



Your Child & Exercise



Exercise is fundamental to health. The American Academy of Pediatrics recommends an hour a day for school aged children¹. ***Youngsters with MG need exercise as much or maybe more than other children.*** Exercise can take many forms and does not have to be a formal program. For children with MG, however, adding exercise is one way of balancing the effects of MG. It may take more effort and planning but consider exercise an essential for your child.

Benefits of Exercise

- increased energy levels
- improved strength, endurance and flexibility
- weight control
 - Inactivity leads to unhealthy weight gain
 - Some medications can also lead to weight gain. For instance, anti-inflammatory medications such as prednisone²- and prednisolone-like agents.
- better blood sugar control
 - blood sugar can be affected by some treatments for MG such as including anti-inflammatory³ medications
- improving sleep, which in turn:
 - improves physical energy levels
 - decreases fatigue levels
 - makes the mind sharper
 - improves mood
- improved balance and posture

Before starting any exercise program, consult with your child's neurologist.

MG must be actively managed and stable before starting an exercise program.

¹ Energy Out: Daily Physical Activity Recommendations <https://www.healthychildren.org/English/healthy-living/fitness/Pages/Energy-Out-Daily-Physical-Activity-Recommendations.aspx>

² Treats inflammation (swelling), severe allergies, complications of chronic illnesses, and other medical problems. Also used to decrease some symptoms of cancer. This medicine is a steroid.

³ Inflammation is the body's response to irritation or injury.



Exercise Can Take Many Forms:

Key types of exercise include these essentials: Strength training develops the ability to lift and carry, as well as muscle power and strength. Stretching develops flexibility and helps muscles resist injury. Aerobics builds the capacity to walk, swim, run, bike and hike as well as play strenuous games. Relaxation such as deep breathing and yoga develop the body's ability to manage stress.



◆ Consider these activities:

- Tossing and/or hitting a ball
- Playground activities
- Biking
- Hula Hoop
- Jumping Rope
- Walking
- Hiking
- Jogging
- Swimming with supervision in shallow water with a comfortable temperature
- Skating, scooters
- Playing with and walking with the family dog
- Family outings which include walking and active games
- Yoga
- Tai Chi
- Dance
- And many others

As children get older, along with improvement of their myasthenia, more formal exercise programs using exercise equipment (treadmills, stationary bikes, weights to lift) can be developed under supervision.



Create an Activity Diary. Track activities throughout the day. Record sleep, school, play, rest times, and so forth. Record the medication schedule and its impact. Note level of fatigue throughout the day. This will help you plan how to manage your child's exercise and activity schedule. Share your diary with your child's doctor or care team.

To learn more about how, see the MGFA Webinar, The Role of Exercise in Taking Control of Your MG.

<http://myasthenia.org/LivingwithMG/MGFAWebinarSeries.aspx>

Plan It

It's clear that exercise for children with MG has special challenges. It may require planning that might not be needed for children without MG. So it's important to consider your child's challenges, needs, and situation as well as your own. Here are some questions and issues you'll want to consider.

- When is your child most frequently capable of exercise? When is he challenged by reduced strength and ability? See the sample chart for a tool you can use to track activities and fatigue throughout the day.
 - Are there times of the day when she is stronger or weaker?
 - How much can your child exert himself before he loses strength and needs a rest to recover? How long a rest is needed to recover?
- How does her medication schedule effect energy? Generally, exercise should be done at the peak of medication effectiveness.
- How might those facts affect the timing of exercise? For instance, would doing 10-15 minutes of exercise be a better choice than exercising for 30 minutes? And, how long a rest period do you need to build in?
- The ability to balance is important to prevent falls and to function effectively. Balancing exercises help to strengthen the core muscles as well as legs, ankles and feet.
- Don't over exercise. Use the "dollar a day" rule. If you imagine having just \$1 dollar a day, how will you spend it? Don't use 75 cents on exercise so that there's little energy left for the rest of the day. From *Myasthenia Gravis--A Manual for the Health Care Provider*, James F. Howard, Jr., MD, Editor, MGFA publisher, page 79. If your child is still very weak or tired after 2 hours and there's no other reason for this, then he has over exercised.
- Consider your child's abilities and their interests. What do they like to do?

