



# Make waves

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COMMUNITY EDUCATION DAY



**BREAK  
THE SILENCE.**

Lindner Center  
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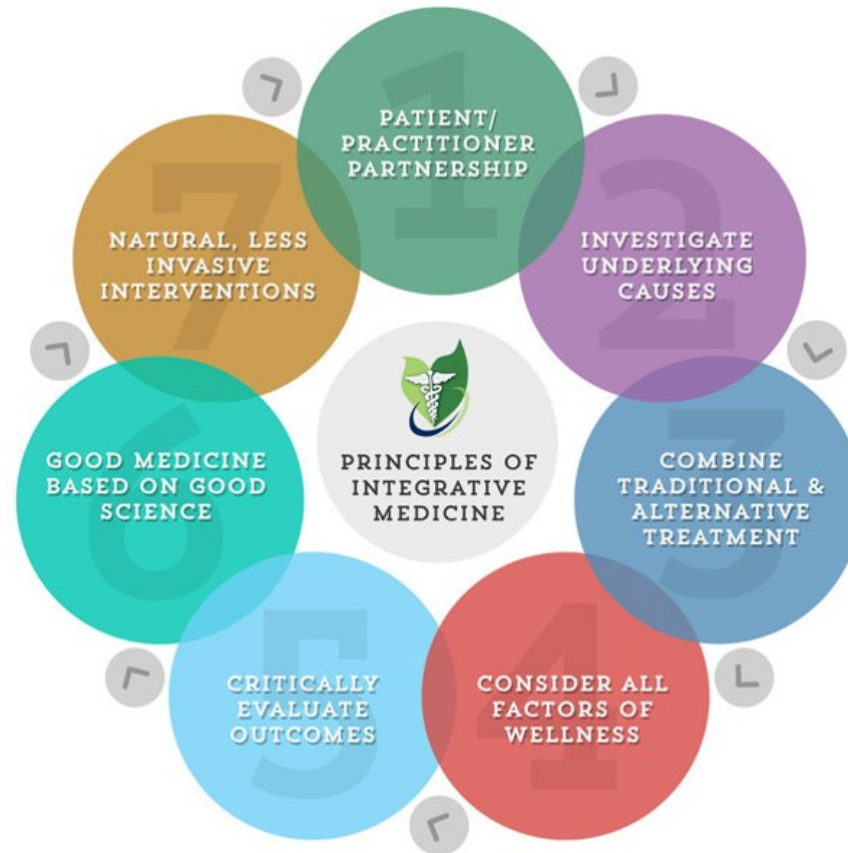
# Treating Mental Illness with Nutrition and Exercise

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CARN-AP

# Defining Integrative Mental Health

- Integrative Mental Health focuses on the whole person in order to discern all appropriate complementary and alternative therapies and promote recovery as holistically as possible from a mental health diagnosis.
- Integrative psychiatry implies treating the source of the symptoms, not solely satisfied with providing symptomatic relief.

# Integrative Medicine





# Why does Mental Illness Occur?

- Neurotransmitter/Monoamine theory

# Other Potential Causes of Depression

- Inflammation
- Hormonal - HPA axis
- Mitochondrial Dysfunction
- Genetic – MTHFR mutation
- Dysbiosis of Microbiome
- Neurogenesis/Neuroplasticity
- Micronutrient deficiency
- Hippocampus Degeneration
- Environmental toxins

# Expanded Testing Options

- Mitochondrial dysfunction
- Micronutrient deficiencies
- Antioxidant panels
- Hormonal imbalances
- Genetic testing
- Food allergy testing

# IMH Therapies Menu

- Massage therapy and Spinal Manipulation
- Acupuncture and TCM
- Micronutrient /supplement therapy
- Exercise
- Essential oils /Aromatherapy (no substantial evidence)
- Diet/Nutrition
- Light therapy
- Media fasts
- Psychotherapy
- ECT/TMS/neurofeedback



# IMH Therapies Menu

- Energy Healing
- Creative Arts including painting, drawing, music, dance, and writing/narrative medicine
- Nature therapy
- Equine / Pet therapy
- Mindfulness, Meditation & Affirmations
- Spirituality, Religion & Prayer
- Water therapy/Floating
- Life coaching/Financial planning
- Yoga, Tai Chi and other movement therapies

# Everyone's favorite thing to do!

- Exercise
- Nutrition

# Exercise

- The higher the dose, the lower the risk of relapse rates in patients with MDD, with 10 days being sufficient to begin seeing an improvement in mood.
- Exercise increases rate of neurogenesis, production of BDNF, increases serotonin by increasing tryptophan, increasing norepinephrine, decreasing cortisol, increasing endorphins, increasing dopamine. Exercise also relieves pain issues.
- It's hypothesized that exercise helps the brain deal more efficiently with stress by enhancing the body's ability to respond to stress, and coordinating the sympathetic nervous system response.

