

## **Mind-Body Strategies for Hypermobility and Chronic Pain**

This 4 class/seminar series on Mind-Body Strategies for hypermobility and chronic pain, and is a collaboration between [EDS Wellness](#) and Dr. Deborah Norris with [The Mindfulness Center](#) in Bethesda, MD.

### **The purpose of this series of 4 classes is based on two principles:**

1. Part of the RYS 200 Yoga Instructor Training Program is a Seva requirement. Seva is a series of 4 yoga classes taught to a particular community - free of charge. It's the community service requirement of the RYS 200 certification. Kendra Neilsen Myles picked the hypermobility/EDS community to teach classes to.
2. One of the projects that [EDS Wellness](#) has been working on is a mindfulness for hypermobility program with Dr. Francomano, based on her experience with a research study that she conducted years ago at NIH.

Originally, the Seva component of Kendra Neilsen Myles' Yoga Instructor Training Program and the project with Dr. Francomano under EDS Wellness were not one in the same. However, as time went on and because of Dr. Norris' and The Mindfulness Center's support of Wellapalooza and the work that EDS Wellness does, it made sense to combine efforts. The timing of both projects lined up as well.

Initially, classes will be offered 1x a week on Fridays at 1:30 pm and will last 4 weeks - November 4th - December 2nd, 2016. The hope is to continue offering these classes and the full program, including support groups regularly. We hope to be able either broadcast live or provide the video recordings in future.

**Class descriptions are below:**

**Friday, November 4th** - Intro to basic principles of mindfulness, yoga, and biology of hypermobility, including a short chair yoga demo (10 mins).

**Friday, November 11th** - Practicing Yoga safely with Hypermobility - Instruction on positions and modifications with hypermobility, includes 20 min gentle flow practice.

**Friday, November 18th** - Mind-Body Strategies for Hypermobility - Discussion on Dr. Francomano's study on mindfulness for hypermobility from NIH and John Kabat-Zinn's mindfulness program, includes 30 min meditation/restorative yoga practice.

**Friday, December 2nd** - Vinyasa Flow for hypermobility and chronic pain - 60 min class. Vinyasa flow yoga for hypermobility and chronic pain is a quicker paced, yet restorative practice. We will be moving the entire class. All levels welcome.

To book your spot, go to <http://edswellness.org/index.php/learn-with-edswellness/>

**And ... EDS Wellness has an App!**

Go to <https://appsto.re/us/N7zbfb.i> to download the EDS Wellness app and to book your spot in 1 or all of our classes! The EDS Wellness App also allows you to make HelpLine appointments and more! (Also available on Google Play!)

**The EDS Wellness HelpLine is live!** You can schedule 15min phone appointments and also send emails to [helpline@edswellness.org](mailto:helpline@edswellness.org). Direct link to HelpLine appointment scheduling - <http://edswellness.org/index.php/make-an-appointment/>

Link to post shared on EDS Wellness -

<http://edswellness.org/index.php/2016/10/16/eds-wellness-helpline-live-download-eds-wellness-app-make-appointment-register-classes-seminars-conferences/>

## Class 1 - Intro to basic principles of mindfulness, yoga, and biology of hypermobility, including a short chair yoga demo (10 mins).

- **Biology of Hypermobility – see information provided separately.**
- **What is Mindfulness?**

*“**Mindfulness** is the psychological process of bringing one's attention to the internal and external experiences occurring in the present moment,<sup>[1][2][3]</sup> which can be developed through the practice of meditation and other training.<sup>[2][4][5]</sup> The term "mindfulness" is a translation of the Pali-term *sati*,<sup>[6]</sup> which is a significant element of some Buddhist traditions. The recent popularity of mindfulness in the West is generally considered to have been initiated by *Jon Kabat-Zinn*.<sup>[7][8]</sup>*

*Large population-based research studies have indicated that the practice of mindfulness is strongly correlated with well-being and perceived health.<sup>[9][10]</sup> Studies have also shown that *rumination* and worry contribute to mental illnesses such as depression and anxiety,<sup>[11][12]</sup> and that mindfulness-based interventions are effective in the reduction of both rumination and worry.<sup>[11][13]</sup>*

