Diaphragmatic Breathing

DIAPHRAGMATIC BREATHING FACTS

Fact #1: Brain Growth
Controlled breathing during meditation can increase the size of your brain by increasing cortical thickness.

Fact #2: Heart Health
Deep breathing practices can improve heart rate variability (the interval of time between heartbeats) in healthy individuals.

Fact #3: Lower Stress Levels
Shallow breathing may mean that you’ve activated your “fight-or-flight” stress reaction—focusing on breathing can induce the relaxation response and create a sense of calm.

Fact #4: Mood Management
Focusing on breathing can alleviate symptoms of anxiety, depression, and other negative emotions. Research has shown that 30 minutes of breathing before a performance reduced musicians anxiety.

Fact #5: Reduce Test Anxiety
Studies have shown that students who practiced deep breathing meditation before an exam perceived less anxiety, self-doubt and concentration difficulties vs. those that did not deep-breathe.

*Adapted from cited information on The Huffington Post

STRESS, BREATHING AND THE BODY

- Shallow breathing from the chest can indicate that your body is in “fight or flight” mode—its natural reaction to stress that is characterized by activation of the sympathetic nervous system.
- Deep breathing, or diaphragmatic breathing, can trigger the body's “relaxation response” - a physiological state of deep relaxation characterized by activation of the parasympathetic nervous system.

PROPER TECHNIQUE

- First—Find a comfortable, quiet place to sit or lie down (lying down is easiest).
- Place one hand on your chest and the other just below your belly button.
- Start by observing your breath. Take a few normal breaths followed by a slow, deep breath. The air coming in through your nose should move downward into your lower belly. Let your abdomen expand fully. Now breathe out through your mouth (or your nose, if that feels more natural).
- Feel your hand rise about an inch each time you inhale and fall about an inch each time you exhale. Your chest will rise slightly, too, in concert with your abdomen.
- Alternate normal and deep breaths several times. Pay attention to how you feel when you inhale and exhale normally and when you breathe deeply.
- Remember to relax your belly so that each inhalation expands it fully.
- Try completing 5–6 diaphragmatic breaths at a time

ADVANCED PRACTICE

- As you sit comfortably with your eyes closed, blend your breathing with helpful imagery and a focus word or phrase that will help you relax.
- Imagine that the air you breathe in washes peace and calm into your body. As you breathe out, imagine that the air leaving your body carries tension and anxiety away with it. As you inhale, try saying this phrase to yourself: “Breathing in peace and calm.” And as you exhale, say: “Breathing out tension and anxiety.”
- When you first start, 10 minutes of breath focus is a reasonable goal. Gradually add time until your sessions are about 15 to 20 minutes long.
When should I practice diaphragmatic breathing?

Most people believe that allotting a specific time of day or week for “stress management” is optimal, however waiting until later means maintained stress and negative consequences for you mind-body health.

Diaphragmatic breathing is an effective way for managing stress-in-the-moment and an easy skill to utilize throughout the day. You can try to practice:

- In the morning or before bed
- Waiting for class to start
- Before or after meal times
- When you need a quick energy boost
- Before or after a stressful interaction
- Before a presentation, exam or other performance situation
- Walking to class, work or an extra-curricular activity
- ...Basically anytime!
- During meditation
- Watching television, YouTube, or while surfing the internet
- During meditation

For some individuals, diaphragmatic breathing may be challenging, distracting or cause uncomfortable physiological reactions. If you notice this happen, please stop. Although diaphragmatic breathing is an excellent stress management tool, it is not for everyone (and that’s okay!).

To minimize the impact of potential unpleasant reactions to this practice, start off with a small number of breathes at a time. Try taking 3-4 breathes initially and gradually work your way up day-by-day.

My Plan

Take some time to develop a strategy for integrating diaphragmatic breathing into your daily & weekly routine.

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Additional Resources

ON CAMPUS
Counseling and Psychological Services:
http://vaden.stanford.edu/about/staff_caps.html or call 650.723.3785

Buddhist Community at Stanford:
M-F 8AM Meditation Sessions
Health Promotion Services:
http://vaden.stanford.edu/wellness/index.html
Health Improvement Classes
http://hip.stanford.edu/

Other Resources
Access Stanford’s Virtual Health Library:
https://vaden.stanford.edu/health_library/index.html

Harvard Medical School:
http://www.health.harvard.edu/newsletters/
Harvard_Mental_Health_Letter/2009/May/Take-a-deep-breath
American Medical Student Association:
http://www.amsa.org/healingthehealer/breathing.cfm
STRESS-LESS @ STANFORD

PROCRASTINATION FACTS

Fact #1: It's rarely about time management: Procrastination is much more about unrealistic expectations, avoidance, coping with stress, or fear of failure.

