EXERCISE AND PHYSICAL THERAPY

DISCLAIMER: ABOUT ME

- Marija Radenovic, Registered Physiotherapist
- One Step Ahead Mobility; private physiotherapy clinic
- Practice largely consists of individuals with progressive neurological conditions
- Smaller portion of my work is with individual with muscular dystrophies



AGENDA

Exercise and FSHD

Aerobic Exercise

Resistance Training

Physical Therapy



EXERCISE AND FSHD

- Exercise can be defined as physical activity that is planned, structured, repetitive, and purposeful, with the goal of improving or maintaining physical fitness. Different types of exercise will have different goals.
- Types: cardiovascular (aerobic exercise), resistance (strength training), flexibility, balance.



- Flexibility and balance training are low risk exercises. Appropriate aerobic exercise is not harmful for those with FSHD and may have some benefits.^{1,2,3}
- Resistance or strength training offers challenges for those with FSHD. It is unclear if resistance training worsens the progression of the disease. ^{3,4}

AEROBIC EXERCISE

Focuses on rhythmic and gentle repetitive motions of large body parts in order to temporarily increase heart rate, circulation, and oxygen demands in the body.





Aim for:

- Non-stop movement for at least 8-10 minutes.
- Low to moderate intensity: whole body changes such as getting warm, increased breathing rate. Must be pain free.
- About 60-150 minutes a week. Every minute counts!

Practical tips:

- Complete in sitting positions like a recumbent bike.
- Complete in water to help reduce pressure on joints.
- Use assistive devices if needed.



RESISTANCE TRAINING AND ALTERNATIVES

Concern: Increased risk of injury

- Supervision when developing and prescribing exercises. Only training 2-3 times a week.
- Starting with low intensity exercise and monitoring symptoms, rest often during the session
- Lots of variety of exercises and frequently changing positions to reduce the load on any one part of the body

Concern: Some muscles are already worked too much with daily tasks and need rest rather than more exercise

- Focus on balance, functional tasks, and mobility
- Using bands instead of free weights
- Avoiding muscles that work around the neck or painful joints

Body Part	Position	Other Practice
Lower body	Lying down	Balance training
Trunk	Sitting	Stretching
Upper body	Standing	Posture training

PHYSICAL THERAPY

Healthcare providers that specialize in movement and physical activity.

Goals of therapy:

- Goals and expectations of individual
- Designing and supervising exercise programs to maintain mobility or prevent falls
- Addressing access issues in the home or community
- Joint pain management
- Assessment for assistive devices
- Connect with other resources

Assistive devices might include:

- Walkers
- Ankle-foot orthosis (AFO)
- Seat raisers
- Braces or splints for joints







RESOURCES

- 1. Voet, N. B., van der Kooi, E. L., van Engelen, B. G., & Geurts, A. C. (2019). Strength training and aerobic exercise training for muscle disease. Cochrane Database of Systematic Reviews, (12).
- Tawil, R., Kissel, J. T., Heatwole, C., Pandya, S., Gronseth, G., & Benatar, M. (2015). Evidence-based guideline summary: Evaluation, diagnosis, and management of facioscapulohumeral muscular dystrophy: Report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology and the Practice Issues Review Panel of the American Association of Neuromuscular & Electrodiagnostic Medicine. Neurology, 85(4), 357-364.
- 3. Tawil, R., Mah, J. K., Baker, S., Wagner, K. R., Ryan, M. M., Corbett, A., ... & Watts, A. (2016). Clinical practice considerations in facioscapulohumeral muscular dystrophy Sydney, Australia, 21 September 2015. Neuromuscular Disorders, 26(7), 462-471.
- 4. Bostock, E. L., O'Dowd, D. N., Payton, C. J., Smith, D., Orme, P., Edwards, B. T., & Morse, C. I. (2019). The effects of resistance exercise training on strength and functional tasks in adults with limb-girdle, becker, and facioscapulohumeral dystrophies. Frontiers in Neurology, 10, 1216.

 FSHD Society: https://www.youtube.com/@FSHDSociety
FSHD Global: https://fshdglobal.org/what-is-fshd/managing-yourhealth/

THANK YOU

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