

# What's Your Practice? Self Care for Health Professionals

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# Self compassion

Treat your self with the same kindness that you would offer to others...

- Validate: “this is really hard right now;” “I am struggling...”
- Remember common humanity: “you are not alone”
- Acknowledge: “lots of people are feeling challenged”
- Direct supportive language to yourself: “this is hard right now; what can I do to help?”

**How do you maintain your center  
in times of challenge?**



# Relaxing Breath

1. Place tip of tongue against ridge on roof of mouth
2. Exhale completely through mouth, making a “whoosh” sound.
3. Inhale deeply through nose to count of 4
4. Hold breath for count of 7
5. Exhale through mouth to count of 8
6. Repeat 3, 4, and 5 for a total of 4 breaths

# Guided Imagery

- A directed daydream
- Immersive multi-sensory experience that creates a receptive state
- Targeted goal-directed healing experience
- Guided Imagery

Higa-McMillan, et al. (2016) Evidence Base Update: 50 Years of Research on Treatment for Child and Adolescent Anxiety. *Journal of Clinical Child & Adolescent Psychology*, 45:2, 91-113.



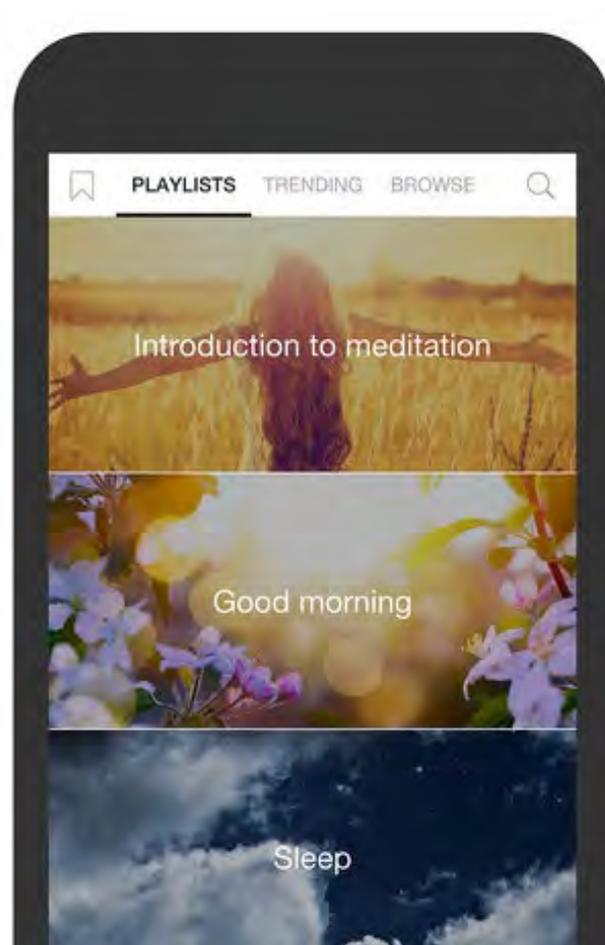
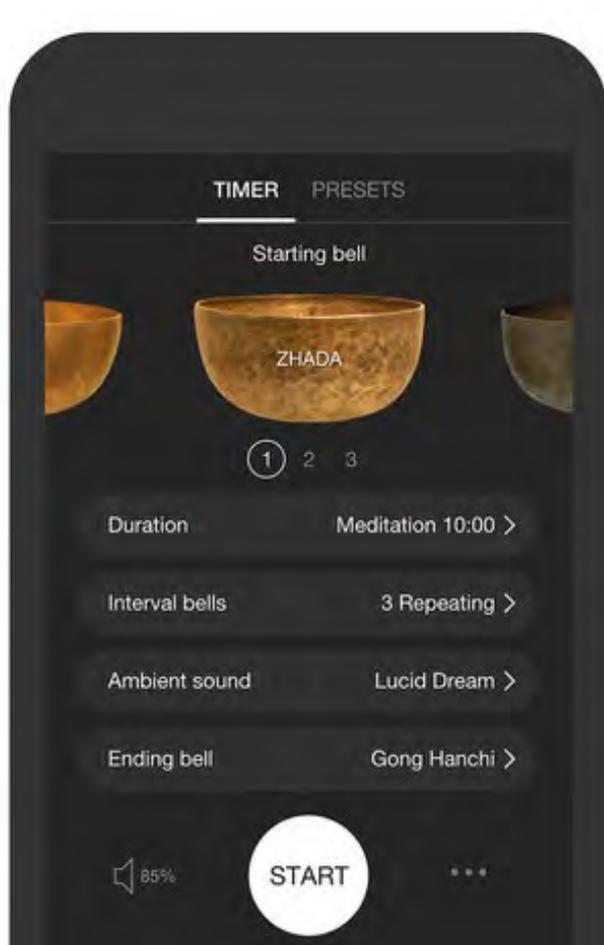


