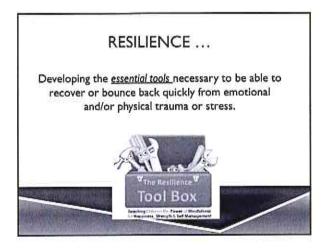
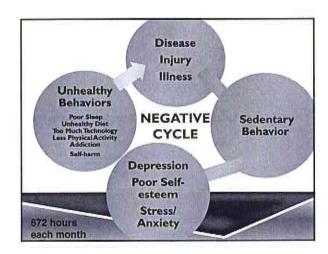


# A Healthy Lifestyle Positively Impacts For General Health and Well being – Body and Mind Disease Prevention and Reversal of Disease States Depression, Anxlety, Self-esteem, Self-harming and Addictive Behaviors Sleep Cognition: attention, memory, language skills, and executive functioning Academic Performance Vocational Performance Physical Performance and Energy Recovery and Prevention of Injury Social Connectivity Ability to be Successful and Productive Members of Society





## Addressing Lifestyle as an Integral Part of Patient Care

- ▶ Is a potential different way of thinking about patient care
- Is based on Neuroscience and Physiological functioning
- ► Is Realistic and highly Evidence-Based!
- Is Not a simple easy answer for complex problems
- ► Will take time, energy, and additional resources

Research on both children and adults suggests that integrating healthy lifestyle and mindfulness approaches is

State of the Art Medicine for the treatment and prevention of disease

## Adolescent Brain Cognitive Development (ABCD) Study



- In September 2015, NIH launched the ABCD Study.
- ABCD is the largest long-term study of cognitive and brain development in children in the U.S. to date.
- ABCD is recruiting >11,000 healthy children ages 9-10 and following them over 10 years into early adulthood.
- ABCD Investigators will measure brain maturation in the context of social, emotional, and cognitive development at a level of precision that has only recently become possible. Investigators will look at multiple health outcomes including weight, growth, sleep quality, injury, mental health and substance use, and other life experiences such as academic success, and physical activity.

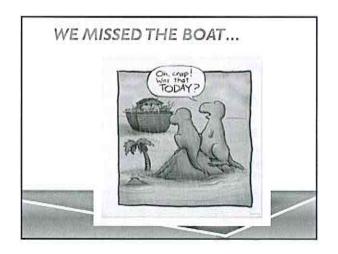


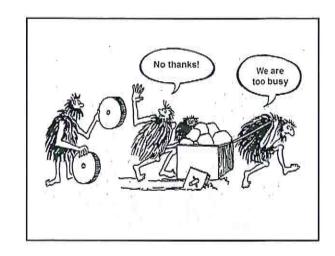


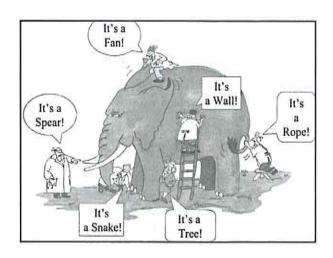
## Association between 24 hour movement behaviors and global cognition in US children

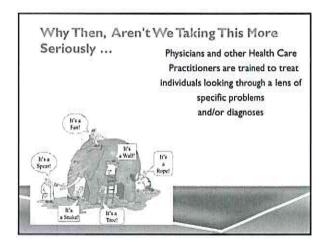
(4,524 children 8-1 lya from Sept. 2016-2017)

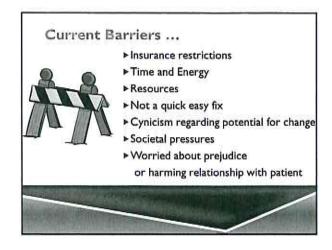
- 24 hour Movement Guidelines:
  - . 60 minutes moderate to vigorous physical activity/day
  - < 2 hours of recreational screen time/day</li>
  - 9-11 hours of uninterrupted sleep
- · Primary outcome of interest from NIH Toolbox
  - 7 validated psychometric tasks spanning language abilitios inpisodic memory, attention, working memory and processing speed
  - · Greatest benefits if meet all 3 recommendations
  - Next greatest benefits from recommendations of screen time and sleep
  - · Also benefits from following screen time recommendations alone











However... as a health care professional, your encouragement and guidance may be the greatest influence on your patient's decision to lead a healthier lifestyle!