Fact #2: Coping: Procrastination is an attempt to cope with external pressures and negative internal experiences. So, it feels adaptive in the moment.

Fact #3: Procrastination & stress: In reality, procrastination is linked with higher stress levels, illness, and lower academic performance among college students.

Fact #4: Creating bad habits: Experiencing positive outcomes from last-minute work and cramming, plus holding beliefs like “I only work well under pressure,” can fuel the habit.

OVERCOMING PROCRASTINATION

The first step is to determine the specific contributors of your procrastination.

POTENTIAL CONTRIBUTORS

Negative self-talk

Feeling: down and defeated before working; down, defeated, and distracted when working
Sounds like:

- a mean, internal coach downplaying your abilities, identity, and performance (e.g., “I’m lousy at X,” “I’m behind everyone else in this class”)
- interferes with starting work (“What’s the point? I’m just going to produce lousy work”)
- interferes with continuing work (“I’m producing lousy work. What’s the point?”)

Concentration difficulty

Feeling: boredom by the content of academic tasks or overwhelm from their complexity
Looks like:

- attending to everything but work
- caught up by external distractions (e.g., nonconducive work environment, appealing social opportunities)
- caught up by internal distractions (e.g., questioning personal relevance of the work, questioning how to tackle tasks)

Fear of failure and perfectionism look like:

Feeling: worry about future outcomes of academic tasks
Looks like:

- Overthinking options for how to complete work
- Spending unnecessary time on certain parts of a task
- Over-planning for work rather than producing it
CREATING CONDITIONS FOR SUCCESS

Create an environment and circumstances that promote productivity

- Identify the time of day you have the most energy and focus—attempt to do work during these times
- Cut out external distractions. Shape your work environment to be inherently motivating—consider preferences for lighting, background noise/music, presence of people, etc.
- Carve out working blocks (50 minutes or less) with beginning and end times for each task
- Schedule a reward/break after every working block (eg, brief chat with a friend, snack, going for a walk)

Address emotional barriers

- Make a high stress, high demand task more manageable by breaking it down into smaller pieces
- Think of procrastination as avoidance—recognize that by avoiding the task, you may be making it more stressful
- Identify each action as a “choice point.” When you determine what behavior to engage in next—work or procrastination?

Time to ACT!

- Just START! Perfectionism can be paralyzing, so strive for progress instead
- Trust that it is better to be a perfectionistic editor than a perfectionistic creator —suspend self-critique until after you have finished one or more bite-sized tasks
- Set limits to how long you will actually study/write/prepare. Rather than setting aside an entire day, set limits to allow for both work and play

My Action Plan

Take some time to develop a strategy for countering procrastination and integrating new work habits into your routine.

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Additional Resources

Campus Resources:
Counseling and Psychological Services:
http://vaden.stanford.edu/about/staff_caps.html or call 650.723.3785

Vaden Virtual Health Library on procrastination:
https://vaden.stanford.edu/health_library/procrastination.html

Schwab Learning Center:
http://studentaffairs.stanford.edu/oae/schwab

Center for Teaching and Learning: academic skills coaching (undergraduates):
https://undergrad.stanford.edu/tutoring-support/academic-skills-coaching

Additional Readings/Sources:
Why we procrastinate:
http://nauti1.us/issue/9/time/why-we-procrastinate

Chapters on procrastination
In The Feeling Good Handbook by David Burns

Why wait? The science behind procrastination:

Still procrastinating?
The no regrets guide to getting it done by Joseph R. Ferrari
STRESS FACTS

Fact #1: Your body does not care if it's a big stress or a little stress: Extended stress (big or small) can cause premature aging, impaired cognitive functioning, and drained energy.

Fact #2: Stress can make smart people do dumb things: Stress causes “cortical inhibition” and makes it difficult to perform at our peak physical, emotional and mental peak.

Fact #3: People can become numb to their stress: We can adjust to high levels of stress and not notice its impact, however this can lead to bad decisions, over-reactions, or health problems.

Fact #4: We can control how we respond to stress: We can become more attuned to stress in our bodies before it manifests in mentally, physically or emotionally.

