SENSORY TOOLS FOR MINDFUL LIVING

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“We are all Sensory Beings, yet our experiences are unique”
Dunn, W. 2009. p. 15

sensory tools

Tools to enhance our sensory experience and increase our focus in the present moment without filters or lens of judgment.

mindfulness

Jon Kabat–Zinn defines mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, & nonjudgmentally to the unfolding of experience moment by moment” (Kabat–Zinn, 2003, pp. 145).

Qualities of Mindfulness...trust, openness, loving kindness, nonjudgmental, gentleness, patience, curiosity, non-attachment, equanimity, empathy, acceptance...

Anything can be used as an object of focus in a mindful practice. Observing the object or task mindfully through your senses will increase one’s ability to be present moment by moment.
the brain in three parts
Siegel, D. 2010, pp. 14–22

The Reptilian brain AKA the primitive brain

The Brainstem: a communication highway; regulates basic bodily functions – including heart rate, breathing, sleeping & eating – via the spinal cord and nervous system.

The Mammalian brain AKA the emotional brain

Limbic system – key parts – Amygdala & Hippocampus: The Amygdala can prompt an instant survival response; activated by fear. The Hippocampus integrates neural firing from separate parts of the brain to form memories.

The "New Mammalian" brain AKA the thinking brain

Neo Cortex: In the posterior parietal cortex our perception of the world is formed through our senses. The premotor cortex interacts with the environment as it plans and controls voluntary muscle movements. Abstract thinking takes place in the prefrontal cortex where we form our concept of time, sense of self and moral judgments.

autonomic nervous system
Ross, G. 2009 p. 28

Regulates all the body’s basic autonomic functions and is composed of the Sympathetic and Parasympathetic branches. It is responsible for monitoring conditions in the internal environment and bringing about changes therein.
sympathetic nervous system
Ross, G. 2009 p. 31

The gas pedal of our nervous system; it gets us ready for action. **Regulates arousal**, increasing activity during times of stress -- either positive or negative.

A **sympathetic charge** in our system increases heart rate, breathing and blood pressure. Blood shifts away from our stomach and kidneys to our muscles to allow for quicker movement. Our blood vessels constrict and the blood drains away from the skin, which turns pale and cold. Pupils dilate, eyelids retract, and our eyes focus.

parasympathetic nervous system
Ross, G. 2009 p. 31

The brake pedal of our nervous system; it helps us relax after arousal. It helps us **reorganize and regenerate** after threat.

A **parasympathetic response** helps us let go of muscle tension. It lowers heart rate and blood pressure; slows and deepens the breath; & aids in digestion. Blood returns to the vessels (skin flushed and warm again). It also allows the immune system to fully function.

body’s response to stress

**Three responses to perceived stress**: Fight, flight or freeze. **Fight or flight** – an active response of the sympathetic nervous system. **Freeze** – a parasympathetic response when the brain perceives there is no way out.
range of resiliency
Ross, G. 2009 p. 29

A healthy balanced nervous system will gently flow back and forth from a sympathetic charge to a parasympathetic calming phase, producing a sense of well being.

Trauma often causes a person’s range of resiliency to narrow. Hence the person’s sensory thresholds lower and they easily become dis-regulated.

self harming bx & dissociation

“Self-harm refers to a wide range of behaviors that involve the individual engaging in behavior which causes damage, mutilation or destruction of the body” (Feigenbaum, J. 2010, p.116).

Dissociation is a parasympathetic defensive response to an overwhelming experience, feeling or sensation – a freeze response.

research on mindfulness meditation

Increases:
• cognitive functioning
• memory, decision making, and focus
• emotion regulation
• ability to regulate emotions
• positive emotions
• immune response
Decreases:

- negative emotions
- fear response
- impulsive behavior
- mood disturbance

mind the gap

The brain sends a message to move .3 sec before the awareness of the desire to move – then you have .2 sec before voluntary movement occurs (Libet, 1983). Mindfulness allows one to respond rather than react.

"Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.” Viktor Frankl – Man’s Search for Meaning (1946).

