

Mellen Center Approaches: Wellness

Wellness is the quality or state of being in good health especially as an actively sought goal (Webster). People with MS, like everyone else, should seek optimal health and wellness. The pursuit of wellness is a continuous process throughout life. MS presents special challenges to this, however, and the means to achieve this goal will differ for each MS patient.

REFERENCE: <http://dictionary.reference.com/browse/webster>

Why do MS patients need a Primary Care physician?

Multiple Sclerosis patients need MS monitoring and treatment by a neurologist with experience in MS. In addition to this we now know that age appropriate health screens, vascular risk management, immunizations and management of other health conditions are equally important needs not routinely addressed by the neurologist. There is increasing evidence that other medical conditions such as hypertension and hypercholesterolemia may influence the level of disability from MS. Therefore, another health provider is needed. These services can be provided by a primary care physician.

There are various special barriers to primary care faced by people with MS. First, it may be difficult for MS patients to go to certain types of facilities because of physical limitations. Second, some MS patients require frequent visits to deal with MS problems, so adding additional health care visits for preventive services may seem burdensome for practical and financial reasons. Third, many primary care physicians defer to the Neurologist to manage medical problems and are less proactive or aggressive in dealing with general health issues, simply because the person has MS which can be viewed as the major health issue.

Despite these potential barriers, wellness and preventive medical care are extremely important for people with MS, and strong efforts should be made to ensure they are provided for.

Are there primary care issues that are more common in MS patients?

Osteoporosis is common in MS patients and may be related to use of steroids and or limited ambulation. Vitamin D deficiency is common in MS patients and common in this latitude of the globe. There is some evidence that Vitamin D deficiency may play some role in triggering MS, or even in disease activity once a person has MS. This is not certain at the present time, but is another important reason to maintain normal Vitamin D levels (see subsequent section here on Vitamin D deficiency and The Mellen Center Approach for Vitamin D Management). Managing vascular risk factors (such as hypertension, cholesterol, obesity, diabetes, and smoking) is not only important for cardiovascular health, but recent data shows that risk factor modification may be important in limiting MS disease severity as well (Marrie et al). Depression, fatigue and sleep disorders are very common in MS patients..

REFERENCES:

- Marrie RA, Horwitz R, Cutter G et al. Co morbidity delays diagnosis and increases disability at diagnosis in MS *Neurology* 2009;72:117-124
- Sundstrom P, Nystrom L. Smoking worsens the prognosis in multiple sclerosis. *Multiple sclerosis* 2008;14:1031-1035
- Wingerchuk D. Supplementing our understanding of vitamin D and multiple sclerosis. *Neurology* 2010;74:1846-47.
- Hearn AP, Silber E Osteoporosis in Multiple Sclerosis. *Mult Scler* 2010;16:1031-1043

Why would health promotion be relevant to MS patients?

Health promotion: Setting goals and establishing health promoting behaviors, like exercise and stress management, helps MS patients maintain employment, improves conditioning, improve the quality of life, and could even lessen the severity of MS. There is good evidence that regular exercise is

continued on next page

Mellen Center Approaches: Wellness, continued

important in MS, so we encourage specific planning for exercise programming in the MS population.

REFERENCES:

Watt D, Verma S, Flynn L. Wellness programs: A review of the evidence. Canadian Medical Association Journal 1998;158:224-230.

Ennis M, Thain J, Boggild M et al. A randomized controlled trial of a health promotion education programme for people with multiple sclerosis Clinical Rehab 2006; 20:783-792

Stuifbergen AK, Becker H, Blossis S. A randomized clinical trial of wellness intervention for women with multiple sclerosis. Arch PM and R 2003; 84:467-476

Is Vitamin D Important in MS patients? (Please also refer to Mellen Center Approach for Vitamin D Management)

There are various findings that point to a possible role of Vitamin D in MS patients:

- Sunlight and UV radiation exposure are inversely correlated with MS and relapse risk
- Calcium and Vitamin D pretreatment in animal models results in inability to induce EAE (animal model of MS)
- Timing of MS relapses frequently are in the fall and spring with falling Vitamin D levels
- Children with CIS and low Vitamin D have an increased risk of relapses
- Prevalence of MS is lower than expected in high latitudes with high fish intake.
- There is some research pointing to the fact that Vitamin D may be immunomodulatory.
- Majority of MS patients are Vitamin D deficient.
- Lowered Vitamin D levels have been associated with greater disease activity on the Brain MRI.
- The recommended dose of Calcium and Vitamin D for the adult population is 1200mg a day of Calcium and at least 600 mg a day of Vitamin D. Doses of Vitamin D3 in the 2-4000IU ranges, or higher, may be needed depending on the level of Vitamin D, target is near 50. One should also encourage regular sun exposure, 10 minutes daily or 30 minutes a few times a week then put on sunscreen for extended periods in the sun.

