What Is Neuromuscular Disease?

Each year, neuromuscular disorders strike 1.5 million Americans, from infancy through adulthood. Neuromuscular disorders encompass a wide range of conditions, including neuropathies (either acquired or inherited); myopathies; muscular dystrophies; neuromuscular junction disorders, such as myasthenia gravis; and motor neuron disease, such as amyotrophic lateral sclerosis (ALS or Lou Gehrig’s Disease) and spinal muscular atrophy (SMA).

More than 40 different types of neuromuscular diseases have been identified. Many are debilitating, often progressive, and sometimes fatal. Weakness, paralysis, respiratory distress, and intractable pain caused by nerve and muscle diseases dramatically alter the quality of life of both patients and their families.

We accept most insurance plans, including Medicare, Medicaid and Managed Care Plans.
Neuromuscular Disorders Treated at the Center for Neuromuscular Disease

Specialists at the Neuromuscular Center offer comprehensive workups to achieve accurate diagnosis of nerve and muscle diseases and utilize state-of-the-art treatment modalities to optimize quality of life. Our team members are skilled in the diagnosis and the treatment modalities to optimize quality of life for individuals with neuromuscular disorders.

- Amyotrophic Lateral Sclerosis (ALS, or Lou Gehrig’s Disease), Spinal Muscular Atrophies (SMA) and Motor Neuron Disease
- Autonomic Nervous System Disorders
- Brachial and Lumbar Plexopathies
- Charcot-Marie-Tooth (CMT) and Other Hereditary Neuropathies
- Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)
- Entrapment Neuropathies (Carpal Tunnel, Ulnar Neuropathy, Peroneal Neuropathy, and Tarsal Tunnel Syndrome)
- Guillain-Barre Syndrome
- Hereditary and Acquired Ataxias
- Hereditary Spastic Paraplegia
- Inflammatory Myopathies (Polymyositis, Dermatomyositis and Inclusion Body Myositis)
- Muscular Dystrophies (Facioscapulohumeral (FSH) Dystrophy and Limb-Girdle Dystrophy (LGMD))
- Myasthenia Gravis (MG) and Lambert-Eaton (LEMS) Syndrome
- Myopathies (Endocrine, Drug-induced, Metabolic and Mitochondrial) and Cramping
- Myotonic Dystrophy and Myotonic Syndromes
- Neuropathies (Diabetic, Drug-induced, Inflammatory, Paraproteinemias)
- Periodic Paralysis
- Post-Polio Syndrome

Comprehensive Diagnosis

Accurate diagnosis and prompt, appropriate treatment are crucial for minimizing disability and maximizing quality of life for individuals with neuromuscular disorders.

- Our dedicated electromyography (EMG) laboratory combines the expertise of neurologists specializing in clinical neuromuscular disorders with state-of-the-art technology to offer you the latest in electrodiagnosis:
  - Single fiber EMG is performed only at specialized centers such as the Center for Neuromuscular Disease at SUNY Downstate. It is considered the best electrophysiologic test for Myasthenia Gravis.

Other technically advanced diagnostic procedures include:

- Autonomic Testing
- Quantitative Sensory Evaluation
- Transcranial and Lower Spinal Magnetic Stimulation (TMS)
- Stabilometry
- Spinal Fluid Analysis
- Muscle, Nerve and Skin Biopsies
- Motion Analysis (Human Performance Laboratory)
- Genetic Counseling and Screening

State-of-the-art computer technology allows for 3-dimensional anatomical mapping.

Neuromuscular consultations are useful for symptoms such as:

- Unexplained Stiffness
- Pain • Tingling
- Numbness • Foot Drop • Limb Weakness

Treatment Options

- Oral and Intravenous Medication
- Intravenous Immunoglobulin (IVIG)
- Therapeutic Plasmapheresis
- Chemodenervation — Botulinum Toxin (BOTOX® and Myobloc®) injections performed under EMG (electromyography) guidance
- Ancillary Services — Physical and occupational therapy, speech therapy, comprehensive pain management, orthotics

The Muscular Dystrophy Association Clinic

The Muscular Dystrophy Association (MDA) Clinic, under the direction of Yaacov Anziska, MD, is sponsored by the Muscular Dystrophy Association and meets every other week. This clinic provides adults and children with comprehensive diagnostic evaluation and treatment, including orthotics, physical therapy, occupational therapy, and genetic testing for a variety of neuromuscular diseases.

Some of the diseases followed in this clinic include muscular dystrophy in adults and children (Duchenne, Becker, myotonic, limb-girdle, facioscapulohumeral), inflammatory myopathies (polymyositis, dermatomyositis, inclusion body myositis), metabolic and mitochondrial myopathies, and congenital myopathies, hereditary peripheral neuropathies (Charcot-Marie-Tooth disease) and motor neuron disease (amyotrophic lateral sclerosis, spinal muscular atrophy).

Investigative studies related to neuromuscular disorders will continue to lead to new treatments and better outcomes for patients.

Some of our current ongoing research programs include clinical trials in the areas of infectious neuropathies, inflammatory myopathies and muscular dystrophy.

Neuromuscular Research

Because of the extensive clinical and basic science research done at Downstate, we are often able to offer our patients treatment options not available elsewhere.

Center for Neuromuscular Disease Physicians

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www.downstate.edu/neurology/neuromuscular
Please visit our website for additional information about our physicians, staff, facility and services.