



THE MYOSITIS ASSOCIATION

Exercise for those who already exercise

- ▶ Discuss different types of exercise
 - ▶ INSPIRATION
 - ▶ Swimming/walking/gym/classes etc
 - ▶ It should be fun/enjoyable
- ▶ How much exercise is needed?
 - ▶ Enough to be health-enhancing?
 - ▶ Be intensive enough to improve physical capacity
 - ▶ How to assess heart rate
 - ▶ Adapted to your symptoms
- ▶ Problem solving
- ▶ Share your own experiences

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- 0 No exertion
- 0.5 Extremely weak (light)
- 1 Very light
- 2 Light
- 3 Moderate
- 4 Somewhat strong
- 5 Strong (heavy)
- 6
- 7 Very strong
- 8
- 9
- 10 Extremely strong (almost maximal)

- Maximal

To rate your perceived exertion after an exercise session, just register the number that you feel best represents your experience

Lower numbers correspond to lower exertion, while higher numbers describe a higher level of exertion

The anchor words are there to help, and you can always use numbers without an anchor word.

For example: a 6 corresponds to an experience of exertion that is stronger than a 5, but not exerting enough to be described as a 7.

Frequent walking

- ▶ To improve aerobic capacity you should walk or do other aerobic physical activity at least 20-30 minutes at least 2-3 days a week on an intensity of 50-70% of your maximal heart rate.
- ▶ You can calculate your estimated maximal heart rate: $220 - \text{age}$ and then you can calculate on which range of heart rate you need to be to improve aerobic capacity.
- ▶ Example: I am 45 years old: $220 - 45 = 175$ (my estimated maximal heart rate). Then I need to calculate my range of heart rate for exercise session: $175 \times 0.5 = 87.5$ and $175 \times 0.7 = 122.5$ (my heart rate range during exercise should be: 87.5 - 122.5).
- ▶ Check your heart rate manually or by using heart rate monitor

Aerobic exercise if you have low disease activity

- ▶ Has shown even better results on muscle function and disease activity than the previously presented resistance training program

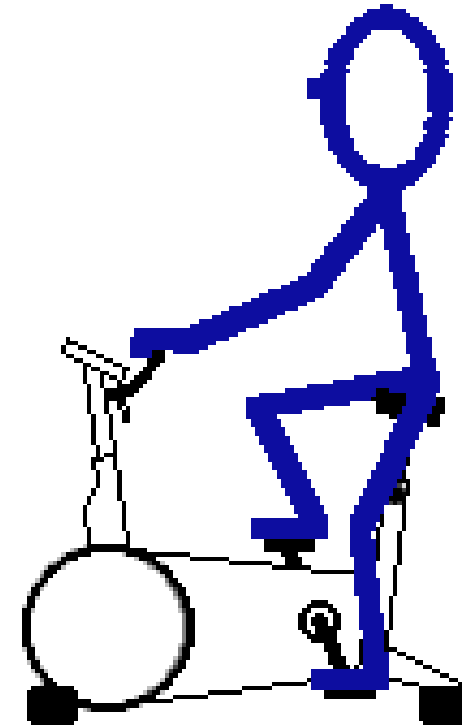


evaluated in randomized controlled trial comparing this exercise program to a non-exercising control group on a stable level of physical activity

- ▶ **Exercise program**
- ▶ 3 times/ w, 12 weeks
- ▶ 30 min cycling (load of 70 % of VO_2 max)
- ▶ 20 min muscle endurance (30-40 % of 1VRM)



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6

Intensive resistance training when:

- ▶ You have low disease activity, lower corticosteroid doses. Stable phase of disease
- ▶ This program is contraindicated if:
 - ▶ You have severe osteoporosis and have experienced fractures
 - ▶ If you have corticosteroid dose exceeding about 20 mg/day
 - ▶ If you have severe arthritis

Intensive resistance training in low-active adult PM and DM



Deltoids



Quadriceps



Lat dorsi/biceps

3 sets of 10 repetitions
on 10 voluntary repetition
maximum
(the weight you can lift
10 times but not 11, 70% of
Maximal strength)



Gastrocnemius



Trunk/neck

(Alexanderson et al. *Arthritis Rheum* 2007;57:768-77)

- Improves muscle strength and endurance
- Reduces disease activity and inflammation

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Health benefits from regular physical activity

- ▶ Strong association between aerobic capacity and health! Both in healthy and in myositis
- ▶ Regular physical activity and exercise can:
 - ▶ Improve quality of life
 - ▶ Reduce risk of type II diabetes, osteoporosis and cardiovascular disease
 - ▶ Reduce high blood pressure
- ▶ Important as individuals with inflammatory rheumatic diseases are at higher risk of developing cardio-vascular disease



Types of exercise - physical activity

- ▶ Combination of aerobic and resistance endurance training
 - ▶ Aquatic training/swimming/biking/exercise class/functional training/circle training/dancing/
- ▶ Specific muscle groups / balance / coordination to optimize movement
 - ▶ Gym/home exercise/balance platform etc

Everyday physical activities / social activities



Exercise to improve physical capacity



https://youtu.be/_2vdA5SV1Po
<https://youtu.be/iZYc-bSF-fc>
[DSCF0075](#)
[DSCF0072](#)

Exercise guidelines for healthy - also relevant for myositis in low disease activity

Objective for exercise	Duration / exercise session	Intensity, % of max strength	Intensity, % predicted max heart rate	Frequency/ times/week
Improve muscle strength	-	60-80	-	2-3
Improve muscle endurance	-	30-40	-	2-3
Improve aerobic capacity	30-60	-	60-85	3

Health-enhancing physical activity - to reduce risk of cardiovascular disease, diabetes, osteoporosis and some forms of cancer

150 minutes of physical activity on a moderate intensity / week
OR
75 minutes of physical activity on a high intensity / week
+
Strength training twice a week

For individuals > 65 years, balance training is also recommended

Problem solving

- ▶ What are barriers and facilitators for physical activity / exercise?

Take home message

- ▶ Exercise should be designed individually and adapted to disease activity and disability with regular follow-up during active disease
- ▶ Active progressive exercise should be recommended to patients in all stages of disease - better to do something rather than nothing
- ▶ Exercise should be able to be incorporated in your daily life
- ▶ Regular physical activity