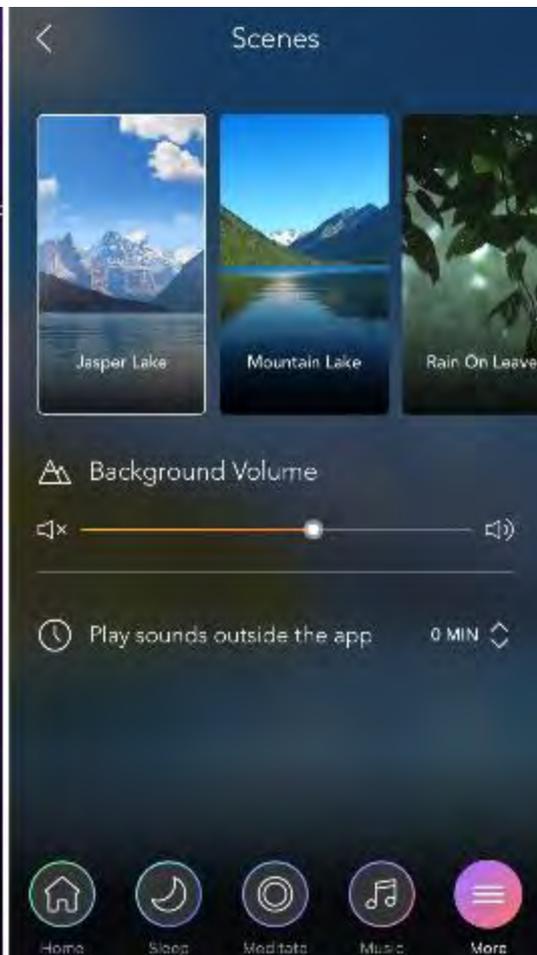
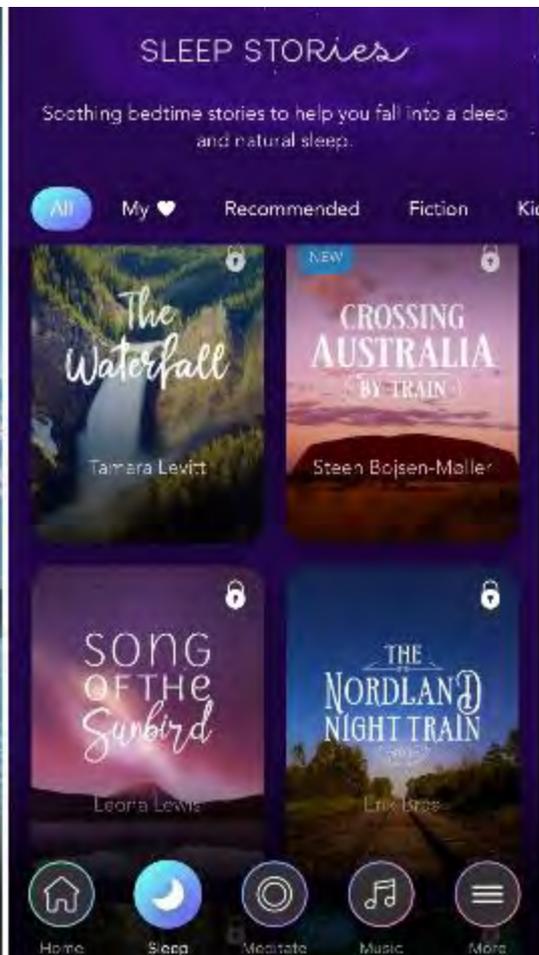
# Stress management and corona virus

