



Empowering Children. Supporting Families. Building Brighter Futures.

Resource 030 | Movement and muscle conditions

Duchenne muscular dystrophy

What it means

Duchenne muscular dystrophy (DMD) is a genetic muscle condition caused by inadequate functional dystrophin. It usually affects boys, although girls and women can also have symptoms or related cardiac risks. Weakness begins in childhood and changes over time; current care requires a specialist neuromuscular team. [1]

Causes and risk factors

DMD is caused by a pathogenic change in the DMD gene on the X chromosome. It may be inherited or arise as a new change, so absence of family history does not exclude it. Genetic testing identifies the variant and helps with family counseling and treatment eligibility. [1,2]

General family education. A concern deserves assessment, but this guide does not diagnose a child or prescribe treatment.



Signs and everyday impact

Early signs can include delayed walking, frequent falls, difficulty running or climbing, enlarged-looking calves, and using the hands to push up the legs when rising. Some children have language, learning, or attention needs. Heart and respiratory involvement may develop without obvious early symptoms. [1,2]

Assessment and diagnosis

Clinicians assess the movement pattern and may test creatine kinase, followed by genetic investigation to confirm the diagnosis. Neuromuscular, cardiac, respiratory, orthopedic, and developmental assessments guide care. A muscle biopsy is considered only when needed. Carrier and family testing should follow genetic counseling rather than assumptions about relatives. [1,2]

Treatment and therapy

Care may include corticosteroid-based treatment and, for eligible children, other disease-modifying or gene-directed options. Availability, genotype requirements, safety restrictions, and monitoring change; specialist review is essential. Rehabilitation, contracture management, bone health, cardiac care, respiratory support, nutrition, and accessible education remain important regardless of drug eligibility. [1,2,3]

Support at home

Follow the team's activity and stretching plan and avoid unprescribed exhausting or muscle-damaging exercise. Ask about steroid illness or interruption instructions if prescribed. Keep a current emergency and anesthesia information summary. Support play, communication, and learning as well as mobility.

When to seek help

Breathing difficulty, chest symptoms, severe illness, dark urine with muscle pain, or sudden marked weakness needs urgent care. Do not abruptly stop prescribed long-term steroids without medical instructions.

Questions for your care team

- Which current treatment options fit this child's variant and medical situation?
- What surveillance and emergency information should we maintain?
- How can school and family activities remain accessible?



Podcast preparation

Use this outline to develop a later podcast script.

Suggested opening

Welcome to Mariel Early Intervention. Today we discuss duchenne muscular dystrophy. Duchenne muscular dystrophy (DMD) is a genetic muscle condition caused by inadequate functional dystrophin. This is general education; each child needs individualized care.

Opening: Define the topic and its developmental context.

Understanding: Explain causes and signs without inviting self-diagnosis.

Assessment: Describe evaluation and distinguish screening from diagnosis.

Support: Discuss treatment, therapy, and practical family supports.

Closing: Explain urgent signs and one clear next step.

Misconception to address: A treatment option does not remove the need for ongoing heart, respiratory, and rehabilitation care.

Before recording: update clinical references and local service details, arrange clinical review, and use fully consented or fictional examples.

Terms in plain language

- Dystrophin: a protein that helps protect muscle fibers.
- Pathogenic variant: a genetic change known to cause disease.
- Gowers maneuver: using the hands to help rise from the floor.

Sources and further reading

Sources accessed 3 October 2026. Numbered references support the clinical overview. Treatment availability and referral routes vary by country.

[1] Duchenne and Becker muscular dystrophy: MedlinePlus Genetics
<https://medlineplus.gov/genetics/condition/duchenne-and-becker-muscular-dystrophy/>

[2] Duchenne muscular dystrophy: MedlinePlus Medical Encyclopedia
<https://www.medlineplus.gov/ency/article/000705.htm>

[3] Muscular Dystrophy
<https://www.ninds.nih.gov/health-information/disorders/muscular-dystrophy>