

Duchenne Muscular Dystrophy

Physical Therapy Care

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PT Care in DMD

Continuum of care across phases

- diagnosis / early ambulatory phase
- late ambulatory / transitional
- early non-ambulatory
- late non-ambulatory

Coaching and anticipatory guidance

Range of motion

Functional mobility

Positioning

Skin management

PT Care in DMD

Coaching and Anticipatory Guidance

Preventive and protective daily routines more important than frequent formal PT
Preparing for next phases

Range of Motion

Promote muscle length & joint range, delay contracture, preserve function, comfort
Ambulatory phase via targeted active-assisted low-repetition exercises

Transitional and non-ambulatory phases

- expanding AAROM / PROM program
- 24hr positioning program

PT Care in DMD

Functional mobility

Ambulatory phase goal to protect muscles such as in means to rise from floor, to ascend stairs, recreation

Transitional phase adding wheeled mobility for distances and terrain to prevent falls

Non-ambulatory phase power mobility, mechanical lift

All phases to promote participation and quality of life for child and family

Positioning

Early ambulatory phase re: sitting posture, avoiding slouch to prevent spinal curvature (kyphosis, scoliosis)

Transitional phase via wheeled mobility seating, and hip adduction strap for lying

Non-ambulatory phase 24hr positioning program

- protect skin / integument
- promote seated symmetry and stability and head control
- prevent pain

RESOURCES

<https://www.cdc.gov/ncbddd/muscular dystrophy/care-considerations.html>

Birnkrant DJ, Bushby K, Bann CM, Apkon SD, Blackwell A, Brumbaugh D, Case LE, Clemens PR, Hadjiyannakis S, Pandya S, Street N, Tomezsko J, Wagner KR, Ward LM, Weber DR; DMD Care Considerations Working Group. Diagnosis and management of Duchenne muscular dystrophy, part I: diagnosis, and neuromuscular, rehabilitation, endocrine, and gastrointestinal and nutritional management. *Lancet Neurology* 2018 Apr 17 (3), 251-267.

Case LE, Apkon SD, Eagle M, Gulyas A, Juel L, Matthews D, Newton R, Posselt HF. Rehabilitation Management of the Patient with Duchenne Muscular Dystrophy. *Pediatrics*. Oct 2018;124(Suppl 2):S17-S33

<https://www.parentprojectmd.org/new-physical-therapy-stretching-video-series-from-ppmd/>

https://www.parentprojectmd.org/wp-content/uploads/2020/05/Range_of_motion_guidelines_download.pdf