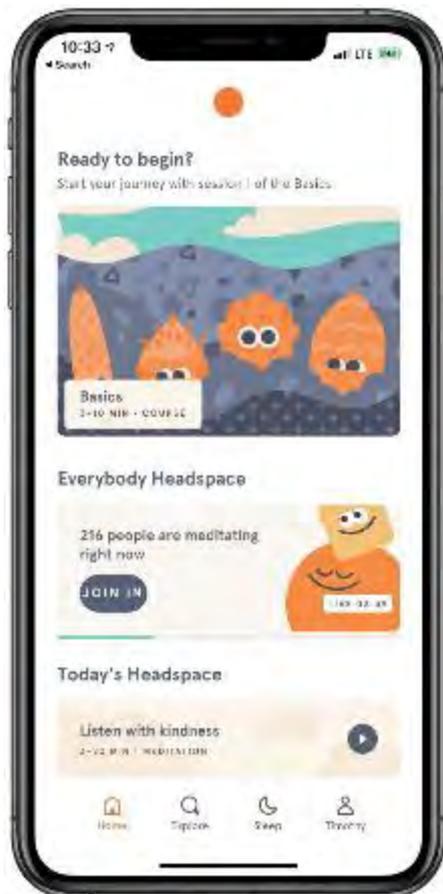
- Psychological stress disrupts immune regulation and is specifically associated with increased pro-inflammatory cytokines such as IL-65
- Acute stress in mice increases IL-1B via NLRP3 inflammasome activation
- Various mindfulness techniques such as meditation, breathing exercises, guided imagery, etc. reduce stress, reduce activated NFkB, may reduce CRP and do not appear to increase inflammatory cytokines

Iwata M, et al. Psychological Stress Activates the Inflammasome via Release of Adenosine Triphosphate and Stimulation of the Purinergic Type 2X7 Receptor. *Biol Psychiatry*. 2016;80(1):12.

Black D and Slavich GM. Mindfulness meditation and the immune system: a systematic review of randomized controlled trials. *Ann NY Acad Sci*. 2016;1373(1):13











**“It’s a special hearing aid. It filters out criticism and amplifies compliments.”**

**How important is your diet to  
your overall well being?**

**“One cannot think  
well, love well, sleep  
well,  
if one has not dined  
well.”**

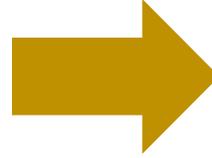
***Virginia Woolf***







**“I’m going to order a broiled skinless chicken breast,  
but I want you to bring me lasagna and  
garlic bread by mistake.”**



carbohydrat  
e rich meal  
pancreas  
releases  
insulin



amino  
acids  
leave  
blood &  
enter  
muscle  
cells



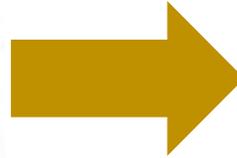
tryptophan  
remains in  
blood and  
enters the  
brain



tryptophan  
becomes  
serotonin



calm and  
uplifted  
mood



Protein  
rich  
meal



Tyrosine  
rises in  
blood  
and  
brain



Elevated  
brain  
tyrosine  
lead to  
elevations  
of  
dopamine



Dopamine is  
stored in  
nerve cells or  
converted to  
norepinephrine



Enhanced  
energy  
and  
alertness

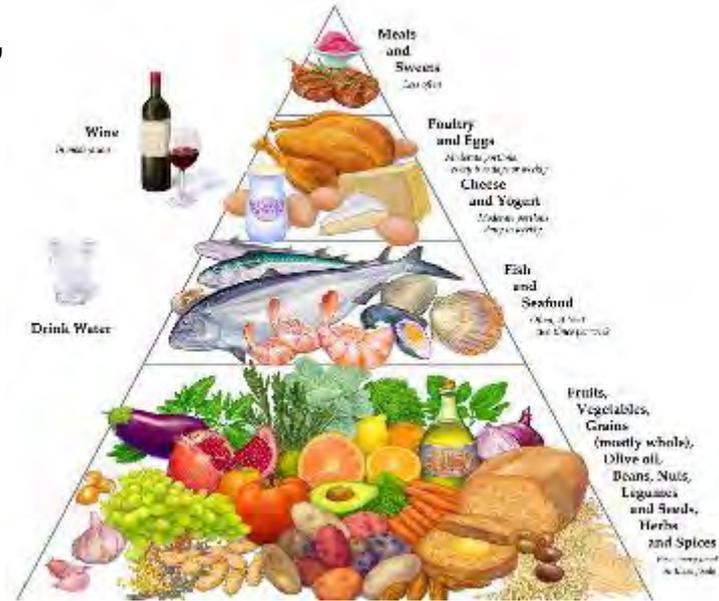
TODAY I  
WILL LIVE  
IN THE  
MOMENT



UNLESS THE MOMENT IS UNPLEASANT,  
IN WHICH CASE I WILL EAT A COOKIE

# Mediterranean Diet

- High in vegetables, legumes, fruits, (unrefined) cereals
- Moderate to high intake of fish
- Low in saturated fats
- High in mono-unsaturated especially olive oil
- Low to moderate dairy, mostly as cheese and yogurt
- Low in meat
- Modest intake of alcohol, mostly as wine



