



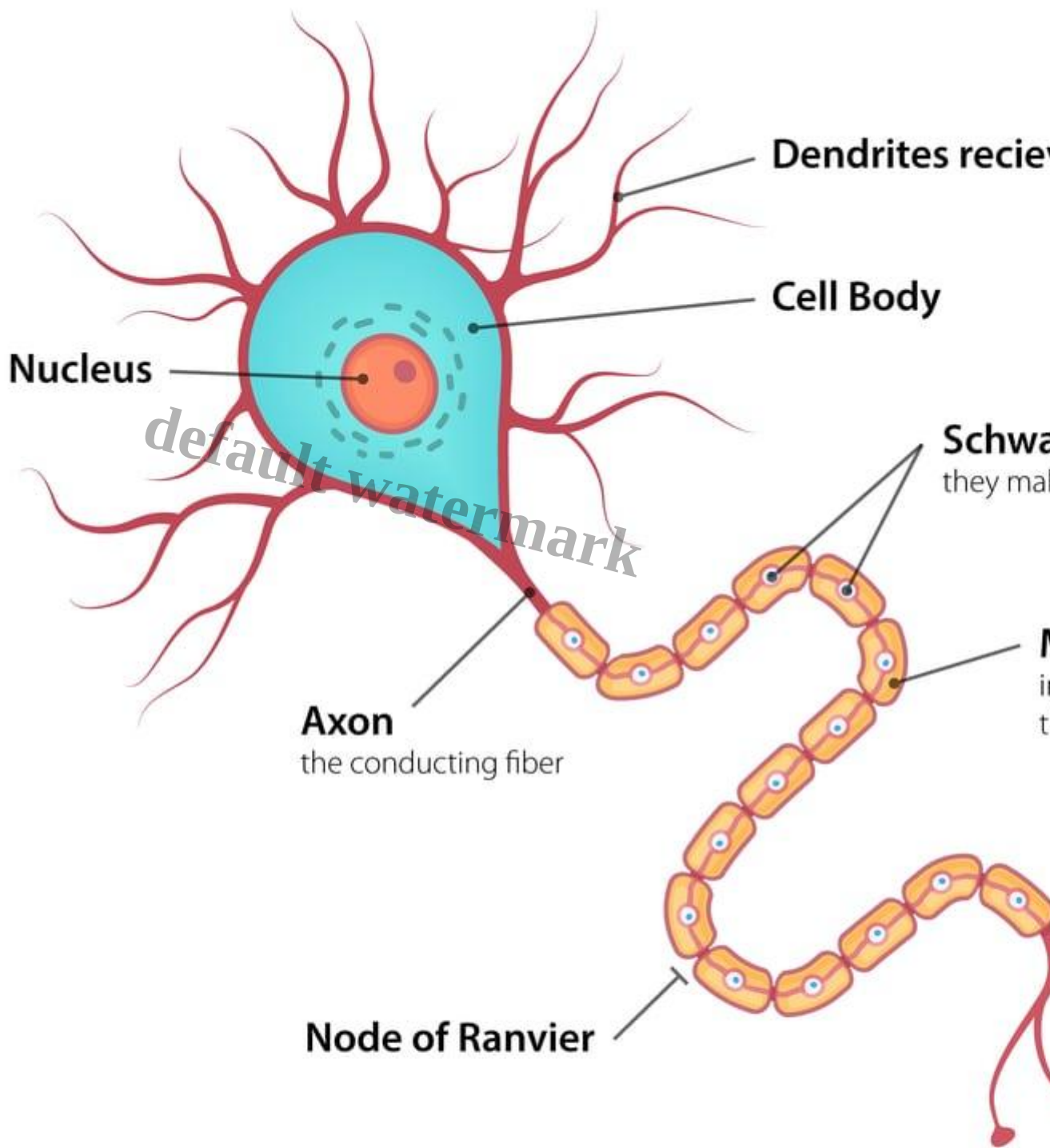
Multiple Sclerosis (MS) & Yoga

Description

About MS

- Multiple Sclerosis (MS) is the progressive destruction of the myelin sheaths of neurons in the [Central Nervous System](#).
- It is an autoimmune inflammatory condition in which the body's defense system recognizes the myelin basic protein (MBP) as foreign and attacks it.
- "Multiple sclerosis literally means 'many scars' an etymology which can indicate just how painful this disease can be." (Mary Smith)
- Signs and symptoms vary depending on the extent of nerve damage and on which nerves are affected. Symptoms may include problems with walking, balancing, thinking, speaking, and coordination.
- MS may be mild and sporadic or it may be progressive. (Susan Braden)
- Some people may suffer from chronic pain as a result. ([Chronic pain](#) is vastly different from acute pain and we recommend every yoga teacher get familiar with it. Yoga has excellent results in helping with chronic pain.)
- People who experience MS may be prone to [anxiety](#) and [depression](#) due to increasing debilitation.

The Anatomy



Neuron Structure

To begin with the bigger-picture, see [Nervous System Overview](#) and [Anatomy of the Brain](#).

About Neurons

The basic working unit of the nervous system is a cell called a neuron. The human brain contains about 100 billion neurons. The brain is made up of many networks of communicating neurons. In this way, different parts of the brain can talk to each other as well as work together to send messages to the rest of the body. National Institutes of Health, What are the parts of the nervous system?

- The nervous system includes a collection of nerves and neurons that transmit signals between different parts of the body.
- Some neurons are covered with an insulating sheath called myelin, made up of cholesterol and Myelin Basic Protein (MBP).
- Myelinated axons are white in appearance (often termed "white matter") and appear like strings of sausages.

Function of Myelin

- The myelin sheath increases the speed at which the electrical impulses travel to the neighboring neuron.
- The myelin sheath also helps to prevent the electrical current from randomly leaving the axon (the part of the neuron from which impulses are conducted).

The Effect of Multiple Sclerosis

- MS is the progressive destruction of the myelin sheaths of neurons.