## What makes our practice unique?

- Lifestyle is addressed as a Vital Sign a key part of each evaluations and treatment intervention
- Comprehensive Wellness Program (individual and groupbased) within the office
- Interdisciplinary Team Approach to patient care
- Provide care for families without means NPO has partnered with us to help provide Healthy Living Classes to Teens without means



## Optimize Care

And help our patients reach their highest potential

## ► Augmented Recovery

## ► Empower

kids, teens and young-adults with the essential tools they need for sustainable mental health benefits.

## Wellness Services for Children and Adolescents

Health and Wellness Evaluations

Fitness Evaluation – Fitness Level and Risk for Disease Body Composition (BM, procent body lat, while discumberance) Fitness Testing (VOZMax, endurance, strength, feetbilty, agility, balance, coordination)

Lifestyle Evaluation
Stocp, screen time, amount of physical activity, lessure and recreational interests, dailylongoing stressors.

Nutrition Evaluation
Eating habits - tast tood, junk lood, water, sadas, juices, whole foods fruits, veggles, grans, dany and protein consumption

Healthy Lifestyle and Mindfulness Groups

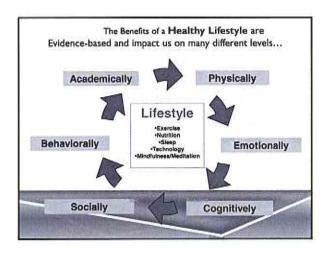
Individualized Wellness Programming, Education and Training Wegit Management, Nutrion Education, Endurance Training, Physical Activity Logs, Strength Training, Streething, Marghithess and Meditation.

## Groups include:

- Stressed Teen Class MBSR-T Mindfulness Based Stress Reduction for Teens
- Mindful Movement (Yoga) and Meditation for Teens
- Healthy Living and Mindfulness for Pre-Teens (with parent)
- Mindful Parenting
- MBSR-T "Plus"
- Healthy lifestyle and mindfulness strategies for teens who are struggling with Obusity
- MBSR Adults

\*Partnering with NPO to provide free classes to the community

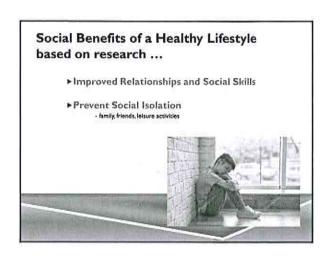
Why is this approach Cutting Edge versus Standard of Care?

