What is Myopathy?

The myopathies are neuromuscular disorders in which the primary symptom is muscle weakness due to dysfunction of muscle fiber. Other symptoms of myopathy can include muscle cramps, stiffness, and spasm. Myopathies can be inherited (such as the muscular dystrophies) or acquired (such as common muscle cramps). Myopathies are grouped as follows:

- **Congenital myopathies**: characterized by developmental delays in motor skills; skeletal and facial abnormalities are occasionally evident at birth
- **Muscular dystrophies**: characterized by progressive weakness in voluntary muscles; sometimes evident at birth
- **Mitochondrial myopathies**: caused by genetic abnormalities in mitochondria, cellular structures that control energy; include Kearns-Sayre syndrome, MELAS and MERRF
- **Glycogen storage diseases of muscle**: caused by mutations in genes controlling enzymes that metabolize glycogen and glucose (blood sugar); include Pompe’s, Andersen’s and Cori’s diseases
- **Myoglobinurias**: caused by disorders in the metabolism of a fuel (myoglobin) necessary for muscle work; include McArdle, Tarui, and DiMauro diseases
- **Myositis ossificans**: characterized by bone growing in muscle tissue
- **Familial periodic paralysis**: characterized by episodes of weakness in the arms and legs
- **Polymyositis, inclusion body myositis, and related myopathies**: inflammatory myopathies of skeletal muscle
- **Neuromyotonia**: characterized by alternating episodes of twitching and stiffness; and
- **Stiff-man syndrome**: characterized by episodes of rigidity and reflex spasms
- **Common muscle cramps and stiffness**, and
- **Tetany**: characterized by prolonged spasms of the arms and legs

Is there any treatment?

Treatments for the myopathies depend on the disease or condition and specific causes. Supportive and symptomatic treatment may be the only treatment available or necessary for some disorders. Treatment for other disorders may include drug therapy, such as immunosuppressives, physical therapy, bracing to support weakened muscles, and surgery.

What is the prognosis?

The prognosis for individuals with a myopathy varies. Some individuals have a normal life span and little or no disability. For others, however, the disorder may be progressive, severely disabling, life-threatening, or fatal.

What research is being done?

The NINDS supports and conducts an extensive research program on neuromuscular disorders such as the myopathies. Much of this research is aimed at increasing scientific understanding of these disorders, and finding ways to prevent, treat, and cure them.

NIH Patient Recruitment for Myopathy Clinical Trials

- **At NIH Clinical Center**
- **Throughout the U.S. and Worldwide**
- **NINDS Clinical Trials**

Organizations

**National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)**

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**Muscular Dystrophy Association**

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Related NINDS Publications and Information

- **NINDS Muscular Dystrophy Information Page**
  Muscular Dystrophy (MD) information sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).
- **NINDS Mitochondrial Myopathies Information Page**
  Mitochondrial myopathies information sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).
- **NINDS Dermatomyositis Information Page**
  Dermatomyositis information sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).
- **NINDS Inclusion Body Myositis Information Page**
  Inclusion Body Myositis (Inflammatory Myopathy) information sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).