- The sheaths deteriorate to scleroses, which are hardened scars or plaques. The myelin loses its structural and functional integrity, disrupting smooth neural communication.
- The destruction of myelin sheaths slows and short-circuits the conduction of nerve impulses. (Tortora)
- The more myelin that is destroyed, the slower and less effective the nerve impulses are. As the disease progresses, the nerves themselves can be damaged.

Research



MS & Yoga

Improvements in physical capabilities and quality of life in MS patients (2014) [link](#) and [link](#) and [link](#)

- Improvements in balance, walking, coordination and quality of life after eight weeks of practicing yoga
- Rutgers University

Multiple studies reported improvement in mental, physical and quality of life factors with MS patients (2014) [link](#)

- Studies have reported improvement in anxiety, depression, bladder function, pain, spasticity, weakness and walking.

Review of 7 randomized control trials with MS patients (2014) [link](#)

- Review of seven randomized trials on yoga for multiple sclerosis
- Positive short-term effects on fatigue and mood, but not on more objective physician-rated outcomes such as mobility or cognitive function
- Yoga seemed to be equally effective as exercise interventions in improving both patient-reported and physician-rated outcomes.

Pain & Yoga

Meditation reduced pain sensitivity (2011) [link](#)

- Brain scans demonstrated that mindfulness meditation can dramatically reduce sensitivity to pain â?? even more so than morphine.
- Published in the Journal of Neuroscience.

Randomized control trial: decreased pain & fatigue in CFS (2014) [link](#) and [link](#)

- People with chronic fatigue syndrome who were â??resistant to conventional therapy.â??
- Results after 9 weeks showed decreased fatigue.
- Some reported pain relief with no adverse effects.

Review of all randomized control trials published: superior results with chronic neck pain (2017) [link](#)

- A team examined all of the published randomized controlled studies in which adults with chronic neck pain were assigned to either a yoga intervention or a control group
- Analyses revealed that yoga provides superior results to usual care in the relief of neck pain intensity and neck pain-related disability
- In addition, yoga group reported better quality of life and improved mood compared to controls. Short-term reductions in pain, disability, and negative mood were found for both movement-based, and meditation-based yoga interventions.