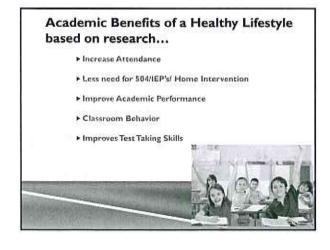


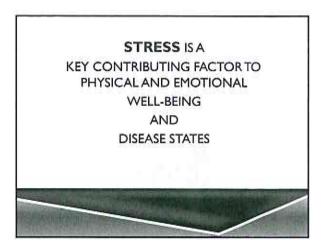


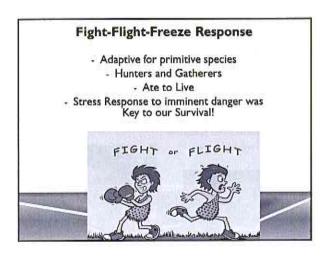


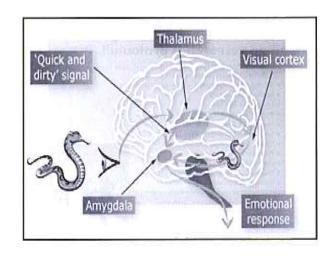


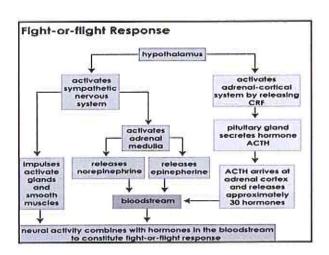




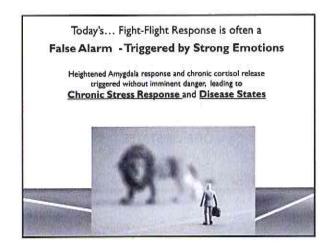


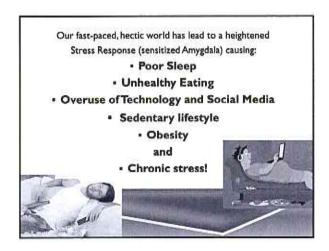


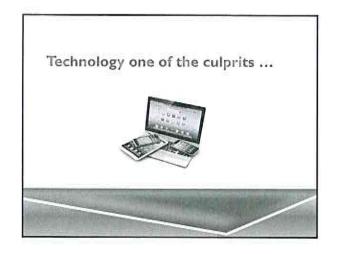




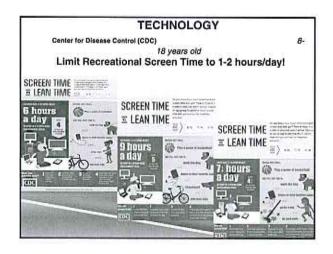
PHYSIOLOGICAL CHANGE	REASON				
Increased heart rate	To increase blood flow to organs and increase the movement of adrenaline around the body.				
Increased breathing rate	To increase oxygen intake.				
Pupil dilation	To increase light entry into the eye and enhance vision (especially in the dark).				
Sweat production	To regulate temperature.				
Reduction of non-essential functions (e.g. digestive system, urination, salivation)	To increase energy for other essential functions.				

