

# NUTRITION & MULTIPLE SCLEROSIS

Nutrition plays an important role in the management of multiple sclerosis (MS). While no specific diet can cure or stop the progression of MS, nutrition strategies can help manage symptoms, reduce comorbidities, support overall health, and potentially influence inflammation and immune function.<sup>1</sup>



## SYMPTOM MANAGEMENT

**Fatigue:** Eating balanced meals with lean proteins, whole grains, and healthy fats may support energy.

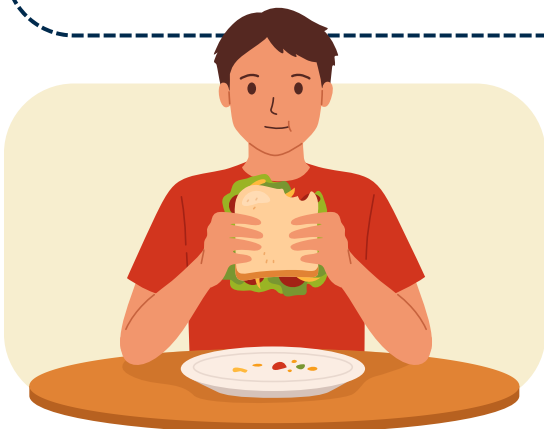
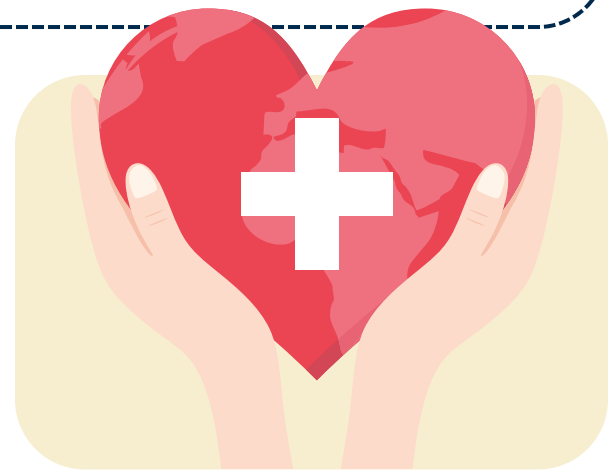
**Constipation:** Consuming plenty of fiber from foods like fruits, vegetables, and whole grains is important for bowel regularity. Hydration is also key.

**Dysphagia (swallowing difficulty):** Modified diets can support adequate food intake and safe swallowing.

## COMORBIDITY RISK MANAGEMENT

Nutrition influences your risk for other chronic diseases (comorbidities), such as obesity, diabetes, and cardiovascular disease.<sup>1</sup>

- Obesity is associated with inflammation and may worsen MS symptoms or progression.
- Cardiovascular (heart and blood vessel) risk factors, such as high blood pressure and high cholesterol, are associated with greater disability.



## IMMUNITY & GUT HEALTH

Diet affects the amount and types of bacteria in the gut. These bacteria play a role in immune function. Research is limited, but a balanced gut microbiome may be important in the management of MS. Dietary components, like vitamins, minerals, fatty acids, amino acids, and antioxidants are important for overall health and immunity.<sup>2</sup>

# COMPARING NOTABLE DIETS FOR MS SYMPTOM MANAGEMENT

Many eating patterns have been promoted to impact MS risk and symptom management. Always use caution when changing your diet and be sure to talk with your healthcare team for individualized recommendations.

## GLUTEN-FREE<sup>3</sup>

A gluten-free diet eliminates a protein called gluten. Gluten is found in wheat, barley, rye, triticale, and products derived from these cereals. A limited number of studies show that a gluten-free diet could reduce fatigue in MS. A gluten-free diet should be followed by people with a gluten allergy (Celiac disease). For those without a gluten allergy, following this diet may lead to nutritional deficiencies and worsening of gastrointestinal symptoms, like constipation.

## KETOGENIC<sup>1</sup>

A ketogenic diet is a high fat, moderate protein, and low carbohydrate eating pattern. Some studies show improvements in quality of life, fatigue, and depression. However, following a ketogenic diet can lead to negative side effects, including vitamin deficiencies, weight loss, and gastrointestinal upset.

## MCDUGALL<sup>3</sup>

The McDougall diet restricts fat, oils, and animal products. It emphasizes starchy plant-based foods, fruits, and vegetables. One study showed people following the McDougall diet reported improved fatigue levels, but this benefit was thought to be due to observed weight loss.

## WAHLS<sup>4</sup>

The Wahls diet is a modified paleolithic diet that includes nine daily servings of fruits and vegetables. It eliminates gluten, dairy, and eggs. It includes a moderate amount of meat and limits starchy foods. Some studies show improvements in fatigue and quality of life in people with relapsing-remitting MS (RRMS). However, use caution as this diet is restrictive.

## SWANK<sup>4</sup>

The Swank diet limits saturated fat and emphasizes whole grains, fruits, vegetables, lean fish, and fish oil supplements. Some studies show that following the Swank diet could improve fatigue and quality of life in people with RRMS.

## MEDITERRANEAN<sup>3</sup>

The Mediterranean diet emphasizes whole grains, fruits, vegetables, beans, nuts, seeds, olive oil, and moderate amounts of fish and dairy. It limits red meats, sugar, and saturated fats. Individual diet components suggest possible benefits in MS symptom management, although research is ongoing.