# Mediterranean Diet impact

- Reduces risk of heart disease
- Reduces risk of Alzheimer's and Parkinson's
- Reduces risk of cancer
- Reduces risk of depression
- Reduced risk of all cause mortality



# Anti-inflammatory Diet: An Enhanced Mediterranean Diet

- Increases omega 3 fatty acids
- Increases anti-oxidants
- Keeps insulin levels low and stable
- Contains protective phytochemicals



# Role of Diet in Coronavirus Pandemic

- Vegetables (5 – 7 serving) and Fruits (2-3 servings)
- Many flavonoids have been found, in vitro, to reduce NLRP3 inflammasome signaling, and consequently NFkB, TNF-a, IL-6, IL1B and IL-18 expression
  - onions and apples – dihydroquercetin and quercetin
  - tomatoes, oranges, nuts, and berries - myricetin
  - chamomile, parsley, and celery - apigenin
  - curcumin (found in turmeric root)

Lim H, et al. Flavonoids Interfere with NLRP3 Inflammasome Activation. *Toxicol Appl Pharmacol*. 2018;355:93.

Ding T, et al. Kidney Protection Effects of Dihydroquercetin on Diabetic Nephropathy Through Suppressing ROS and NLRP3 Inflammasome. *Phytomedicine*. 2018(41):45.

Choe J-Y, et al. Quercetin and Ascorbic Acid Suppress Fructose-Induced NLRP3 Inflammasome Activation by Blocking Intracellular Shuttling of TXNIP in Human Macrophage Cell Lines. *Inflammation*. 2017;40(3):980.

Chen H, et al. Myricetin Inhibits NLRP3 Inflammasome Activation via Reduction of ROS-dependent Ubiquitination of ASC and Promotion of ROS-independent NLRP3 Ubiquitination. *Toxicol Appl Pharmacol*. 2019;365:19.

Yamagata K, et al. Dietary Apigenin Reduces Induction of LOX-1 and NLRP3 Expression, Leukocyte Adhesion, and Acetylated Low-Density Lipoprotein Uptake in Human Endothelial Cells Exposed to Trimethylamine-N-Oxide. *J Cardiovasc Pharmacol*. 2019;74(6):558.

Yin H, et al. Curcumin Suppresses IL-1 $\beta$  Secretion and Prevents Inflammation through Inhibition of the NLRP3 Inflammasome. *J Immunol*. 2018;200(8):2835.

Wen CC, et al. Specific plant terpenoids and lignoids possess potent antiviral activities against severe acute respiratory syndrome coronavirus. *J Med Chem*. 2007;50(17):4087.



# THE LAST THANKSGIVING



# Consider an Elimination Diet

- Wheat
- Dairy
- Soy
- Eggs
- Corn
- Citrus



# Elimination Diet Tips

- Single food group (gluten or dairy) vs the most common food intolerances
- 3-week trial
  - Be strict during trial period
  - Observe any changes
  - Keep a symptom record
- Retest one food at a time – “rechallenge” to see if symptoms reemerge



# Microbiome support

- Fermented foods
- Yogurt
- Dark chocolate
- Prebiotics
- Increase fiber
- Avoid unnecessary antibiotics
- Avoid “diet” drinks and foods
- Avoid highly processed foods
- Garden
- Pets



Impact of the microbiome on cocoa polyphenolic compounds; *Abstract: 247<sup>th</sup> National Meeting & Exposition of the American Chemical Society*

# Exercise

Puetz TW: Physical activity and feelings of energy and fatigue. *Sports Med* 2006, 36:767-780

Lee DC. Et al. Running as a Key Lifestyle Medicine for Longevity. *Prog Cardiovasc Dis.* 2017 Mar 29.