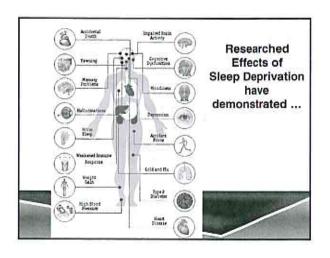


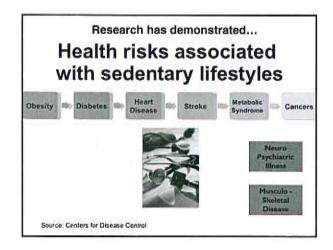


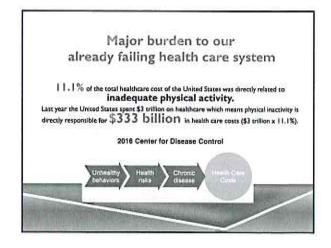


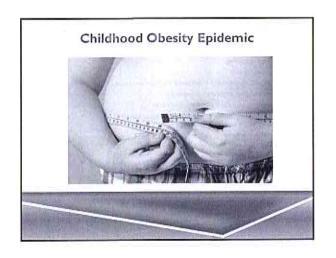


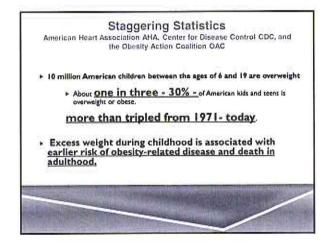


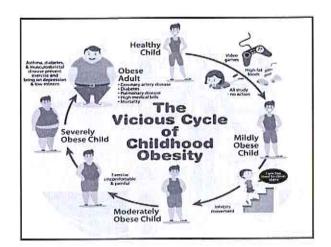


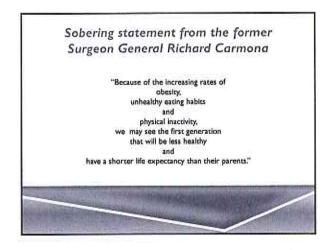


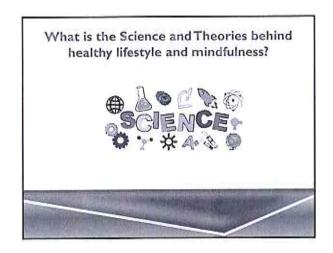


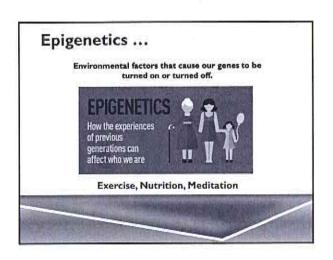


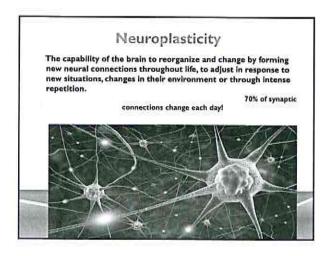


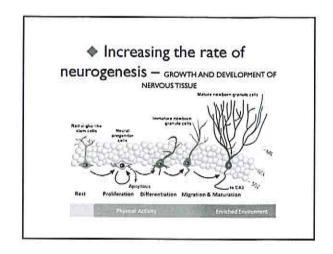


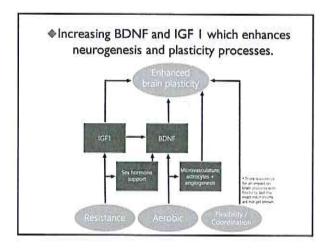


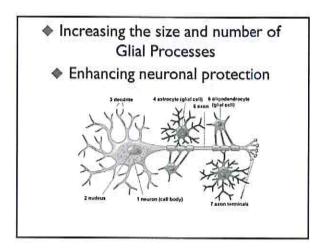


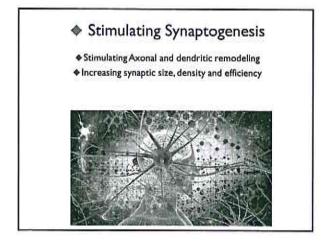


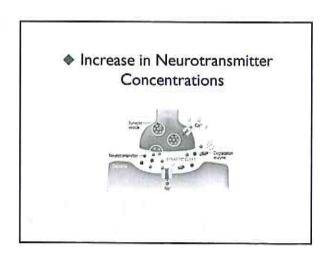






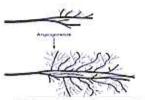






- Stimulating Angiogenesis
  - Increasing capillary density
- Increasing cerebral blood flow (CBF) to the brain

Angiogenesis



 Reduction in inflammatory processes (Controls low-grade systemic inflammation)

Immuno-modulatory functions

Increased ability to modify or regulate one or more immune functions

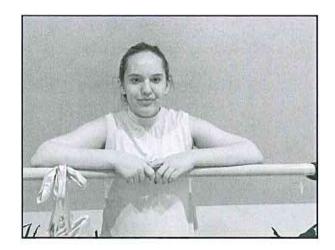
Increase in Brain Growth with Aerobic Exercise Hippocampus - stress cognition and navigation Gray Matter Density in Frontal, Temporal, and Cingulate White Matter Tracks - Functional Connectivity \* positive correlations between functional connectivity and cognitive measures of exacutive function and spatial memory.

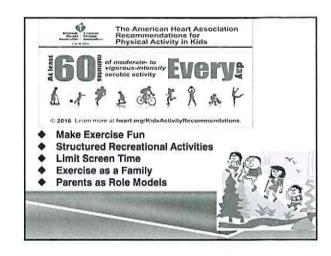
Increases Brain Growth with Mindfulness Areas of the brain responsible for empathy, compassion, mood regulation, ability to maintain social connection (Mirror Neuron Functioning)

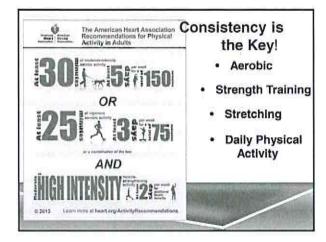
- Doraal-Mediat Pre-Frontal Cortex feeling empathy and maintaining social connections\
- Insula monitoring bodily sersations and heavily involved in experiencing feeling/empathy
- Parietal Lobes integration of sensory input, mirror neurons connected through the Insula.
- · Posterior Cinquiate mind wandering and self-relevance
- ► Left Hippocampus learning, cognition, memory, emotional regulation
- Temporal-Parietal Junction perspective taking, empathy and compassion
- - \* Decreased Size and Down Regulation of Amygdala

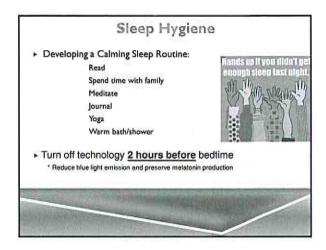
Successful Integration of Healthy Lifestyle Interventions into Patient Care Includes addressing...