Fact #5: The best strategy is to manage stress in the moment: Most people take a binge-purge approach to stress management—believing that waiting until the weekend or later in the day to “de-stress” is optimal, however waiting until later means continued stress and negative consequences for your mind-body health.

*Figure and facts adapted from HeartMath*

SELF-CARE

Self-care is one way to begin to manage stress and its impact on our well-being. Self-care consists of intentional actions taken to promote professional, physical, emotional, and spiritual health.

What are you already doing for self-care? (Check all that apply)

<table>
<thead>
<tr>
<th>Physical</th>
<th>Emotional</th>
<th>Spiritual</th>
<th>Student Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Eat regularly, healthy meals</td>
<td>□ Make time for self-reflection</td>
<td>□ Meditate</td>
<td>□ Set limits</td>
</tr>
<tr>
<td>□ Exercise</td>
<td>□ Journal</td>
<td>□ Be in nature</td>
<td>□ Find peer support</td>
</tr>
<tr>
<td>□ Sleep</td>
<td>□ Read something for fun!</td>
<td>□ Be optimistic</td>
<td>□ Prioritize your needs</td>
</tr>
<tr>
<td>□ Massages</td>
<td>□ Identify comforting people and activities and seek them out!</td>
<td>□ Create</td>
<td>□ Make time to complete tasks</td>
</tr>
<tr>
<td>□ Stretching</td>
<td>□ Spend time with loved ones</td>
<td>□ Find meaning</td>
<td>□ Identify tasks that are exciting and rewarding</td>
</tr>
<tr>
<td>□ Breathing exercises</td>
<td>□ Allow yourself to feel emotions as they come</td>
<td>□ Be inspired</td>
<td>□ Say “no” to extra responsibilities</td>
</tr>
<tr>
<td>□ Regular medical care</td>
<td>□ Laugh!</td>
<td>□ Volunteer</td>
<td>□ Strive for work-life balance</td>
</tr>
<tr>
<td>□ Take time off when you need it!</td>
<td></td>
<td>□ Nurture fulfilling relationships</td>
<td>□ Get involved in fulfilling extra-curriculars!</td>
</tr>
<tr>
<td>□ Dance, swim, walk run—do some other physical activity that is fun!</td>
<td></td>
<td>□ Practice gratitude</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Make time away from technology</td>
<td></td>
</tr>
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</table>
What's missing from your self-care routine? What would you like to add?

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<th>Professional</th>
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<td>Set limits</td>
</tr>
<tr>
<td>Exercise</td>
<td>Journal</td>
<td>Be in nature</td>
<td>Have a peer support group</td>
</tr>
<tr>
<td>Sleep</td>
<td>Read something for fun!</td>
<td>Be optimistic</td>
<td>Negotiate your needs</td>
</tr>
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<td></td>
<td></td>
</tr>
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</table>


My Self-Care Plan

Take some time to develop a strategy for integrating self-care into your daily & weekly routine.

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Additional Resources

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Counseling and Psychological Services:
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http://vaden.stanford.edu/wellness/index.html
Office of Religious Life:
http://religiouslife.stanford.edu or call 650.723.1762
Happiness + Health Programs:
http://vaden.stanford.edu/wellness/positivesych.html

**OTHER RESOURCES**
Developing your own self-care plan:
http://www.socialwork.buffalo.edu/students/self-care/
Access Stanford’s Virtual Health Library:
https://vaden.stanford.edu/health_library/index.html
American Medical Student Association
http://www.amsa.org/healingthehealer/breathing.cfm
Harvard Medical School
http://www.health.harvard.edu/newsletters/
Harvard_Mental_Health_Letter/2009/May/Take-a-deep-breathe
SLEEP HEALTH

LACK OF SLEEP CAUSES PARTS OF YOUR BRAIN TO SLOW OR SHUT DOWN COMPLETELY.

- Math & Logic: Slow thought processes and difficulty forming logical conclusions to problems
- Frontal Lobe: Creative Thinking, lack of imagination or originality, lack of focus, and stuttering
- Nigrostriatum: Memory & Learning, difficulty learning new tasks and making novel connections
- Prefrontal Cortex: Judgment & Visuals, blurred vision, hallucinations
- Temporal Lobe: Language, Blurred Speech

DO’S AND DON’TS OF SLEEP HYGIENE

DO...

