Workout Your Worries:
Exercise and Anxiety in MS

August 9, 2016

Presented by:

Teva Pharmaceuticals | Acorda Therapeutics
Mallinckrodt Pharmaceuticals Autoimmune and Rare Diseases
US Bank | United Way of Eagle River Valley
THE POWER TO BE MORE THAN YOUR MS

www.mscando.org | 800-367-3101
How to Ask Questions During the Webinar:

- **Chat Feature** – Type in your questions using the chat box on the lower left hand side of your screen.
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Biogen | EMD Serono

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Anxiety and MS

• An abnormal and overwhelming sense of apprehension and fear often marked by physiological signs, doubt concerning the reality and nature of the threat, and self-doubt about one’s capacity to cope with it.

• One of the most common mood-related symptoms experienced by over 54% of MS patients.

• 18.6% of MS patients have general anxiety disorder at any time (compared to 5.1% in the general population).

• Loss of functions and altered life circumstances caused by the disease can be significant causes of anxiety.

Anxiety/Stress Response Vs. Relaxation/Rest Response

Parasympathetic
- Constricts pupil
- Stimulates salivation
- Inhibits heart
- Constricts bronchi
- Stimulates digestive activity
- Stimulates gallbladder
- Contracts bladder
- Relaxes rectum

Sympathetic ganglia
- Cervical
- Thoracic
- Lumbar

Sympathetic
- Dilates pupil
- Inhibits salivation
- Relaxes bronchi
- Accelerates heart
- Inhibits digestive activity
- Stimulates glucose release by liver
- Secretion of epinephrine and norepinephrine from kidney
- Relaxes bladder
- Contracts rectum

Anxiety in the DSM 5

*Generalized Anxiety Disorder (GAD)
Specific Phobia
Social Anxiety Disorder (Social Phobia)
Agoraphobia
Panic Disorder
Panic Attack
Post-Traumatic Stress Disorder
Obsessive-Compulsive Disorders
Substance/Medication-Induced Anxiety Disorder
Anxiety Disorder Decision Tree

1. Significant anxiety-related symptoms and impaired function
   - Also moderate/severe depression?
     - Yes: Treat depression
     - No: Predominant symptom focus

   a. Trauma history and flashbacks?
     - Check for PTSD
   b. Obsessions ± compulsions
     - Check for OCD
   c. Uncontrollable worry about several areas
     - Check for GAD
   d. Intermittent panic/anxiety attacks and avoidance
     - Fear of social scrutiny
     - Check for social phobia
     - Discrete object/situation
     - Check for specific phobia
     - Some uncued/spontaneous
     - Check for panic disorder

Generalized Anxiety Disorder

Two Key Features:

• Excessive or chronic worry, “what if…?” type statements

• High level of physical tension and nervousness
Generalized Anxiety Disorder

For Diagnosis:

• Difficulty stopping or turning off the worry
• Symptoms must be present for at least 6 months
• 3 or more of the following:
  • Restlessness, feeling keyed up, or on edge
  • Easily fatigued
  • Difficulty concentrating or mind goes blank
  • Irritability
  • Muscle tension
  • Sleep disturbance
MS and Anxiety

Up to 40% of persons with MS experience anxiety

GAD: ~20% (6.2% in general population)
Associated with exacerbations, pseudo-exacerbations, depression

Panic Disorder: 2.1%  OCD: 5.7%
Social phobia: 2.1%  PTSD: 2.1%
Specific phobia: 2.9%
Reducing Anxiety:

Exercise
Exercise and Mood

- Elevation of endorphins
- Exercise alone/group, indoors/outdoors, or supervised/unsupervised all may be helpful
- Exercise is not a cure for anxiety
- Active people less depressed than inactive people
Move your muscles..... 
Aid your Anxiety

- Exercise may be as effective as anti-depressants or anti-anxiety medications
  - May minimize incidence of depressive relapse
- Resistance training and mixed training may be more effective than aerobic alone for depression management in one study
- Aerobic exercise seems to be most effective type of exercise thus far
- Unclear the exercise intensity required to help with anxiety/depression/stress management
Aerobic Exercise: Research to Real Life

• 20 minutes treadmill walking (light, moderate, or high intensities) resulted in 45 minutes of mood improvements
• Arm Bike reduced depressive symptoms in more advanced MS
• More frequent sessions generally more effective
• Start to feel some short term effect within 5 minutes of the aerobic activity
• 12-13/20 RPE increase to 15-16/20
  • Medications can interfere with HR response
• Duration of 10-15 minutes increase to 20-30 minutes

*General recommendation:* 2-3x/week for 20-30 minutes at intensity of 12-16/20
Rating of Perceived Exertion Scale (RPE)


http://www.crossfit1080.com/2014/08/your-hearts-reaction-to-exercise-while-crossfitting/
Reducing Anxiety: Cognitive Behavioral Therapy
Cognitive Behavioral Therapy (CBT)

what you think and do affects the way you feel.