(Knubben, et al, 2007; Greenblatt & Brogan, 2016; McWilliams, 2001)

# Exercise

- A study by Dr. Andrea Dunn found that patients who did the equivalent of 35 minutes walking, six days per week, experienced a reduction in their level of depression by 47%. This study, conducted at the Cooper Research Institute in Dallas, Texas, shows that as little as three hours of regular exercise a week reduces the symptoms of mild to moderate depression as effectively as Prozac and other antidepressants.

(PsychCentral, 2018)

# Yoga and Movement Therapies

- Yoga has been shown to activate the prefrontal cortex and thalamus. Yoga practitioners downregulate their HPA axis and modulate their cortisol levels.
- Yoga and Tai Chi also have excellent indication for longer sleep duration with less arousal time.
- The mechanisms that are involved in the effects of yoga on stress response include the following: positive affect, self-compassion, inhibition of the posterior hypothalamus, and salivary cortisol

(O'Neil, 2014; Sieverdes, et al. 2014; Riley, 2015)



# What type of Exercise is best?

- ANY form of exercise where you move your body in a meaningful way is beneficial.
- Ideally, a moderate amount of Exercise – daily for 30min, or 5 days/week for 45 min - will increase your heart rate, which in turn leads to increased blood flow to the brain, increase in neurogenesis and production of BDNF.
- Too much exercise however will induce muscle damage that leads to pro-inflammatory cytokines.

# Bonus

- Try combining more than one Integrative Mental Health practice for a synergistic effect.
- i.e. Meditation before and after Yoga practice or jogging outdoors in nature instead of indoors.

# Diet/ Nutrition

- Gut-brain connection and the impact that our nutritional choices have on our mental health.
- The typical Western Diet consist of high fructose foods or beverages, transaturated fats, with large amounts of carbohydrates in the form of bread products. Sugar and gluten are both incredibly inflammatory, and alter the microbiome of the gut. Factors like ETOH, antibiotic use, NSAIDS, cytokine production, and psychological stress increase also intestinal permeability (Greenblatt and Brogan, 2016). So our dietary choices do have great impact on our mental health!

# Diet/ Nutrition

- Gluten attacks an enzyme involved in the production of GABA
- Antibodies against gluten have been found much more often in schizophrenia and autism patients than in the general population or in controls demonstrating that these populations are at higher risk for intolerance to gluten
- When treating inpatients admitted for exacerbation of schizophrenia, patients who were placed on a gluten-free diet showed a 43% faster improvement rate.

(Bressan & Kramer, 2016; Dohan et al., 1969)

# Diet/ Nutrition

- Higher dietary fiber content was associated with lower odds of depression; increased consumption of vegetables and nonjuice fruit was associated with lower odds for depression; added sugars, but not total sugars or total carbohydrates, to be strongly associated with depression incidence
- In one study that followed 70 children with autism who had not previously responded to any therapy, after 3 months on the gluten-free diet, an impressive 80% improved in symptoms

(Cade et al., 2000; Gangswisch, 2015)



# What type of diet is best?

- Nutrition is complicated, but for a simple start, try going gluten-free.
- I tend to recommend the Whole 30 regimen to my patients. This program eliminates any artificial/refined sugar, grains, dairy, alcohol and gluten for 30 days.

\*Individual allergies and other considerations may apply here.

# Remember

- Sugar is not the brain's enemy--EXCESS sugar is.
- Of course, certain adjustments to diet might need to be made for a patient with an eating disorder.

# Next Steps

- For an Integrative Mental Health consultation, call 513-536-HOPE to schedule an appointment.

UC Health. Integrative Medicine *To make an appointment, call (513) 475-9567 Contact Us*

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## Integrative Medicine

**FOOD** is medicine

**MOVE** to heal

Manage **STRESS**

[UC Health > Integrative Medicine](#)

### Choose Wellness.

UC Health Integrative Medicine services combine traditional medicine with evidence-based complementary therapies that focus on healthy lifestyle addressing stress, nutrition, movement, sleep and environment to reduce suffering and promote overall wellness.

Our philosophy is a whole health approach that empowers and equips individuals to take charge of their health and well-being, and live their life to the fullest.

**Request a Call from an Integrative Medicine Specialist**

Name \*

First Last

# Additional Sources

- <https://nccih.nih.gov/>
- <https://med.uc.edu/integrative>
- <http://uchealth.com/integrative/>
- <https://integrativemedicine.arizona.edu/about/index.html>
- [https://www.huffingtonpost.com/andrew-weil-md/integrative-mental-health\\_b\\_354332.html](https://www.huffingtonpost.com/andrew-weil-md/integrative-mental-health_b_354332.html)
- <https://www.vanderbilthealth.com/osher/10951>



# Questions?