*Clinical psychology and psychiatry since the 1970s have developed a number of therapeutic applications based on mindfulness for helping people who are experiencing a variety of psychological conditions.<sup>[8]</sup> Mindfulness practice is being employed in psychology to alleviate a variety of mental and physical conditions, such as bringing about reductions in depression symptoms,<sup>[14][15][16]</sup> reducing stress,<sup>[15][17][18]</sup> *anxiety*,<sup>[14][15][18]</sup> and in the treatment of *drug addiction*.<sup>[19][20][21]</sup> Recent studies demonstrate that mindfulness meditation significantly attenuates pain through multiple, unique mechanisms.<sup>[22]</sup> It has gained worldwide popularity as a distinctive method to handle emotions.*

*Clinical studies have documented both physical and mental health benefits of mindfulness in different patient categories as well as in healthy adults and children.<sup>[3][23][24]</sup> Programs based on MBSR and similar models have been widely adopted in schools, prisons, hospitals, veterans' centers, and other environments.”*

**<https://en.wikipedia.org/wiki/Mindfulness>**

- **What is Meditation?**

*“Mindfulness meditation is practiced sitting with eyes closed, cross-legged on a cushion, or on a chair, with the back straight.<sup>[web 1]</sup> Attention is put on the movement of the abdomen when breathing in and out,<sup>[25]</sup> or on the awareness of the breath as it goes in and out the nostrils.<sup>[26]</sup> If one becomes distracted from the breath, one passively notices one's mind has wandered, but in an accepting, non-judgmental way and one returns to focusing on breathing. A famous exercise, introduced by Kabat-Zinn in his MBSR-program, is the mindful tasting of a raisin,<sup>[27]</sup> in which a raisin is being tasted and eaten mindfully.<sup>[28][note 1]</sup>*

*Meditators start with short periods of 10 minutes or so of meditation practice per day. As one practices regularly, it becomes easier to keep the attention focused on breathing.<sup>[29]</sup> Eventually awareness of the breath can be extended into awareness of thoughts, feelings and actions.<sup>[26]</sup>*

*Recent interest has emerged for studying the effects of mindfulness on the brain using neuroimaging techniques, physiological measures and behavioral tests.<sup>[3][30][31]</sup> Research on the neural perspective of how mindfulness meditation works suggests that it exerts its effects in components of attention regulation, body awareness and emotional regulation.<sup>[32]</sup> When considering aspects such as sense of responsibility, authenticity, compassion, self-acceptance and character, studies have shown that mindfulness meditation contributes to a more coherent and healthy sense of self and identity.<sup>[33][34]</sup> Neuroimaging techniques suggest that mindfulness practices such as mindfulness meditation are associated with “changes in the anterior cingulate cortex, insula, temporo-parietal junction, fronto-limbic network and default mode network structures.”<sup>[35][36]</sup> Further, mindfulness-induced emotional and behavioral changes have been found to be related to functional and structural changes in the brain.<sup>[36]</sup> It has also been suggested that the **default mode network** of the brain can be used as a potential biomarker for monitoring the therapeutic benefits of meditation.<sup>[37]</sup>*

**<https://en.wikipedia.org/wiki/Mindfulness>**

- **What is Yoga?**

“**Yoga** (*/ˈjoʊɡə/*<sup>[1]</sup> *Sanskrit*, योग *Listen*) is a group of *physical, mental, and spiritual* practices or disciplines which originated in *ancient India*. There is a broad variety of Yoga schools, practices, and goals<sup>[2]</sup> in *Hinduism, Buddhism, and Jainism*.<sup>[3][4][5]</sup> Among the most well-known types of yoga are *Hatha yoga* and *Rāja yoga*.<sup>[6]</sup>