Thoughts

Trigger

Emotions

Behaviors

Body Sensations
Trigger, Situation, or Environment (CBT)

A diagnosis of MS/ Living with MS
Financial Concerns
Negative feedback from a work supervisor
Conflict with a significant other or loved one
Getting honked at by another driver
History of abuse
Death of a loved one
Polling question #1

• What has triggered your anxiety?

A diagnosis of MS/ Living with MS
Financial Concerns
Negative feedback from a work supervisor
Conflict with a significant other or loved one
Getting honked at by another driver
History of abuse
Death of a loved one
Thoughts (CBT)

What was going through your mind?

What were the images in your mind?
Behaviors or Actions (CBT)

What did you do? How did you react?

Isolating oneself from others
Crying
Checking your heart rate
Avoiding (specific people, social situations, flying, driving, leaving your house, doctor appointments)
Procrastination
Reassurance Seeking
Avoidance
Suppressing thoughts
Body Sensations (CBT)

How did your body feel?

- Tired
- Cold Sweats
- Pounding heart
- Fast breathing, or breathing difficulty
- Stomach problems
- Insomnia
- Dizziness
- Pain
Polling Question #2
How does you respond to anxiety?

- Isolating oneself from others
- Crying
- Avoiding people and/or situations
- Suppressing thoughts
- Fatigue
- Cold Sweats
- Pounding heart
- Fast breathing, or breathing difficulty
- Stomach problems
- Insomnia
- Dizziness
- Pain
- Other
## Put It All Together (CBT)

<table>
<thead>
<tr>
<th>Situation</th>
<th>Thought</th>
<th>Body Sensation</th>
<th>Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering a new job or returning to school</td>
<td>“What if my MS symptoms increase and I can’t keep up?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At a party</td>
<td>“My father looks too unsteady to carry that plate of food…”</td>
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<tr>
<td>Considering a new job or returning to school</td>
<td>“What if I have an exacerbation? What if my symptoms progress and I can’t keep up?”</td>
<td>Pounding heart, insomnia</td>
<td>Avoid submitting an application</td>
</tr>
<tr>
<td>At a party</td>
<td>“My father looks too unsteady to carry that plate of food…”</td>
<td>Pounding heart, breathing quickens</td>
<td>Run over and grab his plate</td>
</tr>
<tr>
<td>Just finished yearly MRI, waiting for results</td>
<td>“What if they find something? I won’t be able to cope if my MS symptoms progress”</td>
<td>Insomnia, cold sweats, stomach pain</td>
<td>Check your medical record daily, call the clinic, read about MRI results and MS online</td>
</tr>
</tbody>
</table>
• Identify what you are thinking
• Evaluate the thoughts, can they be changed?
• Schedule Worry Time
• Thought Stopping

Thoughts

One very important behavior that can impact anxiety is exercise!
Intervention - Body Sensations (CBT)

Relaxation Techniques – Why?

Engages the Parasympathetic Nervous System

- Slows the heart rate
- Lowers blood pressure
- Slows breathing rate
- Reduces muscle tension
Reducing Anxiety:

Progressive Muscle Relaxation
Progressive Muscle Relaxation

1. Feet
2. Lower Legs
3. Upper Legs
4. Stomach
5. Upper Arms
6. Back
7. Shoulders
8. Chest
9. Lower Arms
10. Hands
11. Neck
12. Face

www.pinterest.com
A Quick Exercise.....Huge Impact

1. Sit on a chair.
2. Scrunch up your face... then relax it.
3. Tense your arms... then relax them.
4. Tense up your shoulders and chest... then relax them.
5. Tense up your legs... then relax!
6. Breathe in relaxation... breathe out tension.

Reducing Anxiety:

Yoga & Breathing Exercises
How Does Yoga Help?