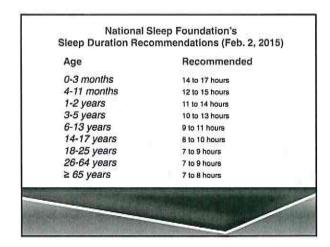
- ► Regular Exercise
  - ► Aerobic Exercise
  - ► Strength Training
  - ► Stretching Exercises Daily Physical Activity
- ► Proper Sleep Hygiene
- ▶ Healthy Nutrition
- ▶ Weight Management
- ► Thoughtful Use of Technology
- ► Mindfulness and Meditation

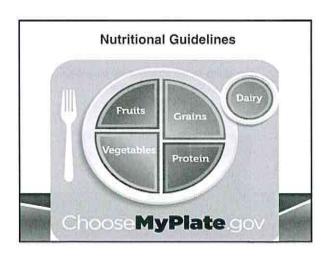


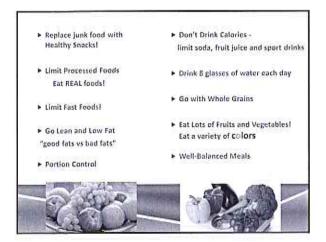


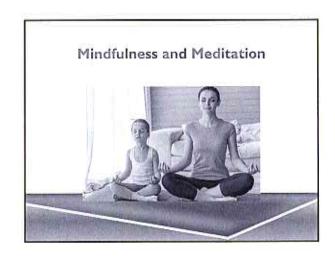












## RESEARCH - MINDFULNESS

Center for Mindfulness in Medicine, Health Care and Society

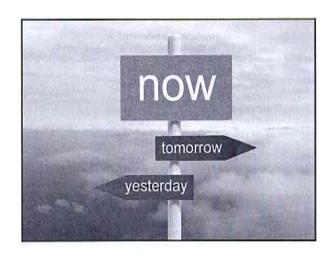
University of Massachusetts Medical School - Jon Kabat Zinn

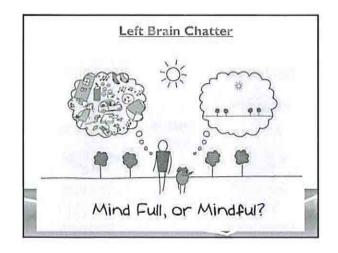
- Mindfulness Center
   Brown University School of Public Health
- Center for Healthy Minds
   University of Wisconsin Richard Davison
- UCLA Mindful Awareness Research Center Daniel Siegel, MD

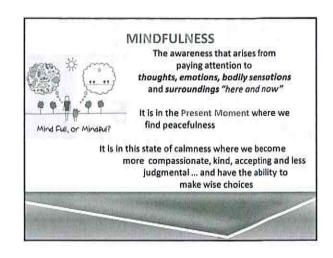
Over 1000 studies!

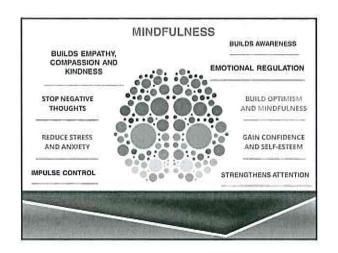
## Mindfulness Based Stress Reduction (MBSR) Jon Kabat Zinn, PHD Research between 1979 and 2002 focused on mind/body interactions for healing Westernized practice of yoga and meditation for stress management and disease prevention Evidence-based, well researched approach 8 week course called MBSR - Mindfulness Based Stress Reduction

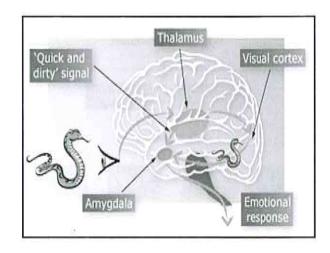
## MINDFULNESS Our ability to pay attention, on purpose, to the Present Moment without judgment