The origins of yoga have been speculated to date back to pre-*Vedic Indian* traditions, it is mentioned in the *Rigveda*,<sup>[note 1]</sup> but most likely developed around the sixth and fifth centuries BCE, in ancient India's *ascetic* and *śramaṇa* movements.<sup>[8][note 2]</sup> The chronology of earliest texts describing yoga-practices is unclear, varyingly credited to Hindu *Upanishads*<sup>[9]</sup> and Buddhist *Pāli Canon*,<sup>[10]</sup> probably of third century BCE or later. The *Yoga Sutras of Patanjali* date from the first half of the 1st millennium CE,<sup>[11][12]</sup> but only gained prominence in the West in the 20th century.<sup>[13]</sup> Hatha yoga texts emerged around the 11th century with origins in *tantra*.<sup>[14][15]</sup>

Yoga gurus from India later introduced yoga to the west,<sup>[16]</sup> following the success of *Swami Vivekananda* in the late 19th and early 20th century.<sup>[16]</sup> In the 1980s, yoga became popular as a system of *physical exercise* across the Western world.<sup>[15]</sup> Yoga in Indian traditions, however, is more than physical exercise, it has a meditative and spiritual core.<sup>[17]</sup> One of the six major orthodox schools of Hinduism is also called *Yoga*, which has its own epistemology and metaphysics, and is closely related to Hindu *Samkhya* philosophy.<sup>[18]</sup> Many studies have tried to determine the effectiveness of yoga as a complementary intervention for *cancer, schizophrenia, asthma, and heart disease*.<sup>[19][20]</sup> The results of these studies have been mixed and inconclusive, with cancer studies suggesting none to unclear effectiveness, and others suggesting yoga may reduce risk factors and aid in a patient's psychological healing process.<sup>[19][20]</sup>”

<https://en.wikipedia.org/wiki/Yoga>

- **Types of Yoga – see information provided separately.**
- **Additional types of Yoga**

- Hot Yoga

*“Hot yoga brings its own external heat source to heat up a room to around 100 degrees. But it’s important to mention that you produce your own internal heat when you exercise, and yes, you can consider yoga moderate exercise. **Hot yoga** uses static holds (and some flow), which means you are lengthening specific parts of the body depending on what pose you are in and then contracting other parts of the body to keep you stable, which means you are isometrically contracting the muscles that are keeping you stable.*

*How does your body produce its own internal heat? Several chemical reactions occur in the cells of the muscle tissue. These cells then release energy, which is in the form of heat. The rate of chemical reaction increases during muscle contraction thereby increasing internal heat of the body. This concept is important later on as we continue to talk about heat and its effects on the body.*

*Hot yoga pretty much gives you a heat-on-heat response, which can lead to heat exhaustion or even heat stroke. When internal heat rises, vasodilation occurs in the blood vessels in the skin and you begin to sweat to cool the body to keep the body within the normal range of body temperature. So you are sweating to cool the body down, you have an increase in blood flow, but the room is heated to over 100 degrees, therefore you have no way of actually cooling your body down, which can cause a disruption of internal body temperature.”*

**<https://breakingmuscle.com/yoga/hot-yoga-the-dangers-and-myths-you-need-to-know>**

*“Because of its intensity and potential to cause heat-related illness, hot yoga isn't for everyone. Be sure you check with your doctor before trying hot yoga if you have any health concerns.*

*If you have heart disease, problems with dehydration or heat intolerance, or have had heat-related illness (such as heatstroke) in the past, it is probably best to skip hot yoga. Pregnant women should also pass on this type of yoga. If you have no health concerns and you want to try a hot yoga class, be sure to drink plenty of water, and stop if you feel dizzy, lightheaded or sick in any way.”*

**<http://www.mayoclinic.org/healthy-lifestyle/consumer-health/expert-answers/hot-yoga/faq-20058057>**

- Bikram Yoga

*“Bikram yoga is a 90-minute program that consists of a series of 26 postures. The postures require lengthy, forceful and well-controlled contractions of all major muscle groups. The demanding nature of the poses and the heat are designed to raise your heart rate and tire your muscles. Bikram Yoga “is a vigorous form of yoga performed in a studio that is heated to 105 F (40 C) and has a humidity of 40 percent.”*