# Shinrin-yoku (Forest Bathing)

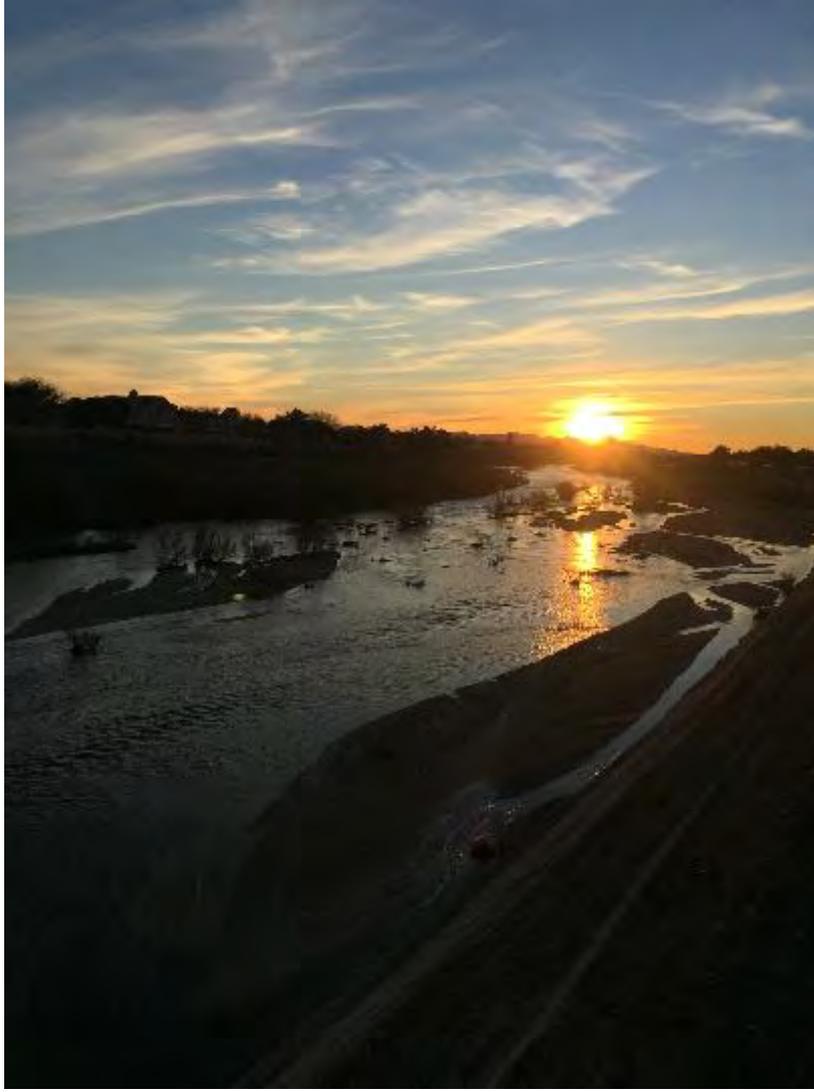




Ryan. Vitalizing effects of being outdoors and in nature. *J of Env Psych*  
June 2010

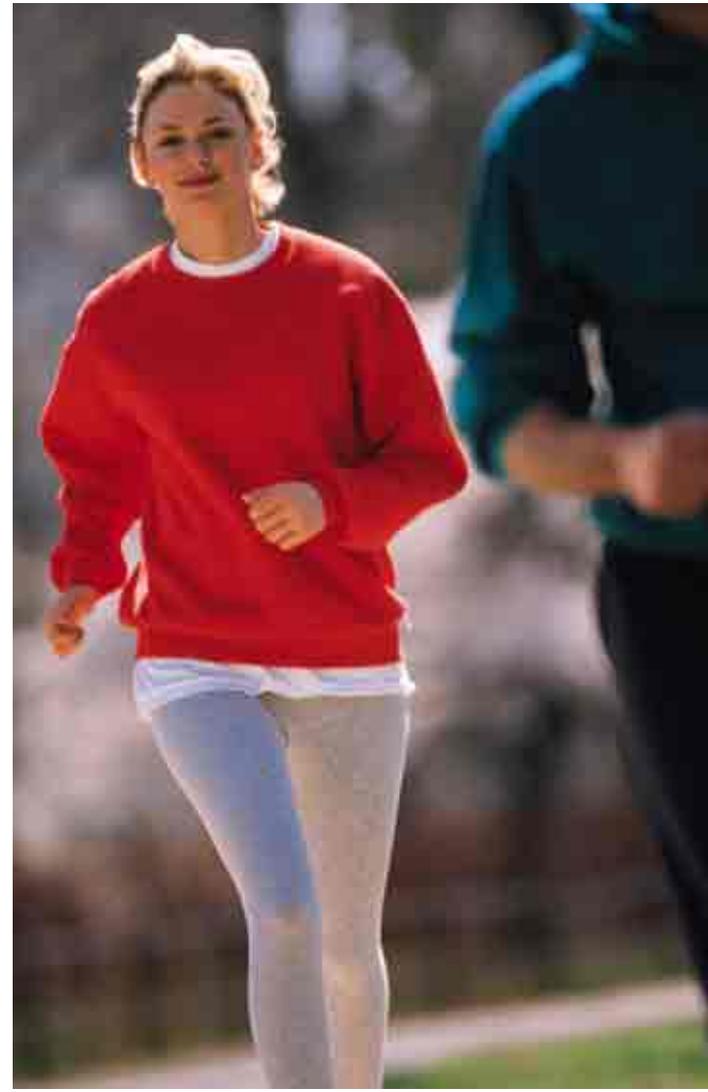






# Benefits of Exercise

- ↑ vitality
- ↑ mood
- ↑ cognitive function
- ↓ heart disease
- ↓ cancer
- ↓ diabetes
- ↓ falls
- ↓ mortality



