



IN THE TREATMENT OF DMD

WANTING STRONGER MUSCLES AND BONES IS SOMETHING WE ALL CAN AGREE ON.

Duchenne muscular dystrophy (DMD) is a rare disease marked by progressive muscle loss and weakness. While DMD is rare, the neuromuscular effects of DMD are well characterized. Beyond muscles, DMD has a damaging effect on patients' heart health, breathing ability, and skeletal health.^{1,2}

A CLOSER LOOK AT DMD, TREATMENT, AND BONE HEALTH

Muscle weakness and lack of weight-bearing activity caused by DMD ultimately lead to weak bones. In addition, lifestyle and biological changes caused by DMD lead to below-average levels of calcium and vitamin D, which are vital to healthy bones.³

Glucocorticoids, which are a foundational treatment in DMD, can worsen bone health. Side effects of this treatment include weak bones, bone demineralization, and fractures.^{2,3}

THERE ARE RECOMMENDED STEPS THAT YOU AND YOUR DOCTOR CAN TAKE TO HELP MANAGE BONE HEALTH

STEPS INCLUDE²⁻⁴:

- Standing frequently may help maintain bone density
- Routine physical therapy and regular stretching can help maintain joint flexibility and reduce joint stiffness
- Getting outdoors in the sun can help increase vitamin D

RECOMMENDED ASSESSMENTS YOUR DOCTOR CAN INCLUDE IN YOUR TREATMENT

Laboratory testing should include²:

- Calcium
- Vitamin D
- Phosphorus
- Alkaline phosphatase (ALP)

Bone health imaging should include²:

- DEXA scans
- Spine radiographs if vertebral (spinal) fractures are suspected
- Bone age radiographs if growth failure is detected

DEXA=dual-energy X-ray absorptiometry.

Work with your doctor to ensure all aspects of DMD are covered in your routine assessments.

References: 1. Mah JK. Current and emerging treatment strategies for Duchenne muscular dystrophy. *Neuropsychiatr Dis Treat.* 2016;12:1795-1807. 2. Bushby K, Finkel R, Birnkrant DJ, et al. Diagnosis and management of Duchenne muscular dystrophy, part 2: implementation of multidisciplinary care [published correction appears in *Lancet Neurol.* 2010 Mar;9(3):237]. *Lancet Neurol.* 2010;9(2):177-189. 3. Buckner JL, Bowden SA, Mahan JD. Optimizing bone health in Duchenne muscular dystrophy. *Int J Endocrinol.* 2015;2015:928385. 4. Pedlow K, McDonough S, Lennon S, Kerr C, Bradbury I. Assisted standing for Duchenne muscular dystrophy. *Cochrane Database Syst Rev.* 2019;10(10):CD011550.