• Decreases heart rate
• Decreases respiration rate
• Lowers blood pressure
• Improved heart rate variability
Yoga: Research to Real Life

• 3x/week for 8 weeks positively impacted depression, fatigue, and anxiety in people with MS

• Large review suggested that yoga had positive short term effect on mood in people with MS
Yoga: Real Life

YOGA AND MULTIPLE SCLEROSIS
A JOURNEY TO HEALTH AND HEALING
Loren M. Fishman, M.D. & Eric L. Small


www.amazon.com
Deep Breathing: Stress Reducer & Strength Increaser!

• Research demonstrates respiratory muscle training/intentional breathing may:
  • Reduce stress
  • Reduce fatigue
  • Improve strength of breathing muscles
  • Minimum of 3 days/week for 30 minute duration effective

• Effective exercise option for “MS Fatigue Days”

• Manage fatigue by increasing rest time between activities OR “sprinkle” through the day
  • 1-3 minutes
Respiratory Muscles

breathing in

breathing out

chest expands
diaphragm contracts

ribs

diaphragm contracts

diaphragm relaxes

lung

Sternomastoid
Scalene

External Intercostal
Internal Intercostal

Costal Diaphragm

Diaphragm

Crural Diaphragm

External Oblique

Internal Oblique

Transverse abdominis

Rectus abdominis

http://g09respirationr3a.wikispaces.com/(4)%09+Breathing+%26+gas+exchange

http://origin-els-cdn.com/content/image/1-s2.0-S1569904808001134-gr1.jpg
Gasping Facts

• Approximately 30-80% weakness of inspiratory and expiratory muscles in **ambulatory** individuals with MS

• Approximately 20-70% weakness of inspiratory and expiratory muscle strength in **non-ambulatory** individuals with MS
Deep Breathing: Practice

• Diaphragmatic Breathing

  1. Sit comfortably with trunk supported and feet flat on the floor
  2. Breathe in through your nose for a count of 3-4 seconds
     • Feel your belly fill with air
     • Try not to raise your chest
  3. Breathe out through your mouth as if you were slowly blowing out a candle
     • Feel your belly flatten

http://callhealthylife.com/diaphragmatic-breathing-technique/
Reducing Anxiety: Acceptance & Commitment Therapy
Acceptance and Commitment Therapy (ACT)

- **Acceptance**: Open up
- **Defusion**: Watch your thinking
- **Psychological Flexibility**: Be present, open up & do what matters
- **Values**: Know what matters
- **Committed action**: Do what it takes

Be here now: contact with the present moment
Acceptance and Commitment Therapy (ACT)

- Live in the present moment: *mindfulness*
- Acceptance: be flexible
  - Chinese Finger Trap
- Values:
  - Family, physical health, community, spirituality or faith, recreation, education, friendships, vocation, parenting, intimate relationships or romantic partner
- Thinking: having a thought vs. buying a thought
- Committed Action
Mindfulness: Notice 5 Things

• Pause

• Look around, and notice 5 things you can see

• Listen carefully, and notice five things you can hear

• Notice 5 things you can feel in contact with your body (e.g., a watch on your wrist)
Exercise:
something done or performed as a means of practice or training
www.dictionary.com
How to start or stay consistent with exercise?!

http://blog.fibertown.com/2015/09/01/the-million-dollar-question-part-2/
Other Strategies for Anxiety/Stress Management

• What works for you?
• What has not worked for you?

We Welcome Your Thoughts.....

http://veganstrategist.org/tag/slow-opinion/
## Anxiety Action Plan

### Anxiety:
- Example: Fear of falling limiting
  - __________________________
  - __________________________
  - __________________________
  - __________________________

### Action:
- Example: Physical Therapy
  - __________________________
  - __________________________
  - __________________________
  - __________________________
Thank You!

Meghan Beier
Psychologist

Mandy Rohrig
Physical Therapist

Questions/Comments
More Resources!

• Deep breathing
  http://www.cmhc.utexas.edu/stressrecess/Level_Two/breathing.html

• Autogenic training
  http://www.webmd.com/balance/tc/autogenic-training-topic-overview

• Progressive muscle relaxation
  http://www.cmhc.utexas.edu/stressrecess/Level_Two/progressive.html

• Visualization and guided imagery
  http://services.unimelb.edu.au/counsel/resources/audio

More Resources: https://mind-bodyhealth.osu.edu/resources

Make your own recording using a script
Can Do MS Resources

eNEWS
your best life update

Q&A

Can Do Library

Find these resources at www.MSCanDo.org.
Exercise & Physical Activity with MS

Mood Changes and MS: Managing Anxiety

Exercise as Part of Everyday Life
Health Insurance: What You Need To Know

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