**“Enjoy the honey heaven dew of  
slumber” Shakespeare**



**“Sleep is a criminal waste of time  
and a heritage  
from our cave days.”**



# Why Do We Sleep?

- Restorative
- Energy conservation
- Memory consolidation
- Detoxification

# Sleep and viral infections

- Shorter sleep duration increases the risk of infectious illness.
  - <5 hours of sleep (over 7 consecutive days) increased the risk of developing rhinovirus associated cold by 350% when compared to individuals who slept at least 7 hours per night
- Adequate sleep ensures secretion of melatonin which may play a role in reducing coronavirus virulence

Prather AA, et al. Behaviorally Assessed Sleep and Susceptibility to the Common Cold. *Sleep*. 2015;38(9):1353-9.

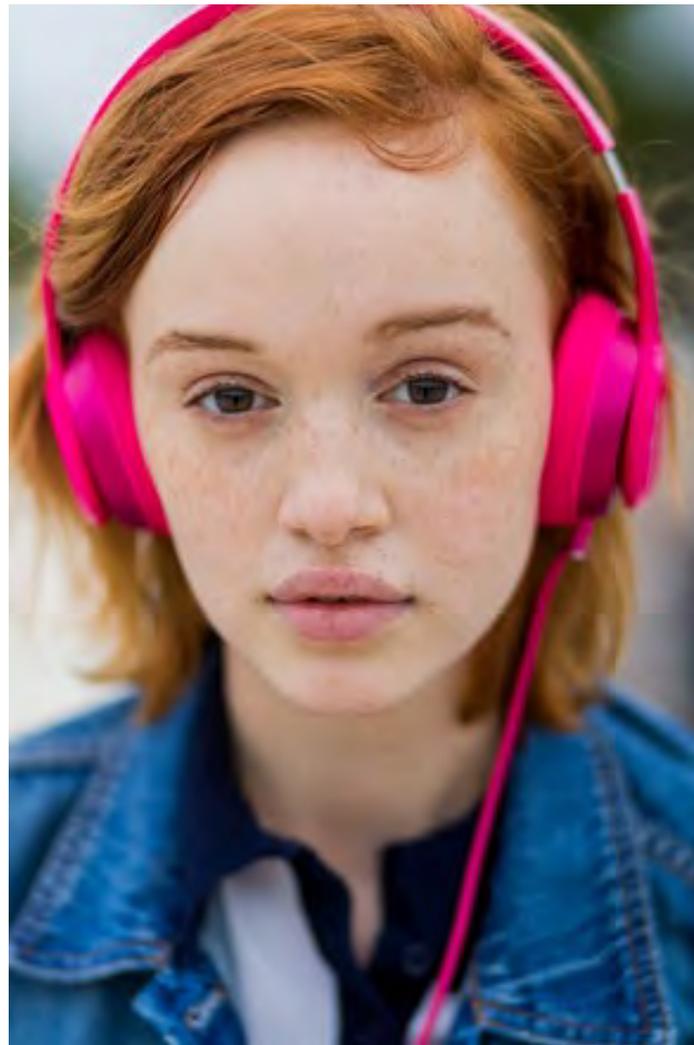
Gorbachev AV, et al. CXC chemokine ligand 9/monokine induced by IFN-gamma production by tumor cells is critical for T cell-mediated suppression of cutaneous tumors. *J Immunol*. 2007;178:2278–2286.