Small qualitative study: Reduced pain & improved well-being in people with systemic lupus (2018) [link](#) and [link](#)

- In â??preliminary research, yoga showed qualitative improvements for women living with systemic lupus erythematosus (SLE)â??. Three research participants completed the eight-week (sixteen 60-

minute sessions) study and reported positive outcomes, including reduced pain, increased relaxation, and improved general well-being.â?•

- The study was to determine feasibility of expanding the research. â??Three yoga teachers living with SLE were interviewed to offer input on adapting yoga to those living with lupus, such as including restorative postures, alternatives for challenging inversions, and cooling breath practices. Some of the key features of lupus are fatigue and pain, which are episodic when the disease flares.â?•
- Complementary Therapies in Medicine

Significant improvements in pain levels, mood and functional capacity for those with chronic pain & depression (2020) [link](#) and [link](#) and [link](#)

- 28 participants aged 34 to 77 years who reported having chronic pain for at least one year
- 8 weeks of instruction in a mindfulness-based stress reduction (MBSR)
- 2.5-hour weekly instruction + home sessions with a goal of 30 min per day, 6x week.
- â??Small-scale study in a semi-rural population in Oregon where issues of affordability, addiction, and access to care are common.â?•
- â??Mindfulness meditation and hatha yoga were found to benefit patients with chronic pain and depression, leading to significant improvement in pain levels, mood, and functional capacity. â??
- â??Chronic pain often goes hand-in-hand with depression,â?• says Dr. Marske, who believes meditation and yoga are viable options for those seeking pain relief without pharmaceutical treatment. â??Mindfulness-based meditation and yoga can help restore both a patientâ??s mental and physical health and can be effective alone or in combination with other treatments such as therapy and medication.â?•
- Journal of the American Osteopathic Association

See Also

- [Research on the Impact of Yoga: Brain Structure & Function](#)
- [Research on the Impact of Yoga: Mental Health & Trauma](#)
- [Research on the Impact of Yoga: Pain, Inflammation & Conditions](#)

Contraindication

- A strong contraindication for people with MS is heat, as the heat can slow nerve conduction. Thus, Hot Yoga is contraindicated for people with MS. (Timothy McCall MD)

Take Care

Fatigue & Core Temperature Elevation

According to Dr Elizabeth Hartman, two of the main concerns for patients with MS who practice yoga are fatigue and heat sensitivity.

1. Fatigue is a concern because when the disease attacks the nerves, the central nervous system needs to spend extra effort to reroute its signals.
2. MS symptoms may temporarily worsen when a person's core temperature increases. Dr Hartman believes that a slow supported yoga practice in a cool room can significantly benefit people with MS. (Yoga Chicago)

No Two Cases the Same

- The uniqueness and complexity of each person means they will each experience practices in a particular way that may be different from someone else. Thus, as with all conditions and experiences, there is no "one right way" or universal fix.
- In addition, MS manifests differently in different people and "no two cases of MS are exactly the same."
- Teach and encourage students to experiment and observe the effect of various practices. Ensure they own their power to choose what works for them.

How Yoga Can Help



A big part of Eisenberg’s classes is mindfulness. “Being mindful has a way of bringing you into the present, so for those with MS who don’t know what they’ll wake up to or what the next day or month might bring, mindfulness can reduce anxiety and pain during everyday life challenges,” says Eisenberg.

Prevention

- Yoga’s ability to relieve stress can help to lessen the likelihood of flareups.

Support for Everyday Tasks

- Yoga can help people living with MS by giving them tools to help manage everyday tasks.

- For example, improved balance affects standing and walking, and strengthening and alignment help with standing up and sitting down. (National MS Society)

Symptom Relief & Recovery

- Yoga can speed the recovery from inflammatory attacks and help to manage symptoms. (Ram Rao, PhD)
- Particular aspects of yoga practice that can lead to symptomatic relief include heightened body awareness, breathing more deeply, improved balance, and learning to let go of “holding” in muscles.
- In addition, meditation has been shown to improve pain and overall physical health and vitality in patients with MS.
- Mindy Eisenburg teaches adaptive yoga to people with MS. In addition to the importance of mindfulness in reducing pain and anxiety, she notes how yoga provides empowerment and a means of self care and hope for her students. She adds that while the poses in yoga are important, breathing techniques that enhance the mind-body connection are most helpful to her students. (Everyday Health)

Additional Benefit

- How MS manifests over time can be quite variable. One of the beauties of yoga is that it can be adapted to meet a student’s changing needs.
- The adaptability of yoga helps not only the particular symptoms, but also the stress of coping with the variability of the disease.