<http://www.mayoclinic.org/healthy-lifestyle/consumer-health/expert-answers/hot-yoga/faq-20058057>

- Power Yoga

“Power Yoga is a fitness-based vinyasa practice. An offshoot of Ashtanga Yoga, it has many of the same qualities and benefits, including building internal heat, increased stamina, strength, and flexibility, as well as stress reduction. Teachers design their own sequences, while students synchronize their breath with their movement. The original Power Yoga was developed and founded by Beryl Bender Birch, but is now a term used to describe many vigorous vinyasa styles.”

<http://www.yogajournal.com/category/yoga-101/types-of-yoga/power-types-of-yoga/>

- Baptiste Yoga

*“The program is divided into four sections, each named for one of the traditional elements. “Water” moves through two variations of Sun Salutation. “Fire” consists of a series of familiar standing postures. “Earth” includes both balancing standing postures and backbends. “Wind” works with floor exercises like abdominal strengtheners, groin and hip openers, and a sitting forward bend and twist, and finishes with a short breathing exercise. The sections may be done individually or in combination for a shorter or longer practice. Baptiste, who owns [Power Yoga](#) centers in both Boston and Philadelphia, has a sincere presence and expressive delivery. He emphasizes both the physical challenges of the practice, as well as its more meditative qualities. But, as noted last issue, it seems to me that the term “[Power Yoga](#)” is redundant, since power, along with health and self-knowledge, has always been one of the implied goals of [hatha yoga](#). Nevertheless, this session would be an inspiring practice companion for experienced beginners and intermediate students.”*

<http://www.yogajournal.com/article/lifestyle/i-power-precision-power-yoga-for-beginners-i-with-baron-baptiste/>

## - Aerial Yoga

*“Aerial yoga combines acrobatic arts and anti-gravity asana, but it’s also an accessible practice that can help you find more length in your spine and safe alignment in your poses.*

*Flying yoga—forms in which you’re suspended off the ground Cirque du Soleil–style—may have seemed faddish at first, but it’s still gaining momentum. That’s in part because of its surprising physical benefits, including spinal decompression, pain relief, and ease in [inversions](#) and other [challenging poses](#), and also because it’s a potent teaching tool for finding better alignment in most any [asana](#).”*

**<http://www.yogajournal.com/article/types-of-yoga/learn-fly-aerial-yoga/>**

## - Acro Yoga

*“AcroYoga elevates the connection between you and others through movement, connection, and play. Acro in Greek means high, or elevated. Yoga in Sanskrit commonly translates to notions of union, or joining. The experience of taking flight with AcroYoga instantly dissolves fears and invites practitioners to tap into new and infinite possibilities of communication, trust, and union. By combining acrobatics, yoga, and healing arts, the practice of AcroYoga has built a community of active teachers and practitioners all over the world.*

*AcroYoga International was founded by Jason Nemer and Jenny Sauer-Klein in 2003. They were the first to codify the AcroYoga practice in 2006. Their work culminated into not only manuals, but also cultivated formalized educational paths that have promoted the highest levels of safety, expression, and straight up fun.”*

**<https://www.acroyoga.org/the-practice>**

## - Prenatal Yoga

*“Much like other types of childbirth-preparation classes, prenatal yoga is a multifaceted approach to exercise that encourages stretching, mental centering and focused breathing. Research suggests that prenatal yoga is safe and can have many benefits for pregnant women and their babies.*

*Research suggests that prenatal yoga can:*

- *Improve sleep*
- *Reduce stress and anxiety*

- Increase the strength, flexibility and endurance of muscles needed for childbirth
- Decrease lower back pain, nausea, carpal tunnel syndrome symptoms, headaches and shortness of breath
- Prenatal yoga can also help you meet and bond with other pregnant women and prepare for the stress of being a new parent.”