- **Make your child part of the planning process.** The more your youngster's interests are taken into account, the more likely he will want to stick with the plan.
- In making your **Fitness Plan**, remember to start by taking challenges in small bites. Build strength and stamina over time always remembering to take MG into account. At the same time that your child is building her strength, she should always remember to "obey" her body when she begins to feel tired or weak. She can always return to exercising later.



- Reassess as you go along, cutting back if necessary but also be willing to work with your child on taking more challenges too.

Make It Fun

Build it into the day.

- If exercise can be managed only in small bites of time, build 2 or 3 exercise breaks into the day.
- Make exercise a family activity – exercise with your child when possible. Create your own program. Here are some ideas:
 - In the morning, be as active as possible. If watching television - for instance, sitting on an exercise ball rather than a chair can be fun. It can also improve balance and strengthen leg and stomach muscles.
 - At lunch-time take a walk around the school yard if possible.
 - In the evening do light activities. Exercise too close to sleep will make you physically tired but mentally more alert and less ready for sleep.
 - On weekends take outings that include physical activities.
- Exercise may take up time and energy that might have been used for other things in your child's day. But it will be more than valuable in supporting their health, and their ability to function well now and in the future.



Manage It

- Step up your program as your child builds strength.
- Add gradually.
- Keep your child's physician informed.
- **Avoid exercise when your child's MG worsens or your child seems to be under strain with worsening of their MG symptoms.**



Resources

- Visit the Myasthenia Gravis Foundation of America's website for these resources:
- Webinar, The Role of Exercise in Taking Control of Your MG, featuring MG exercise expert, Dr. Charlene Hafer-Macko, University of Maryland School of Medicine and Hospital, <http://myasthenia.org/LivingwithMG/MGFAWebinarSeries.aspx>
- Podcast: The Benefits of Exercise in the Care of Patients with Myasthenia Gravis Drs. Richard Macko and Charlene Macko, University of Maryland School of Medicine and Hospital, <http://myasthenia.org/LivingwithMG/PodcastEducationalSeries2.aspx>
- Myasthenia Gravis--A Manual for the Health Care Provider, James F. Howard, Jr., MD, Editor, MGFA publisher, page 79. <http://myasthenia.org/HealthProfessionals/EducationalMaterials.aspx>
- Livestrong.com article on physical therapy and MG: <http://www.livestrong.com/article/477048-physical-therapy-for-myasthenia-gravis/>
- Video of Myasthenia Gravis and Exercise presentation by Physical Therapist, Brittany White, October 2014 seminar hosted by MGF of Illinois at Palos Community Hospital <https://www.youtube.com/watch?v=QC4uYYo171k>
- Website, My Physical Therapy Coach presents this article: Exercise and myasthenia gravis (MG) at <http://www.my-physical-therapy-coach.com/exercise-and-myasthenia-gravis-mg.html>

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Track Fatigue & Note Activities Chart

The worst fatigue is a 10, no fatigue is a “0.” Track how your child feels throughout the day, especially after being active, or after taking medications or as medications wear off. This may help you find how to best handle exercise and other activities. For instance, 15 minutes of morning exercise when the effects of medications are at their optimum, another 15 minutes during the evening’s optimum. Find patterns over multiple days.

Fatigue	Morning						Afternoon							Evening					
	6 a m	7 a m	8 a m	9 a m	10 a m	11 a m	Noon	1 p m	2 p m	3 p m	4 p m	5 p m	6 p m	7 p m	8 p m	9 p m	10 p m	11 p m	
Worst	1																		
	0																		
	9																		
	8																		
	7																		
	6																		
	5																		
	4																		
	3																		
	2																		
None	1																		
	0																		
Notes																			