SO MANY BENEFITS

What does yoga do for a person with MS? It improves physical function and quality of life. I am confident that I am stronger, more flexible, and less prone to falling than I would be without it. Yoga is helping me to heal from the inside out by encouraging me to look inside myself and soften in the places that are tight. After a yoga session, I feel self-empowered, and if I meditate every day, I am more focused and less prone to anxiety and desperation. My mind quiets, and so do I. “ Susan Braden

Yoga Practices



Considerations

These yoga teachers â?? who also themselves live with MS â?? offer a variety of suggestions from the yoga toolbox:

- Patrice Priya Wagner relies on breath awareness, breath practices, and Yoga Nidra to help quiet the nervous system.
- Karen Oâ??Donnel Clarke suggests addressing fatigue with *pranayama*. In addition, she prefers dynamic movement in and out of postures as opposed to long holds. She uses restorative poses to decrease stress and anxiety that often accompany the disease.

Chair Yoga / Accessible Yoga Pose Variations



Following are the postures that Rutgers University used in their study showing improvements in MS patients. (See Research above).

- Each pose here refers to the [Chair Yoga](#) version, which can mean a seated variation or a standing supported variation, or simply having a chair or wall for use if needed.
- Included are descriptions of the three versions offered for each pose.
- See 5 Yoga Poses for People with Multiple Sclerosis (+ Easy-to-Hard Variations) for excellent images of each variation.

Tadasana (Mountain Pose) [Asana Digest](#)

1. Seated Version
2. Standing with support, one arm raised
3. [Urdhva Hastasana \(Upward Salute\)](#) near a wall or chair

Ardha Uttanasana (Half Standing Forward Bend) [Asana Digest](#)

1. Seated Version
2. Hands to chair back, walk gently back into a Half Forward Bend
3. Begin in [Urdhva Hastasana \(Upward Salute\)](#) â?? Exhale, fold forward into Half Forward Bend, hand to chair back; inhale, lift to starting position

Virabhadrasana II (Warrior 2 Pose) [Asana Digest](#)

1. Chair Yoga Version, practicing over the chair seat
2. Back foot and hand to wall, front hand to chair back

3. From Version 2, extend front arm as in full pose

Bhujangasana (Cobra Pose) [Asana Digest](#)

1. Chair Yoga Seated Backbend, hands reaching back to hold chair back or seat
2. Floor version, chest on folded blanket
3. Floor version, unsupported