REFERENCES:

Raghuwanshi A, Joshi SS, Christakos S. Vitamin D and multiple sclerosis. J Cell Biochem. 2008;105:338-343

Ascherio A. Vitamin D and multiple sclerosis. Lancet Neurology 2010;9:599-612

Wingerchuk D Supplementing our understanding of vitamin D and multiple sclerosis Neurology 2010;74:1846-1847.

Is Osteoporosis more prevalent in MS?

Patients with MS have multiple risk factors for osteoporosis: impaired gait, sedentary lifestyle, use of steroids to name a few. Daily long term steroid use has been associated with increased risk of osteoporosis yet pulse steroids given every few months has not been associated with bone degradation. In general we avoid daily oral steroids in the treatment of multiple sclerosis. It has been shown that MS patients have a high risk of osteoporosis even with a normal gait. Bone loss can be prevented by: proper nutrition, weight bearing exercise as able and calcium and vitamin D supplementation. MS patients should be on Calcium and Vitamin D supplementation if they have had a fracture, use frequent steroids or have gait impairment. Patients can be referred to their Primary Care MD for management of bone health as there are multiple prescription medications and various approaches available to promote bone health.

Note that recent publications have shown that patients with MS have more of a tendency to osteopenia or osteoporosis than normal controls which is not related to steroid use. Also studies have shown that pulse steroids do not seem to alter bone health to a significant degree.

REFERENCES:

Hearn AP, Silber E Osteoporosis in Multiple Sclerosis. Mult Scler 2010;16:1031-1043

Are Over the Counter Supplements helpful in MS?

MS patients should avoid immune stimulants such as: Echinacea, oral garlic tabs, high dose Zinc as the goal of supplementations is to promote a healthy immune system. Patients may want to take a multivitamin to supplement their nutritional intake. Fish oils, Evening primrose or Flax seed oil will increase their daily intake of Omega 3 Fatty Oils which may be immune modulators. B complex and CoQ 10 tablets may help improve MS fatigue.

continued on next page

Mellen Center Approaches: Wellness, continued

REFERENCES:

Tremlett HL, Wiles CM, Luscombe DK Nonprescription medicine use in a multiple sclerosis clinic population Brit J Clin Pharm 2000;50:55-60

Are there any special nutritional issues related to MS?

At this time there is no direct evidence of a nutritional etiology related to the development of MS. That being said there are studies linking high intake of saturated fats, high calorie and intake of animal products with increased risk of MS. There are other studies showing a potential protective effect of a plant based diet that is rich in omega 3 oils and anti-oxidant vitamins. We can educate the patient in ways to reduce the saturated fats and optimize the diet such as: limits meats, add fish a few times a week, increase whole grains, fruits and vegetables. MS patients have high rates of constipation, patients should be educated to the need to eat 3 regular meals, eat high fiber meals, have adequate water intake and again eat fruits and vegetables regularly. General recommendations include: Each day eat at least 5 servings of fresh or cooked vegetables and fruits and at least 2 servings of whole grain products. The recommended goal for daily fiber intake is 25-35 grams. The recommended daily fluid intake is 8, 8oz glasses of water or noncarbonated noncaffeinated fluids a day. The daily fluid intake recommendations may need to be adjusted according to the daily Caffeine intake, medical conditions and activity level. If the patients would like detailed information they can be referred to a Nutritionist. There have been multiple studies looking at isolated nutritional supplement to help the MS, no particular positive finding occurred when patients added an isolated supplement of: Vitamin E, Vitamin C, Fish oils, evening primrose oil or Vitamin A.

REFERENCES:

Ghadirian P, Jain M, Ducic S et al. Nutritional factors in the aetiology of multiple sclerosis. Int J Epidemiol 1998;27:845-852.

Is weight management important in MS?

The VA series showed that Veterans with MS are more likely to be obese than non MS patients. Higher BMI (Body mass index) was found in patients that were married, male, employed and had diabetes or arthritis. Dr. Marrie found 60% of MS patients to be

overweight and this was associated with physical disability, even mild level of disability had higher risk of being overweight. Importantly, obesity is associated with hypertension, hypercholesterolemia, and type 2 diabetes, and these conditions are associated with increased risk of physical disability from the MS. Obesity has been found commonly in pediatric MS population.

REFERENCES:

Marrie RA, Horwitz RI. Emerging effects of comorbidities on multiple sclerosis. Lancet Neurol 2010;9:820-828

Khurana SR, Bamer AM, Turner AP et al The prevalence of overweight and obesity in veterans with multiple sclerosis. Am J Phys Med Rehabil. 2009 Feb;88(2):83-91.

Yeh, A Obesity as a Risk Factor in Pediatric Demyelinating Disorders 2011:Neurology 76March 1,2011(suppl 4) A131

Can Exercise help MS patients?

