



MUSCULAR DYSTROPHY

There are a number of different types of Muscular Dystrophies. Most of the research into exercise and neuromuscular conditions has focused on Duchenne Muscular Dystrophy and Becker Muscular Dystrophy. This factsheet provides a general overview of benefits for neuromuscular conditions.

Being active is important for everyone, and the benefits of exercise for those with a neuromuscular condition is just as important. For a long time, there has been the belief that physical activity has the potential to increase the rate of muscle degeneration, and that it should be avoided.

WHY IS EXERCISE IMPORTANT?

Exercise for the management of neuromuscular conditions is to preserve the functional abilities of the individual for as long as possible². Delaying the loss of functional abilities for those with a neuromuscular condition may prolong a degree of independence, and assist with the ability to undertake activities of daily living, and thereby improve mental well-being also.

Other benefits of exercise⁴:

- Develop balance and coordination
- Increase fitness, mobility, flexibility and independence
- Reduce the risk of illness associated with inactivity such as obesity, diabetes and high blood pressure
- Improve mental health, self-esteem and coping mechanisms
- Help reduce pain levels
- Improve sleeping habits
- Create a sense of normalcy

IMPORTANT THINGS TO REMEMBER

As the condition develops, an increasing amount of energy is required for activities and movement, and often results in increased sedentary time and inactivity^{1,3}. Inactivity can potentially lead to secondary degeneration of healthy muscle fibres through the progressive disuse of the muscles – the same effect inactivity has on anyone's muscles. This side effect of inactivity is more debilitating for someone already experiencing progressive muscle weakness and degeneration. Tailored physical activity by an Accredited Exercise Physiologist (AEP) can assist in delaying the secondary deterioration of muscle tissue and the loss of functional abilities as a result of disuse².

An Accredited Exercise Physiologist can provide a well-designed program to ensure the child is completing regular tailored activity. With an AEP taking into consideration the maturation of the individual, as well as severity, rate of progression and location of the muscle weakness, and careful selection as to the type of exercise, frequency, intensity, and duration of training, exercise can be beneficial⁵. Regular activity can delay degeneration and improve/maintain strength and improve quality of life for the child.

It is important to note that despite its benefits, exercise is not a cure, and cannot prevent the progressive degeneration of the muscle fibres.



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TYPES OF EXERCISE RECOMMENDED:

The types of exercise beneficial for individuals with a neuromuscular condition:

- **Flexibility:** helps the joints move, and improving flexibility can help improve the way the body moves, help prevent contracture and help minimise injury. Regular stretching is important, especially for stiff muscles. Exercises such as yoga can be beneficial, as well as a regular stretching program on as many days as possible.
- **Muscle strength:** stronger muscles help with movement, posture, comfort and independence. Muscle strengthening activities should be done 3 times a week. Bodyweight, yoga and resistance band exercises can be beneficial.
- **Aerobic exercise:** physical activity that makes us breathe harder, and improves our heart and lung function. For some individuals with a neuromuscular condition, this can be harder to achieve due to various limitations, but benefits to our heart and lung function can come from strength based exercise too.
- Exercise should be incorporated into a child's daily activity and commence with small bouts of 10-15 minutes.
- Physical activity and movement should also be fun and designed through play to increase enjoyment for the child.

RIGHT PROFESSIONAL

For those living with a neuromuscular disorder like muscular dystrophy, it's recommended you consult an Accredited Exercise Physiologist for a tailored exercise plan that is safe for your individual needs.

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