Mitochondrial syndrome

A disorder that occurs when structures that produce energy for a cell malfunction.

Very rare
Fewer than 20,000 US cases per year

- Treatment can help, but this condition can't be cured
- Requires a medical diagnosis
- Lab tests or imaging always required
- Chronic: can last for years or be lifelong

A common factor among mitochondrial diseases is that the mitochondria are unable to completely burn food and oxygen to generate energy, which is essential for normal cell function. It's often inherited.

Symptoms might include poor growth, developmental delays, and muscle weakness.

There's no cure, but physical therapy and medications can manage symptoms.

Symptoms

Requires a medical diagnosis

Symptoms might include poor growth, developmental delays, and muscle weakness.

People may experience:

Muscular: flaccid muscles, muscle weakness, problems with coordination, loss of muscle, or muscle quiver

Whole body: nervous system dysfunction, fatigue, or inability to exercise

Eyes: weak eye muscles or rapid involuntary movement

Also common: developmental disability, heart block, seizures, severe unintentional weight loss, or slow growth

Treatments

Treatment depends on severity

There's no cure, but physical therapy and medications can manage symptoms.

Self-care

- Ketogenic diet: A special high-fat, low-carbohydrate diet that helps control seizures in some people.
- Physical exercise: Aerobic activity for 20-30 minutes 5 days a week improves cardiovascular health. If injured, pursuing an activity that avoids the injured muscle group or joint can help maintain physical function while recovering.

Medications
**Dietary supplement:** Works alone or in conjunction with other treatments to promote health.

- Antioxidant
- Niacinamide (Niacin (niacinamide))
- Riboflavin (Vitamin B2)
- Coenzyme Q10

**Specialists**

- **Neurologist:** Treats nervous system disorders.
- **Medical geneticist:** Diagnoses and manages hereditary disorders.
- **Physical therapist:** Restores muscle strength and function through exercise.
- **Primary care provider (PCP):** Prevents, diagnoses, and treats diseases.

Consult a doctor for medical advice

Note: The information you see describes what usually happens with a medical condition, but doesn't apply to everyone. This information isn't medical advice, so make sure to contact a healthcare provider if you have a medical problem. If you think you may have a medical emergency, call your doctor or an emergency number immediately.

**Sources:** Mayo Clinic and others. Learn more