- Create a sleep routine: Wake up and fall asleep around the same time (allow yourself an extra hour on each end for the weekends)
- Limit your caffeine intake: Caffeine later in the day can mean difficulty sleeping at night, try stopping caffeine around 2PM. Also avoid chocolate, other sugary foods, and nicotine which can also contribute to sleeplessness
- Go outside: Get plenty of natural light during the day by going outside - it helps regulate your body’s natural rhythms
- Stay active: Exercising 3-4 times a week can result in higher quality and more sleep
- Make your bedroom a sleep sanctuary: When it’s time for sleep, create an environment conducive to sleep. If possible make it dark and quiet
- Relax before bed: Spend time before bed reading a book or writing in a journal to unwind

DON’T...

- Over/under eat: Going to bed too full or too hungry can impact sleep, aim to eat your last meal 2-3 hours before bed
- Use electronics before bed: It can disrupt your body’s natural rhythms by tricking it into thinking its daytime—avoid all electronics (tv, computer, phone) 30-60 minutes before bed
- Consume alcohol: Although alcohol may initially help you fall asleep, it leads to lighter, less restorative sleep
- Lie in bed awake: If you are awake after 20 minutes, get up and engage in a relaxing activity until you feel sleepy
- Take naps after 3PM: Late afternoon naps will disrupt your regular sleep cycle (as will naps over one hour!)
- Engage in mentally stimulating activities right before bed: This can prevent your mind and body from being able to relax enough to fall asleep—remember, take 30-60 minutes before bed to relax and unwind!
**What's missing from your sleep routine? What would you like to add?**

<table>
<thead>
<tr>
<th>Daytime</th>
<th>Nighttime</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Wake up within an hour of your</td>
<td>☐ Set a bedtime and stick to it during</td>
<td>☐ Wear clothing/use bedding that you feel</td>
</tr>
<tr>
<td>&quot;normal&quot;, weekday time</td>
<td>the week!</td>
<td>comfortable in and won’t leave you feeling too</td>
</tr>
<tr>
<td>☐ Stop caffeine use around 2PM</td>
<td>☐ Stop using electronics at least one</td>
<td>hot or cold while sleeping</td>
</tr>
<tr>
<td>☐ Exercise vigorously for ~30 minutes,</td>
<td>☐ Avoid caffeine, sugar, chocolate and</td>
<td>☐ Eliminate noise by using a fan or</td>
</tr>
<tr>
<td>4 times a week</td>
<td>nicotine before sleep</td>
<td>white noise machine—ear plugs may also help!</td>
</tr>
<tr>
<td>☐ Spend time outdoors, soaking up natural</td>
<td>☐ Do not use alcohol as a sleep aid—</td>
<td>☐ Make sure your bed is comfortable</td>
</tr>
<tr>
<td>light</td>
<td>although it may help you fall asleep,</td>
<td>and that your pillow and mattress do not cause</td>
</tr>
<tr>
<td>☐ Avoid napping during the day—if you nap,</td>
<td>once its effects wear off it can cause</td>
<td>neck and back pain during the night</td>
</tr>
<tr>
<td>nap wisely! Limit naps to 10-30 minutes and</td>
<td>interrupted, less restful sleep</td>
<td>☐ Avoid clock checking—it can cause</td>
</tr>
<tr>
<td>before 5PM</td>
<td>☐ No large meals three hours before bed—this</td>
<td>additional stress and further prevent</td>
</tr>
<tr>
<td>☐ Skip the “snooze” button—instead of</td>
<td>can lead to indigestion and keep you up at</td>
<td>you from sleeping</td>
</tr>
<tr>
<td>disrupting your sleep cycle, set your</td>
<td>night</td>
<td></td>
</tr>
<tr>
<td>alarm a little later to get the extra sleep</td>
<td>☐ Perform calming activities before bed like</td>
<td></td>
</tr>
<tr>
<td>you need</td>
<td>reading, journaling, taking a bath</td>
<td></td>
</tr>
</tbody>
</table>

**My Sleep Plan**

Take some time to develop a strategy for maintaining healthy sleep practices.

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**Additional Resources**

**ON CAMPUS**

**Counseling and Psychological Services:**
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**Health Promotion Services:**
http://vaden.stanford.edu/wellness/index.html

**Stanford Center for Sleep Sciences and Medicine**
http://stanfordhospital.org/clinicsmedServices/clinics/sleep/

**Other Resources**

**The Better Sleep Council:**
http://www.bettersleep.org/

**Access Stanford’s Virtual Health Library:**
https://vaden.stanford.edu/health_library/index.html

**The National Sleep Foundation**
http://sleepfoundation.org/