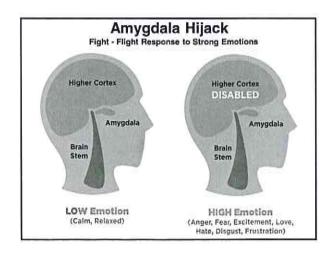


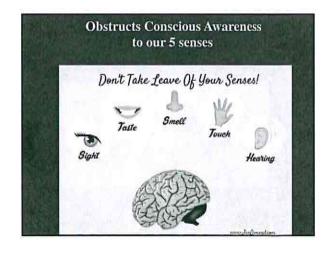


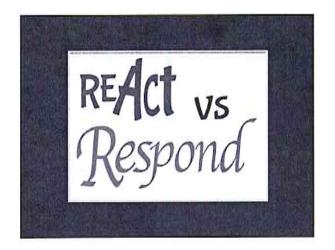


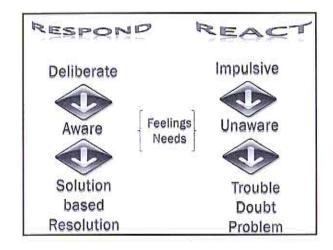


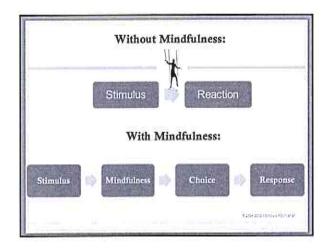


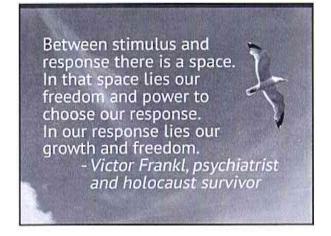


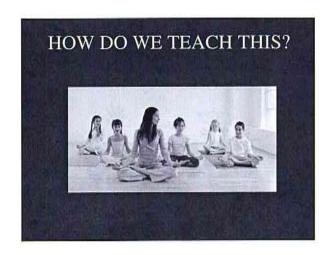


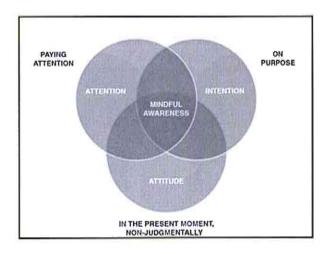


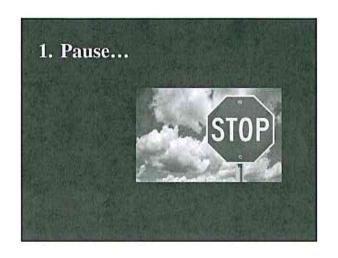


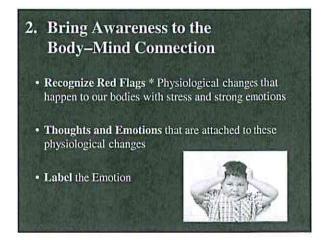


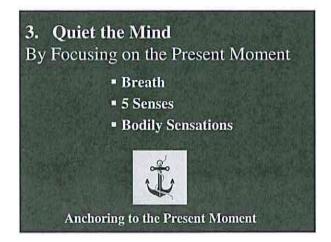


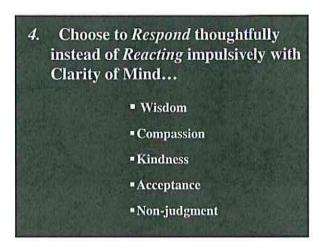






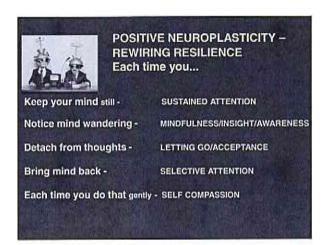








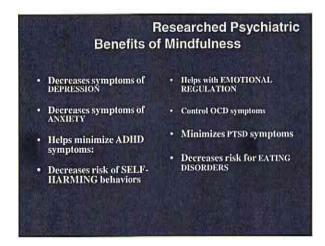


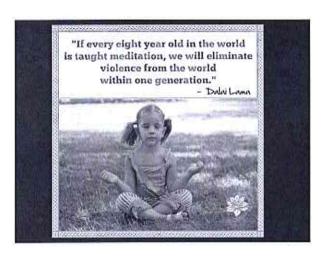


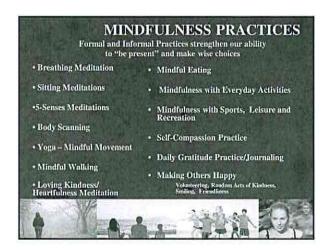
## Mindfulness Strengthens these Qualities... · Self-compassion · Awareness · Self-gratitude Acceptance · Self-kindness Openness Peacefulness Empathy Calmness Gentleness Joy/Happiness • Patience · Gratitude/Appreciation · Letting Go Compassion · Being vs Doing Kindness · Beginners Mind · Understanding Forgiveness Impermanence Non-judging

## Researched Health Benefits of Mindfulness Immune System (sick less, psoriasis, influenza) Blood Pressure Insomnia Asthma Control Stress Level (as measured by cortisol) Compliance with Medication, Diet and Nutrition Reduced Risk for Addictions









## Simple Mindful Practices to Teach or Prescribe to your Patients

- · Awareness of Breath Meditation
- · 10-Breath Meditation
- . Elevator or 4-Square Breathing
- · Slow Race Breathing
- 5 Senses Meditation
- · Mindful Eating
- · Hot Chocolate Breathing
- · Mindful Walking
