defensin 6/7, Brain-derived neurotrophic factor(BDNF), Bromodomain Containing 1(BRD1), Calpactin I light chain, CAMP responsive element binding protein 1(CREB-1), Caspase-1, CLOCK, Collapsin response mediator protein family(CRMP), Colony stimulationg factor receptor 2 alpha(CSF2RA), Copine I, CREB-binding protein (CBP/p300), Cryptochrome Circadian Clock 1(CRY1), CSF A42, c-Tau, Disrupted in schizophrenia 1(DISC1) protein, DJ-1 protein, DNMT1, Elongator protein 3 (ELP3), Endothelial monocyte activating polypeptide II precursor (EMAP II), Fibroblast growth factor 14(FGF14), Fibroblast growth factor 4, Growth Associated Protein 43 (GAP43), Heat shock protein 27(Hsp27), Heat shock protein 60(HSP60), Heat shock protein 70(HSP70), Huntingtin (HTT) protein, IL1 gene complex, IL-6 receptor, Interleukin 1 Receptor Antagonist(IL1RN), Interleukin 2 receptor subunit alpha(IL2RA), Leucine-rich repeat kinase 2(LRRK2), Methylenetetrahydrofolate reductase[MTHFR] , Microtubule-associated protein tau (MAPT), NALP-1, Neuregulin-1, N-myc and caldesmon (l-CaD), NPAS2, PARK7, PARKIN, Phosphoprotein enriched in astrocytes-15(PEA-15), Presenilin 1[PSEN1] , Profilin-2, Prohibitin , PTEN-induced putative kinase 1(PINK-1), Ras-related C3 botulinum toxin substrate 1(Rac1), RE1-silencing transcription factor (REST), RhoA, RhoA GTPase, Secreted protein acidic and rich in cysteine(SPARC), Secretory Ca2+-dependent phospholipases A2 (sPLA2), Sirtuin 2(SIRT2), SPARC-like protein 1(SPARCL1), SRC family associated phosphoprotein, ß-site APP-cleaving enzyme 1/2(BACE1/2), ST13RNA, TAR DNA-binding domain protein (TDP-43) , Tau protein, Telomerase reverse transcriptase (TERT), Transforming growth factor beta(TGF-Beta), Tubuline-specific chaperone A, Tumor necrosis factor alpha receptor(TNF-alpha receptor), UCH-L1, VEGFB, Visinin-like 1(VLP-1), Zinc finger BED-type containing 4(ZBED4), αII-spectrin breakdown product 120(SBDP-120), αII-spectrin breakdown product 145(SBDP-145), αII-spectrin breakdown product 150(SBDP-150), α-synuclein(SNCA)

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

Borrelia burgdorferii, Clostridium tetani, Cytomegalovirus (CMV), Epstein-Barr virus, Haemophilus influenzae, HIV, Human herpesvirus-6 (HHV6), Mycoplasma species:M. fermentans, Naegleria fowleri, Neisseria meningitidis, Polio virus, Rabies virus, Salmonella cholerae, Salmonella typhimurium, Streptococcus pneumoniae

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

Anti cardiolipin Antibody,Anti-nuclear Antibody, Anti-B Antibodies, Antithyroid Antibody, Clostridium tetani Antibodies, Galactocerebroside Antibodies, Glial fibrillary acidic protein(GFAP) Antibodies, Myelin associated glycoprotein Antibodies, Myelin oligodendrocyte glycoprotein Antibodies, Salmonella cholerae suis Antibodies, Salmonella typhimurium Antibodies

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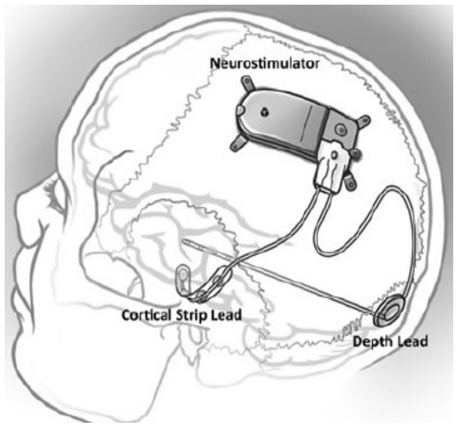
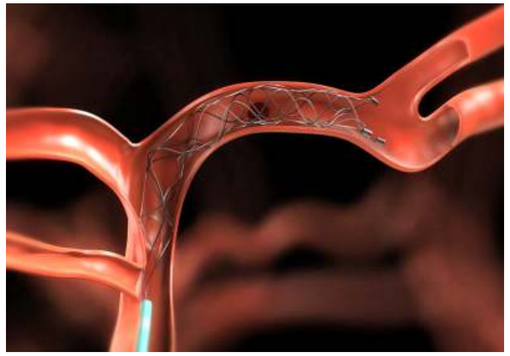
THE SEIZURE STOPPER



- Similar to a pacemaker that monitors and responds to heart rhythms, seizure stopper is the first and only medical device that can monitor and respond to brain activity
- Senses and records brain electrical activity, and delivers electrical stimulation where the seizures are suspected to originate
- Is intended to interrupt brain activity before the patient experiences clinical seizures

