

The background features a dark blue gradient with a subtle pattern of white dots. Overlaid on this are several circular and semi-circular elements. A prominent feature is a large circular scale on the left side, with numerical markings from 140 to 260 in increments of 10. Other elements include various concentric circles, dashed lines, and arrows, some of which are partially visible or cut off by the frame. The overall aesthetic is technical and scientific.

LIVING WITH MSA

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MULTIPLE SYSTEM ATROPHY

Parkinsonism

Autonomic dysfunction

Cerebellar signs

Pyramidal signs

Classified as MSA-C (cerebellar type) or MSA-P (parkinsonian)

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AUTONOMIC DYSFUNCTION IN MSA

- Orthostatic hypotension: SBP drop of > 30 mm Hg or DBP drop of > 15 mm Hg after standing 3 mins
- GU dysfunction
 - Impotence in men presenting feature in 37%, occurs in 96% with progression
 - Urinary symptoms from detrusor hyperreflexia, urethral sphincter weakness, failure of detrusor contraction
- GI dysfunction
 - Constipation in 57 %
 - Dysphagia

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EDUCATION

- Support groups
- Internet information
- Doctor
- Prepare

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MINDFULNESS

- a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations,

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MINDFULNESS PRACTICE

- Focus on breath
- Pay attention to body sensations while breathing
- Observing body sensations, activity in our minds, thoughts, and emotions from moment to moment

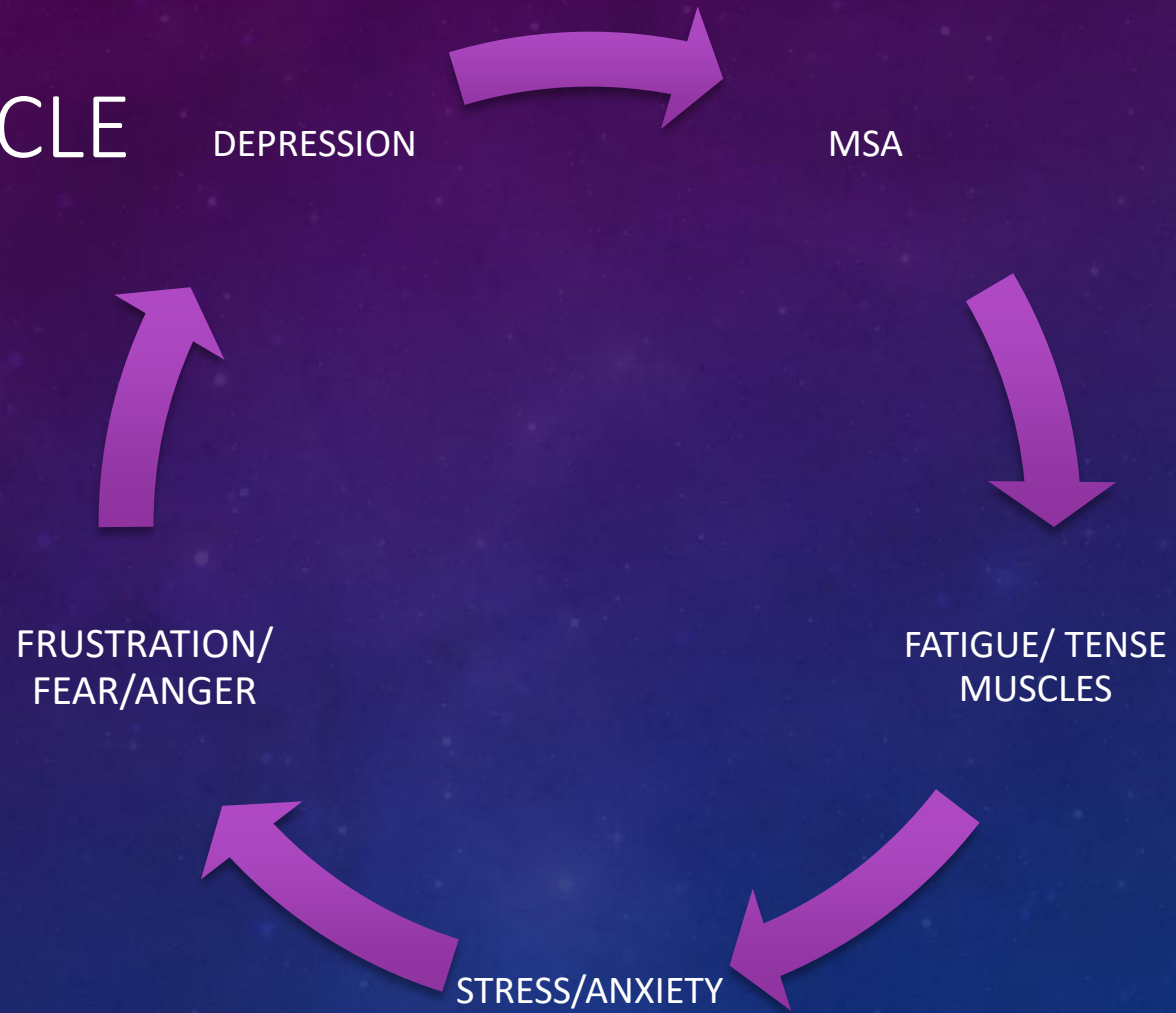
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WHY PRACTICE MINDFULNESS