Romero, JM, et al. A Four-Chemokine Signature Is Associated With a T-cell-Inflamed Phenotype in Primary and Metastatic Pancreatic Cancer. *Clin Cancer Res*. 2020 Jan 21 [online ahead of print]

# Getting a Healthy Night's Rest

- Relaxation training
  - “letting go into sleep”
- Sleep hygiene
  - Limit caffeine
  - Reduce light exposure including screens
- Cognitive Behavioral Therapy for Insomnia





# Spotify: “Most Relaxing Songs Ever”

10. "[We Can Fly](#)," by Rue du Soleil (Café Del Mar)
9. "[Canzonetta Sull'aria](#)," by Mozart
8. "[Someone Like You](#)," by Adele
7. "[Pure Shores](#)," by All Saints
6. "[Please Don't Go](#)," by Barcelona
5. "[Strawberry Swing](#)," by Coldplay
4. "[Watermark](#)," by Enya
3. "[Mellomaniac \(Chill Out Mix\)](#)," by DJ Shah
2. "[Electra](#)," by Airstream
1. "[Weightless](#)," by Marconi Union







**“Each 8-ounce serving contains the minimum daily requirement of vitamins, minerals and antidepressants.”**

# Adaptogens

- Ashwaganda (*Withania somnifera*)
  - Unique among adaptogens it is a mild sedative
  - Good for anxiety
- *Rhodiola rosea*
  - Mental health and chronic fatigue
- Holy Basil –Tulsi (*Ocimum sanctum*)
  - Especially good for mental stress



# Useful supplements for coronavirus prevention

## Zinc:

- Coronavirus susceptible to the viral inhibitory actions of zinc
  - may prevent coronavirus entry into cells and appears to reduce coronavirus virulence
- Typical daily dosing of zinc is 15mg – 30mg daily
  - lozenges may provide direct protective effects in the upper respiratory tract

Phillips JM, et al. Neurovirulent Murine Coronavirus JHM.SD Uses Cellular Zinc Metalloproteases for Virus Entry and Cell-Cell Fusion. *J Virol.* 2017;91(8).

9 Han Y-S, et al. Papain-like Protease 2 (PLP2) From Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV): Expression, Purification, Characterization, and Inhibition. *Biochemistry.* 2005;44(30):10349.

# Supplements for coronavirus prevention continued:

## Vitamin C:

- Ascorbic acid inhibits NLRP3 inflammasome activation
- Clinical trials have found that vitamin C shortens the frequency, duration and severity of the common cold and the incidence of pneumonia
- Typical daily dosing of vitamin C ranges from 500mg to 3000mg daily with even higher doses utilized during times of acute infection

Choe J-Y, et al. Quercetin and Ascorbic Acid Suppress Fructose-Induced NLRP3 Inflammasome Activation by Blocking Intracellular Shuttling of TXNIP in Human Macrophage Cell Lines. *Inflammation*. 2017;40(3):980.

Hemila, H. Vitamin C Supplementation and Respiratory Infections: A Systematic Review. *Mil Med*. 2004;169(11):90.

# Supplements for coronavirus prevention continued:

## Melatonin:

- Inhibits NFκB activation and NLRP3 inflammasome activation
  - The age-related decline in melatonin production is one proposed mechanism why children do not appear to have severe symptoms and older adults do
- Reduces oxidative lung injury and inflammatory cell recruitment during viral infections
- Typical dose varies widely: 0.3 - 20mg (20 mg in oncology)

Hardeland, R. Melatonin and inflammation – Story of a Double-Edged Blade. *J Pineal Res.* 2018;65(4):e12525.

23 Silvestri M and Rossi GA. Melatonin: its possible role in the management of viral infections – a brief review. *Ital J Pediatr.* 2013;39:61.

# Supplements for coronavirus prevention continued:

## Sambucus nigra (Elderberry):

- Preclinical evidence: elderberry inhibits replication and viral attachment of human coronavirus
  - A systematic review of elderberry concluded that there is level B evidence to support the use of elderberry for influenza
- Elderberry most effective in the prevention or early stage of corona virus infections
- Elderberry significantly increases inflammatory cytokines, including IL-B126 so should be discontinued with symptoms of infection (or positive test)
- Typical dosing of 2:1 elderberry extract is 10mL -60mL daily for adults and 5mL-30mL daily for children.

Weng J-R, et al. Antiviral Activity of Sambucus Formosana Nakai Ethanol Extract and Related Phenolic Acid Constituents Against Human Coronavirus NL63. *Virus Res.* 2019;273:197767

Chen C, et al. Sambucus Nigra Extracts Inhibit Infectious Bronchitis Virus at an Early Point During Replication. *BMC Vet Res.* 2014;10:24.

Barak V, et al. The Effect of Sambucol, a Black Elderberry-Based, Natural Product, on the Production of Human Cytokines: I. Inflammatory Cytokines. *Eur Cytokine Netw.* 2001;12(2):290.

