

FACT SHEET



# Pediatric Onset Multiple Sclerosis

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## ***What is Pediatric Multiple Sclerosis (PoMS)?***

Multiple Sclerosis (MS) most commonly affects caucasian women, ages 20-40, However, approximately 3-5 % of affected individuals develop the Pediatric onset Multiple Sclerosis (PoMS) before age 18 years. The Pediatric presentation is more variable in terms of gender and ethnicity, with a greater proportion of young males and non-caucasians affected than in the adult population. Approximately 95% of people with PoMS have relapsing remitting MS.

In general children present with similar symptoms/deficits compared to adult onset MS including:

- Visual
- Sensory
- Balance
- Bowel and Bladder
- Motor weakness
- Spasticity
- Coordination
- Fatigue
- Cognitive
- Psychiatric<sup>1</sup>

There are some disease characteristics that appear differently in people with POMS than those with adult onset MS. Research suggests that children with POMS have:

- Greater annual relapse rate<sup>2</sup>
- Slower disease progression<sup>2</sup>
- Due to the earlier onset of disease, they may reach ambulatory difficulties at an earlier age
- More vulnerable to cognitive disabilities particularly with attention and higher order problem solving, and language processing.<sup>3</sup>

Unique issues for children with POMS are:

- Lack of awareness regarding POMS in the medical, educational and general public.
- Struggles dealing with the “invisible symptoms” such as fatigue, depression, and memory issues.
- Feeling of isolation, not only for the child, but also the family.
- Fatigue and cognitive issues impacting the ability to fully participate in academic and recreational activities.
- Family of affected children will have to work closely with the school district in constructing an education plan specific to their child’s needs. Educational plans need to be modified as necessary due to the unpredictable nature of



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## Parkinson's Disease and Exercise



Treatment of MS is divided into three categories.

- Disease Modifying Therapies (drugs used to slow the progression of the disease)
- Treatment of relapses or “attacks”

### ***How can Physical Therapy (PT) Help POMS?***

Due to the complexity of the disease, PoMS is best managed using a multidisciplinary approach that is centered on the child and family. It is also important to seek out a PT who is familiar with MS and is aware of the challenges faced by those with PoMS.

A PT will evaluate how the child or adolescent with PoMS moves during typical daily activities and ask questions related to the challenges they may face in their school, home and community environment. Treatment will be focus on age-related challenges that are relevant to their everyday challenges and goals will be child and family-centered.

A PT will recommend specific activities and/or exercises to address deficits in:

- Strength
- Balance
- Walking
- Endurance
- Flexibility
- Coordination

PTs may also consult and refer to other healthcare practitioners such as: neurologists, occupational therapists, neuro-ophthamologists, speech pathologists and neuropsychiatrists.

Links to resources:

<http://www.nationalmssociety.org/>

<http://www.pediatricmscenter.org/>

<http://www.mymsaa.org/>

<http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Pediatric-MS-Program-for-Physicians.pdf>

[http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Students-with-MS-and-the-Academic-Setting\\_-A-Handbook-for-School-Personnel.pdf](http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Students-with-MS-and-the-Academic-Setting_-A-Handbook-for-School-Personnel.pdf)

[http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Kids-Get-MS-Too\\_-A-Handbook-for-Parents-Whose-Child-or-Teen-has-MS.pdf](http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Kids-Get-MS-Too_-A-Handbook-for-Parents-Whose-Child-or-Teen-has-MS.pdf)

[http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Managing-School-Related-Issues\\_-A-Guide-for-Parents-with-a-Child-or-Teen-Living-with-MS.pdf](http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Managing-School-Related-Issues_-A-Guide-for-Parents-with-a-Child-or-Teen-Living-with-MS.pdf)

<http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Your-Education-Rights-as-a-Student-with-Multiple-Sclerosis.pdf>

### **References**

1. Weisbrot D, Charvet L, Serafin D, et al. Psychiatric diagnoses and cognitive impairment in pediatric multiple sclerosis. *Mult Scler*. 2014;20(5):588–93. .
2. Gorman MP, Healy BC, Polgar-Turcsanyi M, Chitnis T. Increased relapse rate in pediatric-onset compared with adult-onset multiple sclerosis. *Arch Neurol*. 2009;66(1):54–9.
3. Julian L, Serafin D, Charvet L, et al. Cognitive impairment occurs in children and adolescents with multiple sclerosis: results from a United States network. *J Child Neurol*. 2013;28(1):102–7.



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