Yes, exercise is helpful and safe for a MS patient. MS patients, with all level of abilities, can work with PT and OT to help improve physical functioning and to maintain a home exercise program for conditioning. Exercise has been shown to improve the MS patients' quality of life including improvement both physical and emotional health. MS patients typically report a sedentary lifestyle; this is not always related to the level of disability. MS patients have reported less exercise during times of worsening MS symptoms. Fatigue of MS can improve with regular aerobic exercise, even at low levels therefore regular aerobic activity should be encouraged prior to starting a medication for MS fatigue. There have been studies showing an increase in brain derived neurotrophic factors (BDNF) and insulin like growth factor (IGF) with aerobic activity suggesting the potential for Brain repair functions from exercise. A safe regular exercise program should be encouraged in MS patients. Many patients find a combination of aerobic activity and stretching to help many MS symptoms and improve stamina, Yoga and Pilates can help to this end.

REFERENCES:

Petajan JH, Gappmaier E, White AT et al. Impact of aerobic training on fitness and quality of life in MS. Ann Neurol 1996; 39(4): 432-41

continued on next page

Mellen Center Approaches: Wellness, continued

Q: Are there lifestyle issues that predict the level of disability in MS patients?

Some factors that have been shown to be possible predictors of physical disability of MS include: social support, health behaviors, smoking, obesity and vascular co morbidities (Hypertension, Diabetes, Cardiovascular disease and obesity). It has been found that if an MS patient has one vascular co-morbidity it was associated with an increase risk of ambulatory disability, and this risk increased with each vascular co-morbidity. This is another reason that the MS patients should have a PCP to help manage the various vascular risk factors.

REFERENCES:

Mohr DC Psychological stress and the subsequent appearance of new brain MRI lesions in MS *Neurology* 2000;55;55-61

Marrie RA, Horwitz RI, Cutter G. Association between comorbidity and clinical characteristics of MS, *Acta Neurologica Scand.* 2011;124:135-141

Smoking and MS, do the patients need to quit?

The level of smoking in MS patients is similar to the general population. There have been articles defining the increased risk of smokers with autoimmune conditions. There are a few studies showing smokers with MS have higher levels of disability and smokers get MS more often. Yes, MS patients should quit smoking for health promotion. The Cleveland Clinic offers a Smoking Cessation program; they can be contacted at 216 444 8111.

REFERENCE:

Healy BC, Ali EN, Guttman CR, et al Smoking and disease progression in multiple sclerosis. *Arch Neurol.* 2009 Jul;66(7):858-64.

Should we be concerned about excess alcohol use in MS patients?

The level of alcoholism is similar in the MS population to the general population. Excess alcohol should be avoided, and if there is alcohol dependency or abuse, it should be aggressively addressed. Alcohol intake should be limited with various medications including interferons; patients should discuss this in detail with their treatment team.

What can be done to help MS patients with their fatigue and Sleep?

Fatigue is a common symptom of MS. Patient should be educated to the importance of healthy sleep hygiene, regular exercise, healthy nutrition, limiting caffeine intake and avoiding cigarettes and alcohol close to bed time. There are medications for MS fatigue but generally working on the factors listed above that help the sleep efficacy can remarkably help the patient's energy levels.

Does Complementary Alternative Medicine help MS patients?

MS patients use Complementary Alternative medicine (CAM) as often as the general public. They have reported that they have tried to have more control over their symptoms, to improve general well being and due to perceived inefficacy of conventional medicine. There are studies of music therapy, meditation, various supplements and Yoga in MS patients reported in the medical literature. Meditation, Yoga and music therapy helped improve MS patients' quality of life in small studies.

REFERENCE:

Effects of Meditation on Pain and Quality of Life in MS and PN: A Controlled study J Tavee , M Rensel , S Planchard and L Stone *Neurology* 74 March 2,2010 Suppl 2

What Wellness Opportunities does the Mellen Center and CCF have for our MS patients?

We offer a Wellness consultation to have more time to discuss the various Wellness issues and formulate a plan. This is a 30-60 minute one time visit. There are studies being performed at the Mellen Center of various forms of CAM: Music Therapy and Biofeedback. There are Integrative Medicine consultations with Internal Medicine Doctors and various practitioners (Reiki, Acupuncture and in Nutrition) at various sites in the Cleveland Clinic. There is an Integrative Medicine Center with physician consultation and various CAM practitioners located in North Olmstead and in Lyndhurst, OH. There are numerous avenues for Wellness within the Cleveland Clinic System: Smoking Cessation program, a Chemical dependency program, Lifestyle 180 (an intensive 12 months program for health promotion), Acupuncture, Nutrition therapy and Reiki to name a few.

Mellen Center Approaches: Wellness, continued

Contact information:

Wellness Consultation at Mellen Center
866-588-2264

Integrative Medicine – 216.986.HEAL

Smoking Cessation Cleveland Clinic – 800.223.2273

Alcohol and Drug Recovery Center Cleveland Clinic
216.444.5812 or 800.223.2273 ext. 45812

Lifestyle 180 – 216.444.5812 or 800.223.2273
ext. 45812

Nutrition Therapy – 216.444.3046