

STEMCELL LONGEVITA

Stem Cell Therapy for Muscular Dystrophy: A Patient's Guide

Supporting Muscle Repair and Slowing Degeneration



Your Journey to Regenerative Health Starts Here

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Understanding Muscular Dystrophy

What Is Muscular Dystrophy?

Muscular dystrophy (MD) refers to a group of genetic disorders characterized by progressive weakness and degeneration of the skeletal muscles that control movement. There are over 30 types of MD, with Duchenne and Becker being the most common. These conditions are caused by genetic mutations that affect proteins essential for muscle fiber structure and function.

Types and Symptoms

- Duchenne MD — Most severe form, typically appearing in boys ages 2-5, causing rapid muscle degeneration.
- Becker MD — Similar to Duchenne but milder and slower in progression, with later onset.
- Limb-Girdle MD — Affects shoulder and hip muscles, onset in teens to early adulthood.
- Progressive muscle weakness, difficulty walking, frequent falls, and eventual loss of ambulation.

While muscular dystrophy is genetic and cannot be fully corrected without gene therapy, stem cell therapy can provide supportive muscle repair, reduce inflammation, and potentially slow the rate of muscle degeneration.

CHAPTER 2

How Stem Cell Therapy Helps

Muscle Support Mechanisms

MSCs support muscle health in MD through paracrine effects that promote satellite cell activation (the body's muscle repair cells), reduce the chronic inflammation that accelerates muscle degeneration, decrease muscle fibrosis (scarring), and potentially fuse with existing muscle fibers to provide partial structural support. While MSCs cannot correct the underlying genetic defect, they can enhance the muscle's compensatory repair mechanisms.

A clinical study in Duchenne MD patients showed that MSC therapy improved motor function scores, increased muscle strength measurements, and slowed creatine kinase elevation (a marker of muscle damage) compared to untreated controls.

Observed Benefits



Treatment at StemCell Longevita

Our MD Protocol

We use a combination of IV infusion for systemic delivery and intramuscular injections into key muscle groups. Cell doses are carefully calculated based on body weight and disease severity. Our pediatric team has experience treating children with neuromuscular conditions.

Treatment at Liv Hospital Ulus

- Day 1 — Neuromuscular assessment, muscle function testing, blood work, and treatment planning.
- Day 2-3 — Stem cell IV infusions and targeted intramuscular injections.
- Day 4 — Follow-up assessment, physical therapy guidance, and discharge with rehabilitation plan.

CHAPTER 4

Results & Recovery

What to Expect

Improvements in muscle endurance and strength may begin appearing 4 to 8 weeks after treatment. Motor function improvements typically develop over 3 to 6 months. The primary goal is to slow disease progression, maintain current function, and improve quality of life.



Getting Started

Next Steps

If your child or family member has muscular dystrophy, contact us with their medical records, genetic testing results, and functional assessments for a free evaluation and honest discussion of what stem cell therapy can offer.

Frequently Asked Questions

Can stem cells fix the genetic defect causing muscular dystrophy?

MSC therapy does not correct the underlying genetic mutation. However, it supports muscle repair, reduces inflammation and fibrosis, and may slow disease progression. Gene therapy research continues separately and may complement stem cell approaches in the future.

At what age should treatment begin?

Treatment can be considered once the diagnosis is established. Earlier intervention may help preserve muscle function and slow degeneration. Our team evaluates each patient individually to determine optimal timing.

How often should treatment be repeated?

We typically recommend repeat treatments every 6 to 12 months to maintain supportive effects, as muscular dystrophy is a progressive condition requiring ongoing therapeutic support.

Is it safe for children?

Yes, MSC therapy has been safely administered to children with muscular dystrophy in clinical studies. Our pediatric team is experienced in treating young patients with neuromuscular conditions.

Medical Disclaimer

The information contained in this guide is provided for educational purposes only and is not intended as medical advice, diagnosis, or treatment. Stem cell therapy outcomes vary by individual, and no specific results are guaranteed. The content herein reflects current scientific understanding and clinical experience as of the publication date but is subject to change as new research emerges. Always consult with a qualified healthcare professional before making any medical decisions. StemCell Longevita and its affiliated practitioners are not responsible for any actions taken based on the information in this guide. All medical treatments carry inherent risks, and patients should discuss potential benefits, risks, and alternatives with their treating physician.

Ready to Begin Your Healing Journey?

Our team of regenerative medicine specialists is ready to evaluate your case and create a personalized treatment plan.

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