<http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/prenatal-yoga/art-20047193>

- Chair Yoga

“**Chair yoga** is a gentle form of yoga that is practiced sitting on a chair, or standing using a chair for support. It is in the process of being recognized formally as a type of yoga distinct from other types, such as *lyengar Yoga* or *Ashtanga yoga*. Often the poses, or **Asanas**, are often adaptations of *Hatha yoga* poses.

Frequently the chair yoga student is unable to participate in a traditional yoga class due to the effects of *aging* or *disabilities*. However, Chair yoga is a great practise for everyone, as it deepens flexibility and strengthens personal body awareness. Chair yoga classes are sometimes made available at senior fitness centers, retirement facilities, and *adult daycare centers*.

Chair yoga is usually taught as a way to achieve physical and mental fitness, not as a way of life, as are most other yoga classes in the *Western world*.

Most people in chair yoga classes have health issues, and many are there because a health care professional that knows about their problems recommended it. A good chair yoga teacher will ask about, and be aware of any limitations the student might have. Chair yoga has helped people with the symptoms of many health issues including: *hypertension* (high blood pressure), *anxiety*, *chronic fatigue syndrome*, *arthritis*, *vertigo (medical)*, *multiple sclerosis*, *Osteoporosis*, *Osteopenia*, *carpal tunnel syndrome*, *clinical depression*, and *chronic pain*.

Chair Yoga is one of the gentlest forms of yoga available.

Complicated maneuvers and complex movements are not present in a chair yoga class. Within this type of yoga class, you can cover standing, seated, and prone postures. Most of these classes use the chair only, due to the difficulty of getting down or up off the floor.

Chair Yoga classes are often seen in senior centers, people with assisted living lifestyles, nursing homes, adult day care centers, and physical rehabilitation

units. Clients can learn many kinds of yoga postures, breathing techniques, meditation, and ways of relaxation, with the aid of a chair.”

[https://en.wikipedia.org/wiki/Chair\\_Yoga](https://en.wikipedia.org/wiki/Chair_Yoga)

- Yoga Therapy

**“Yoga therapy is the process of empowering individuals to progress toward improved health and wellbeing through the application of the teachings and practices of yoga.**

*Yoga is a scientific system of self-investigation, self-transformation, and self-realization that originated in India. The teachings of yoga are rooted in the Vedas and grounded in classical texts and a rich oral tradition. This tradition recognizes that the human being’s essential nature is unchanging awareness that exists in relationship to and identification with the changing phenomena of the empirical world.*

*The yoga tradition views humans as a multidimensional system that includes all aspects of body; breath; and mind, intellect, and emotions and their mutual interaction. Yoga is founded on the basic principle that intelligent practice can positively influence the direction of change within these human dimensions, which are distinct from an individual’s unchanging nature or spirit. The practices of yoga tradition- ally include, but are not limited to, asana, pranayama, meditation, mantra, chanting, mudra, ritual, and a disciplined lifestyle.*

*Yoga therapy is the appropriate application of these teachings and practices in a therapeutic context in order to support a consistent yoga practice that will increase self-awareness and engage the client/student’s energy in the direction of desired goals. The goals of yoga therapy include eliminating, reducing, or managing symptoms that cause suffering; improving function; helping to prevent the occurrence or re- occurrence of underlying causes of illness; and moving toward improved health and wellbeing. Yoga therapy also helps clients/students change their relationship to and identification with their condition.*

*The practice of yoga therapy requires special- ized training and skill development to support the relationship between the client/student and therapist and to effect positive change for the individual.*

*Yoga therapy is informed by its sister science, Ayurveda. As part of a living tradition, yoga therapy continues to evolve and adapt to the cultural context in which it is practiced, and today, it is also informed by contemporary health sciences. Its efficacy is supported by an increasing body of research evidence, which contributes to the growing understanding and acceptance of its value as a therapeutic discipline.”*

[http://c.ymcdn.com/sites/www.iayt.org/resource/resmgr/Docs\\_Articles/IAYTDef\\_YogaTherapy\\_Ed\\_Stand.pdf](http://c.ymcdn.com/sites/www.iayt.org/resource/resmgr/Docs_Articles/IAYTDef_YogaTherapy_Ed_Stand.pdf)