- What does our mind do during the day?
- Past
 - Memories
 - Regrets
- Future
 - Anticipating
 - Planning
 - Worrying
- Drains energy, obstacle to experiencing moments of stillness and contentment

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SYMPTOM CYCLE



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MANAGE STRESS

- Chronic stress floods your brain with cortisol, which leads to impaired memory.
- To better understand if easing tension changes your brain, Harvard researchers studied men and women trained in a technique called mindfulness-based stress reduction (MBSR). This form of meditation — which involves focusing one's attention on sensations, feelings and state of mind — has been shown to reduce harmful stress hormones. After eight weeks, researchers took MRI scans of participants' brains that showed the density of gray matter in the hippocampus increased significantly in the MBSR group, compared with a control group.

FOODS FOR YOUR BRAIN

- Caffeine



- Spices

- Herbs and spices such as black pepper, cinnamon, oregano, basil, parsley, ginger and vanilla are high in antioxidants, which may help build brainpower.
- Circumin, the ingredient in Tumeric may be helpful. bonds to amyloid plaques that accumulate in the brains of people with Alzheimer's disease." Animal research shows curcumin reduces amyloid plaques and lowers inflammation levels. A study in humans also found those who ate curried foods frequently had higher scores on standard cognition tests.

MEDITERANIAN DIET

- A heart-friendly Mediterranean diet — fish, vegetables, fruit, nuts and beans — reduced Alzheimer's risk by 34 to 48 % in studies conducted by Columbia University.
- A study from Vanderbilt University found that people who drank three or more servings of fruit or vegetable juice a week had a 76 % lower risk for developing Alzheimer's disease than those who drank less than a serving weekly.

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OMEGA 3

- Fish contains omega-3s—and people with the lowest levels of omega-3 fatty acid in their blood cells had smaller brains compared to those with high levels

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WALNUTS

- People who ate a small handful every day improved their working memory by 19 percent, according to a Spanish study. Polyphenols in walnuts are thought to reduce improve communication between neurons



SPINACH

- Filled with magnesium, these greens can help dilate blood vessels, boosting blood flow throughout the body and brain



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OLIVE OIL

- Fatty acids and polyphenols help to reduce inflammation in your joints and cells.



FLAX SEED



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VITAMIN B12



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FOLATE



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DARK CHOCOLATE

- Just a few ounces of cocoa can help you concentrate improving blood flow to the brain. Stick with as pure as you can get.



CALCIUM



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SLEEP

Cognitive benefits of sleep and their loss due to sleep deprivation



The background features a dark blue gradient with a starry space pattern. On the left side, there are several circular gauges or dials with white markings and numbers, including 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, and 260. Some gauges have arrows pointing in different directions. The main text is centered on the right side.

GETTING THE MOST FROM YOUR DOCTOR'S VISIT

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PREPARE FOR YOUR APPOINTMENT

- Time is limited, make the most of it
- Prioritize
- Come with paper and pen
- Write down your questions

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DON'T COME ALONE

- Bring someone with you to your visit
- Another set of ears
- Someone who knows you and what goes on day to day and can help provide information

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BE HONEST



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MEDICATIONS

- Make a list of your medications
 - Name of the medication
 - Strength of the medication
 - Brand name or generic
 - The times that you take the medication
 - The amount of medication taken at each dose
 - Include ALL medications including supplements and OTC medications
- Alternatively bring the bottles of medication

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QUESTIONS

- Do not be afraid to ask questions
- If you do not understand something, ask for more of an explanation
- Ask about the future
- Ask about research
- Bring articles that you have questions about to your visit

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OPINIONS

- Do not be afraid to ask for another opinion
- Tell your doctors if you want them to communicate with other health care providers involved in your care

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EXERCISE

- Resistance training
- Aqua therapy
 - Hypotension less likely in the water
- Postural control
- Core strength
- Safety
- Wheelchair assesment