4 major sensory patterns
Dunn, W. 2008

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<thead>
<tr>
<th>Passive</th>
<th>Active</th>
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<tr>
<td>high</td>
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<tr>
<td>Bystander</td>
<td>Seeker</td>
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<tr>
<td>Low registration</td>
<td>Sensory Seeking</td>
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<td>low</td>
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<tr>
<td>Sensor</td>
<td>Avoider</td>
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<tr>
<td>Sensory Sensitive</td>
<td>Sensory Defensive</td>
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sensory antidotes for symptoms

**Anxiety/Agitation:** weighted modalities; isometrics; proprioceptive exercises; walking; fidgets; clay; calming music; tea

**Psychosis:** decrease environmental stimulation; less directive approach; heavy work activities; exercise; music; movement; sensory exploration

**Depression:** mindful activities; exercise; alerting scents & foods; upbeat music; bean bag tapping

**Mania:** directive approach; grounding activities; heavy work activities; weighted modalities; clay; slow music

Mindful Eating

Using all your senses to **explore**, **savor** and **taste** the food you eat.

**Gratitude** for elements (sun, water, soil, etc.) and people who played a part in growing and delivering the food that is in front of you.

Acknowledging **responses** to food (likes, neutral or dislikes) without judgment.

Learning to be **aware** of physical hunger and satiety cues to guide your decision to begin eating and to stop eating. Pausing before you eat to ask yourself, *is this a physical hunger or an emotional hunger?*

Keeping a food **journal** keeps you accountable. Write down everything you eat during the day.

For those struggling with urges to binge, have them write out the foods they plan to binge on. Then set a timer for a limited (10–20 min.) binge period.
tips for teaching mindfulness

Set a place and a time for a **daily practice**.

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Create an **intention** for the day

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______________________________________________________

**When teaching** mindfulness: center yourself; breathe...

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______________________________________________________

Use metaphors & **be present** with what is

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At the **end of the day** take time to let go of the day

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Practice an **attitude of gratitude**

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<table>
<thead>
<tr>
<th>senses (Dunn, W. 2008, pp.21–27)</th>
<th>mindfulness exercises</th>
<th>sensory tools</th>
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</thead>
<tbody>
<tr>
<td><strong>visual / vision</strong></td>
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<tr>
<td>Sensory receptors in the eyes categorize light, shape, &amp; color to give us a map of our world.</td>
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<td><strong>tactile / touch</strong></td>
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<td>Touch sensors respond to light touch, texture, temperature, pain &amp; vibration sending an altering message.</td>
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<td><strong>auditory / hearing</strong></td>
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<td>Sound receptors categorize tone, pitch, volume, &amp; rhythm to inform us of space &amp; distance.</td>
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<tr>
<td><strong>olfactory / smell</strong></td>
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<td>Smell sensors are primal; they can connect us to emotions &amp; memories.</td>
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<tr>
<td><strong>gustatory / taste</strong></td>
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<td>Oral senses report flavor – sweet, sour, salty, &amp; bitter– as well as texture and temperature.</td>
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<td><strong>proprioceptive</strong></td>
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<td>Movement against resistance activate position-sense receptors to increase awareness of body parts.</td>
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<td><strong>vestibular</strong></td>
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<td>Head moving through space activates movement sensors to let you know where you are in space.</td>
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<td><strong>deep pressure</strong></td>
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<td>Deep pressure receptors are activated by heavy touch; they give the brain an organizing effect.</td>
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**Favorites**

*Disclaimer – Presenter has no financial interest in products mentioned below.*

**Apps to increase mindfulness**

- 3D Brain: Cold Spring Harbor Lab
- Bowls: Oceanhouse media
- Circadia: Simple machine
- HD Camera: Topgametech
- Headspace: Headspace
- Insight Timer: Spotlight six
- Koi pond: The blimp pilots
- Relax with Andrew: M. Schneider
- Therafish: Neuron age
- White Noise: TMsoft

**Authors**

on mindfulness

Donald Altman; Tara Brach; Pema Chodrom; Jon Kabit–Zinn; Kristin Neff; Sharon Salzberg

on the brain

Rick Hanson, Candice Perk; Robert Sapolsky; Daniel Siegel; Jeffrey Schwartz

on kids & mindfulness

Laurie Greco & Steven C. Hayes; Susan K. Greenland; Peter Levine & Maggie Klien
References