- **Yoga Lifestyle in Chronic Illness**

- Trust in our bodies to heal
- Focus on what we can do, not what we can't
- Positive Mindset
- Not have dependence on external factors and healthcare providers in our overall health and well-being (always)
- Self-discovery and empowerment
- Movement – our muscles do what our tissues cannot
- Mind-Body connection in chronic illnesses and wellness
- Consistent and becomes part of wellness/self-care routine

<http://www.mindbodygreen.com/0-5737/10-Ways-to-Practice-Yoga-in-Life-Without-Practicing-Yoga-on-a-Mat.html>

<http://www.yogajournal.com/category/lifestyle/>

**Other factors to consider:**

- hands, wrists, ankles
- genetics
- financial
- other barriers to wellness
- nutrition
- use of props
- fatigue
- pain

**Class 2 - Practicing Yoga safely with Hypermobility - Instruction on positions and modifications with hypermobility, including 20 min gentle flow practice.**

- **Intro**
- **Review of class #1**
- **Articles written on Yoga for Hypermobility**
- **Yoga Vocab - <http://www.anamayaresort.com/yoga-glossary-most-important-yoga-vocabulary-words/>**
  
- Asana
- Sun Salutation
- Vinyasa
- Savasana
- Namaste
- <http://www.pocketyoga.com/Pose>
  
- **Positions – see pictures**
- **Wrist, ankle and neck considerations – wrist information provided separately**
- **Resources:**
  
- Articles written – see information provided separately
  
- 1. **‘The Hypermobile Yogi – Practicing Yoga with Joint Hypermobility Syndrome’ - <http://strengthflexibilityhealtheds.com/2016/01/15/the-hypermobile-yogi-practicing-yoga-with-joint-hypermobility-syndrome/>**
- 2. **‘YOGA AND HYPERMOBILITY – MANAGING CHRONIC PAIN AND JOINT STABILIZATION WITH EHLERS-DANLOS SYNDROMES/HYPERMOBILITY SYNDROMES’ - <http://strengthflexibilityhealtheds.com/2015/10/03/yoga-and-hypermobility/>**
  
- Instructors to follow:
  
- 1. Jennie Rawlings Yoga – <http://www.jennirawlings.com>
- 2. Jess Glenny - <http://www.movingprayer.co.uk>
- 3. Kendra Neilsen Myles (me) – [www.hypermobileyogi.com](http://www.hypermobileyogi.com)
  
- Yoga Swag and Props:

- Websites:

1. Yoga Journal – [www.yogajournal.com](http://www.yogajournal.com)
2. Yoga International – [www.yogainternational.com](http://www.yogainternational.com)
3. Do You Yoga – [www.doyouyoga.com](http://www.doyouyoga.com)
4. Gaia – [www.gaia.com](http://www.gaia.com)

- Apps:

1. Pocket Yoga – [www.pocketyoga.com](http://www.pocketyoga.com)
2. Cody App – [www.codyapp.com](http://www.codyapp.com)

- Videos:

1. You Tube Channel - <https://www.youtube.com/channel/UCdecltNSmBhHUiKnckYfi4w>
2. Many more available upon request

**Class 3 - Mind-Body Strategies for Hypermobility, Discussion on study on mindfulness for hypermobility and chronic pain from NIH and John Kabat-Zinn's mindfulness program, including 30 min meditation/restorative yoga practice.**

- **Welcome**
- **Review of last 2 classes**
- **Discussion of NIH Study from 2000**
- **John Kabat-Zinn's Mindfulness Program and Resources**
- **What is Restorative Yoga?**
- **30 min Meditative/Restorative Yoga Practice**
- **Wrap-up, Discussion on Class #4 and Feedback**

**Class 4 Friday, December 2nd - Vinyasa Flow for hypermobility and chronic pain - 60 min class. Vinyasa flow yoga for hypermobility and chronic pain is a quicker paced, yet restorative practice. We will be moving the entire class. All levels welcome.**