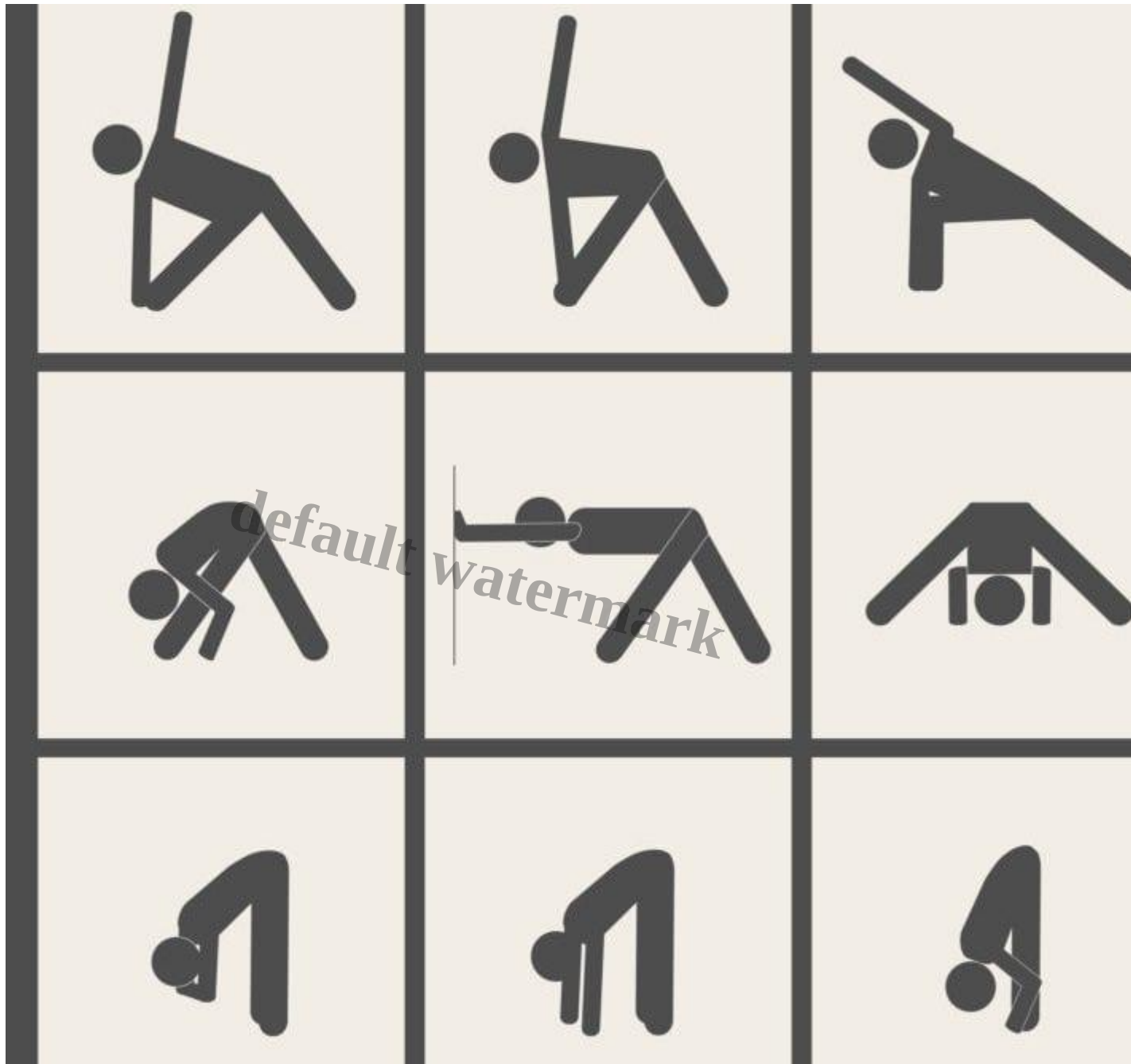
Reclined Twist [Asana Digest](#)

1. Chair Yoga Seated Twist as shown above
2. Reclined Twist, knees bent, resting on blankets
3. Reclined Twist, taking hold of one bent knee and drawing it across the body

See Also

- [Chair Yoga](#)
- [Pranayama & The Breath Hub](#)
- [Yoga Nidra](#)
- [Meditation Hub](#)
- [The Yoga MS Project](#)
- [The National MS Society](#) offers an online course for fitness instructors entitled Introduction to MS, providing important information about working with people with MS.

Sample Sequences



The unique combination of symptoms presented by individuals with this “designer disease” can make teaching a class of students with MS a challenge. For example, my current class of people with MS includes students who remain in their folded chairs, some who can stand and get down onto their mats, and others who can stand but don’t get on the mats because they can’t get back up again. Patrice Priya Wagner

If you are a member of Yoga International, you may wish to review Beth Spindler, Yoga for Multiple Sclerosis – A 45-minute video class designed for people living with MS.

In Yoga as Medicine, Dr Timothy McCall offers supported variations of the following postures as a practice for people with MS:

- [Baddha Konasana \(Bound Angle Pose\)](#)
- [Virahabarasana 2 \(Warrior 2 Pose\)](#)
- [Utthita Parsvakonasana \(Extended Side Angle Pose\)](#)
- [Utthita Trikonasana \(Extended Triangle Pose\)](#)
- [Virahabarasana 1 \(Warrior 1 Pose\)](#)
- [Parivrtta Parsvakonasana \(Revolved Side Angle Pose\)](#)
- [Paschimottanasana \(Seated Forward Bend\)](#)
- [Bharadvajasana \(Sage Twist\)](#)
- [Purvottanasana \(Upward Plank\)](#)
- [Savasana \(Corpse Pose\)](#)

Category

1. Uncategorized

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