# GENERAL DIET RECOMMENDATIONS

While there is not an identified “best” diet for MS, there are similarities among diets linked to symptom management. These include high intakes of fruits and vegetables, and low intakes of saturated fats and concentrated sweets. In comparison, a diet high in salt, saturated fats, and carbohydrates along with a sedentary lifestyle is associated with worsening of symptoms.<sup>1</sup>

## TO DO:

- ✓ FOLLOW A MEDITERRANEAN-STYLE DIET, RICH IN FRUITS, VEGETABLES, WHOLE GRAINS, LEGUMES, NUTS, AND SEEDS
- ✓ LIMIT RED MEATS AND INSTEAD CHOOSE LEAN PROTEINS, LIKE CHICKEN AND TURKEY
- ✓ EAT FATTY FISH, LIKE TUNA OR SALMON, AT LEAST ONCE/WEEK
- ✓ CHOOSE LOW-FAT DAIRY PRODUCTS INSTEAD OF FULL-FAT
- ✓ COOK WITH OLIVE OIL INSTEAD OF BUTTER
- ✓ LIMIT ULTRA-PROCESSED FOODS

## PROTEIN

important for muscle and immune system maintenance

### Sources:

Beans, lentils, peas, nuts, seeds, tofu, tempeh, chicken, turkey, fish, seafood, meat, eggs, and low-fat dairy (milk, yogurt, cheese, etc.)

## WHOLE GRAINS



higher in fiber, vitamins, minerals, and antioxidants

### Source with gluten:

Whole wheat bread, whole wheat pasta, bulgar, oatmeal, rolled oats, whole grain barley, spelt, whole rye, and whole wheat tortillas

### Gluten-free sources:

Popcorn, amaranth, buckwheat, quinoa, sorghum, teff, wild rice, and brown rice

## WHAT ARE ULTRA-PROCESSED FOODS?



Ultra-processed foods undergo extensive processing that introduces additives. They often lack essential nutrients and are higher in saturated fats, sugar, and salt.

Examples include packaged meats, crackers, cookies, snack cakes, sodas, sugary cereals, “TV dinners,” ice cream, pastries, energy drinks, potato chips, and fast food.

# PRACTICAL NUTRITION TIPS

Managing nutrition with MS can be challenging. By focusing on small, sustainable habits rather than quick fixes, you can support your overall health and manage symptoms for effectively. Consider these practical tips to help guide you.

1

## SET SMALL, ACHIEVABLE GOALS.

Break down large diet changes into smaller, manageable steps. Focus on one change at a time to build consistency over time.

2

## FOCUS ON ADDING NUTRIENTS.

Keep the focus on nourishing your body with a variety of nutrients rather than eliminating food groups altogether.



3

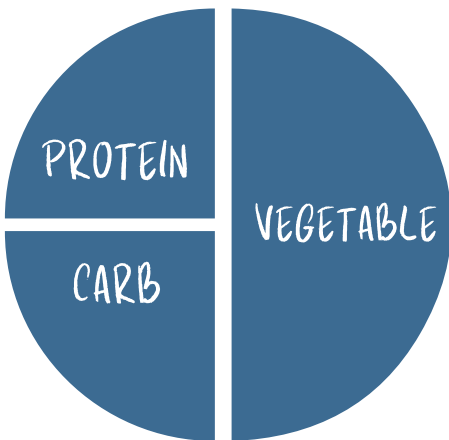
## BE MINDFUL OF PORTIONS.

Pay attention to portion sizes. Aim to fill one half of your plate with fruits and vegetables. Read nutrition labels to understand serving sizes.

4

## AVOID FAD DIETS.

Be cautious with trendy or restrictive diets that lack scientific backing. Instead, prioritize a balanced approach that avoids drastic changes.



5

## PRACTICE MINDFUL EATING.

Slow down and pay attention to hunger cues. Try to limit distractions, such as the TV or cell phones, during mealtimes. Eating mindfully can help prevent overeating and help with digestion.

6

## STAY CONSISTENT.

Stick to regular mealtimes to keep energy levels stable throughout the day. Avoid skipping meals, which can lead to overeating later.

# ADDITIONAL RESOURCES

## National Multiple Sclerosis Society

Visit [www.nationalmssociety.org](http://www.nationalmssociety.org) for information and resources on nutrition and MS.

## Can Do Multiple Sclerosis

Visit [www.cando-ms.org](http://www.cando-ms.org) for information and resources on nutrition and MS.

## U.S. Department of Agriculture

Visit [www.myplate.gov](http://www.myplate.gov) to learn about food groups, portion sizes, and healthy eating.

## National Institutes of Health Office of Dietary Supplements

Visit [www.ods.od.nih.gov/factsheets](http://www.ods.od.nih.gov/factsheets) to learn about dietary supplements.

## American Academy of Nutrition and Dietetics

Visit [www.eatright.org](http://www.eatright.org) for recipes, meal planning tips, nutrition recommendations, and to find a nutrition expert near you.

## National Center on Health, Physical Activity, and Disability

Visit [www.nchpad.org](http://www.nchpad.org) for recipes, cooking and shopping tips, and additional resources.

## EatingWell

Visit [www.eatingwell.com](http://www.eatingwell.com) for Mediterranean diet recipes, meal plans, and grocery lists.

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2. Tsogka A, Kitsos DK, Stavrogianni K. Modulating the gut microbiome in multiple sclerosis management: A systematic review of current interventions. *J Clin Med*. 2023(12):7610. doi: 10.3390/jcm12247610
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