Ulbricht C, et al. An Evidence-Based Systematic Review of Elderberry and Elderflower (*Sambucus nigra*) by the Natural Standard Research Collaboration. *J Dietary*

# Supplements for coronavirus prevention continued:

## Vitamin D:

- Vitamin D has been found to decrease NLRP3 inflammasome activation and vitamin D receptor activation reduces IL-1 $\beta$  secretion
- However, 1,25(OH)<sub>2</sub>vitamin D has also been found to increase IL-1 $\beta$  levels and should, therefore, be used with caution and perhaps discontinued with symptoms of infection

Rao Z, et al. Vitamin D Receptor Inhibits NLRP3 Activation by Impeding Its BRCC3-Mediated Deubiquitination. *Front Immunol.* 2019;10:2783.

Verwur M, et al. Vitamin D Induces interleukin-1 $\beta$  Expression: Paracrine Macrophage Epithelial Signaling Controls M. Tuberculosis Infection. *PLoS Pathog.* 2013;9(6):e1003407.

Tulk SE, et al. Vitamin D<sub>3</sub> Metabolites Enhance the NLRP3-dependent Secretion of IL-1 $\beta$  From Human THP-1 Monocytic Cells. *J Cell Biochem.* 2015;116(5):711.





FAITH

FAITH

BELIEVE

WISDOM

LOVE

TRUST

# **Metta meditation**

May I feel safe

May I feel happy

May I feel healthy

May I take care of myself easily

May you feel safe...

May we feel safe ...

**“If you want to get there fast – go  
alone.**

**If you want to go far, go together.”**

**African Proverb**

# Assisting Others



# I AM GRATEFUL FOR

RELATIONSHIPS  
CONNECTIONS, HEALERS  
JOE, LOVE, PATIENCE, TOLERANCE

ART, MUSIC  
WISDOM, LIFE EXPERIENCE, COURAGE

PASSION  
TALENTS, ABILITIES, FOCUS, DRIVE, AMBITION

CREATIVITY  
MY VISION, COMMUNICATION, LANGUAGES, SYMBOLS

MOTHER EARTH  
BIRTHING, SOIL, WATER, STRENGTH, RENEWAL

CLEAN AIR  
WIND, RAIN, MEDITATION, YOGA

FAMILY, FRIENDS  
HUGS, UNCONDITIONAL LOVE

HEALTH, SUN  
BICYCLES, WALKS, HIKING, SWIMMING

KIRA, SISTERS  
A ROOF OVER OUR HEAD, CLOTHING, BED

AWESOME PARENTS  
VALDES, MORALS, ACCEPTANCE, GIVING, SUPPORT

WORK, REST, PLAY  
KNOWLEDGE, HUMOR, TECHNOLOGY, FUN, NAPS, QUIET

FOOD MEDICINE  
SEEDS, FARMERS, HEALING, ANIMALS, FARMS

CLEAN WATER  
TRAINING, ENDLESS WATER TO DRINK

TEACHERS  
GREAT SPIRIT / GOD, CREATION, MYSTERY

SCHOOLS

MEMORIES  
FISH, WHALES, ANCIENT ONES

THIS MOMENT  
ANCESTORS, ELDERS, STORIES

SUNRISE, SUNSET  
POSITIVE THINKING, LAUGHTER

BUTTERFLIES, BIRDS  
RIVERS, MOUNTAINS, LAKES, OCEANS

HEALING  
FORESTS, FIELDS, STONES, DESERT

HONEY, HERBS  
PLANTS, VEGETABLES, FRUIT

BEES, FLOWERS  
KINDNESS, CHARITY, GENEROSITY

KINDRED SPIRITS  
TREES, WOOD, FIRE, MAGIC

MY MIND, MY BODY  
SONGS, MY VOICE, MY DAUGHTER'S SPIRIT

MY SOUL  
ENIGMA, TRANCE, DREAMS

COMMUNITY  
MY CHILDHOOD, MY GYPSY SPIRIT, FAERIES

“In a time of drastic change one can be too preoccupied with what is ending or too obsessed with what seems to be beginning. In either case one loses touch with the present and with its obscure but dynamic possibilities. What really matters is openness, readiness, attention, courage to face risk. You do not need to know precisely what is happening or exactly where it is all going. What you need is to recognize the possibilities and challenges offered by the present moment, and to embrace them with courage, faith and hope.”

Thomas Merton

# Three questions:

1. What surprised you today?
2. What touched you today?
3. What inspired you today?





Let the beauty we love  
be what we do.

There are hundreds of  
ways to kneel and kiss  
the ground.

*Rumi*



“You should sit in meditation  
for 20 minutes every day –  
unless you are too busy;  
then you should sit  
for an hour.”

Zen proverb

What Practice Might  
**You**  
be Willing  
to Commit to?