NEUROVASCULAR STENT RETRIEVERS



- Neurovascular stent retrievers with full-length visibility are built on proprietary technology which delivers strong clinical results and positive patient outcomes for acute ischemic stroke patients
- Neurovascular Stent Retrievers inserted into the body through a catheter and threaded through the blood stream, the tiny, wire-caged device seizes the blood clot and removes it

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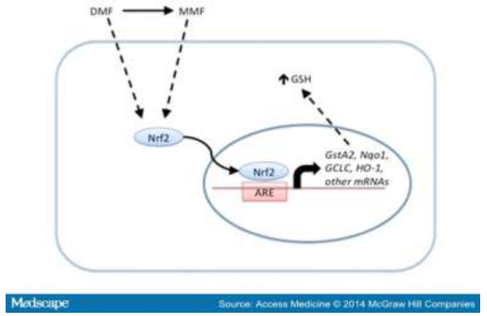
NEUROSTIMULATOR FOR PARKINSON'S DISEASE

- Uses electrical stimulation to manage some of the most disabling motor symptoms of Parkinson's disease
- Provides the unprecedented ability to control the stimulation field with innovative interleaved pulses and patient-specific therapy groups
- Advanced programming provides unprecedented ability to fine-tune stimulation and customize therapy
- Patient's medical history, therapeutic window parameters, and valuable information about actual therapy usage can be stored within the device

DIMETHYL FUMARATE

- Multiple Sclerosis is a chronic, inflammatory, autoimmune disease of the central nervous system that disrupts communication between the brain and other parts of the body
- The pharmacologic activity of dimethyl fumarate (DMF) is due to its active metabolite, monomethyl fumarate (MMF)
- MMF is thought to exert neuroprotective effects in patients with multiple sclerosis by activating the nuclear erythroid 2-related factor 2 (nuclear factor erythroid-derived 2-like 2; Nrf2) transcriptional pathway
- Dimethyl Fumarate causes a brief period of oxidative stress that results in the intraneuronal synthesis of the antioxidant glutathione (GSH) mediated through the Nrf2 pathway



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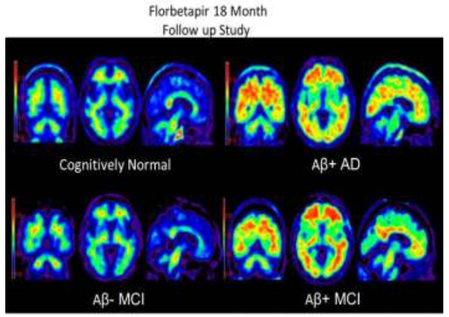
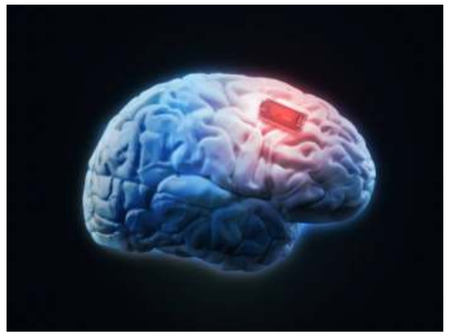
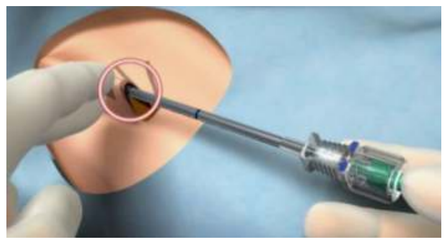
FLORBETAPIR



- Florbetapir, the new brain imaging compound, will make early detection of Alzheimer's disease possible by identifying the initiation of brain damage
- Injection of this radioactive molecular imaging compound "binds" to amyloid plaques, which is the telltale 'signature' characteristic of Alzheimer's
- Follow-up imaging allows physicians to effectively peer into the brain of a patient and assess

BUPRENORPHINE





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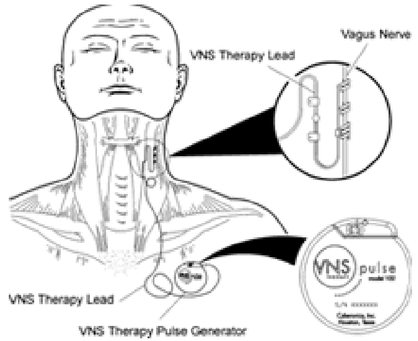
VNS THERAPY SYSTEM

- The device is a totally implanted vagus nerve stimulator (VNS) for the long-term treatment of chronic or recurrent depression
- A pulse generator, similar to a pacemaker, is surgically implanted under the skin of the left chest and an electrical lead (wire) is connected from the generator to the left vagus nerve.
- Electrical signals are sent from the battery-powered generator to the vagus nerve via the lead. These signals are in turn sent to the brain. To turn the stimulator off, the patient holds a magnet over the pulse generator
- The device is to be used only in patients 18 years of age or over with treatment-resistant depression (TRD). The VNS Therapy System is intended to reduce symptoms of depression



HANDHELD BRAIN HEMATOMA SCREENING DEVICE

- Is a portable screening device that uses Near-Infrared (NIR) technology to screen patients for intracranial bleeding, identifying those who would most benefit from immediate referral to a CT scan and neurosurgical intervention
- The application of infrared technology can be applied to know what's happening inside the human skull, even before symptoms appear
- There is no faster way to detect and triage subdural, epidural, and intracerebral hematomas. Infrascanner puts the power to heal in the palm of your hand

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