- · Mindfulness with Every Day Activities

## **Mindfulness Resources**

- Moment Screen Tracker
- Apple IPhone setting to monitor screen time
- Calm
- · Head Space
- UCLA Mindful Awareness Research Center Simple Guided Meditations
- · Insight Timer

## Mindfulness Based Stress Reduction for Teens (MBSR-T) - Stressed Teens



- Gina Beigal, customized Jon Kabat Zinn's MBSR 8-week curriculum for Teens
- Evidence-based, well researched
   Positive coping strategies to handle stress and strong emotions using both healthy lifestyle and mindfulness practices

## Stressed Teen Class

- ► Write "3 things They are Grateful For"
- ► Write "Kind Words" to themselves
- ► Write their "Intention for the Day"
- ► Do one Random Act of Kindness
- ► Smile and Make Eye Contact with people they cross paths with
- ▶ Be Physically Active every day for 60 minutes
- ► Log details of their Physical Activity, Aerobic Exercise, Strength Training and Stretching/Yoga

## Week I



- ► Creating Personal Wellness Goals/Intentions
- ► Identifying Personal Stressors
- ► Effects of Stress/Strong Emotions on the BODY and MIND

  \*Body Mind Connection
- ► Healthy Lifestyle's positively impact on the BODY and MIND
- ► Introduction to Mindfulness
- ► How Mindfulness can help...
- ► Mindfulness Practice:

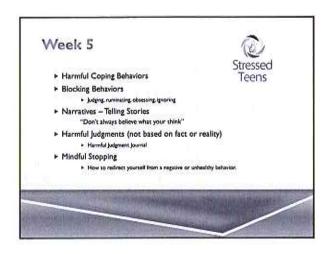
Mindfulness and the 5 Senses

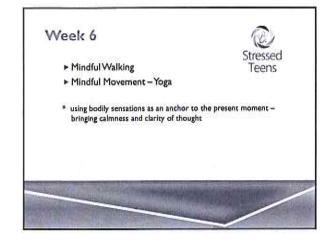
Dropping into Mindfulness Practice (checking in with body, breath and mind)

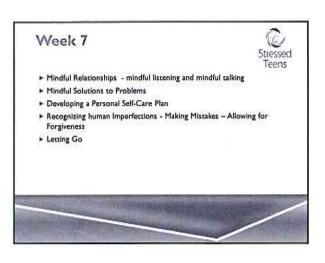




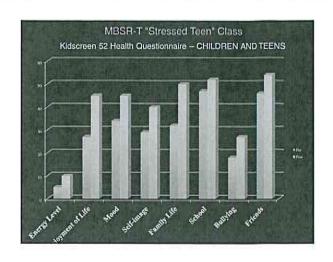


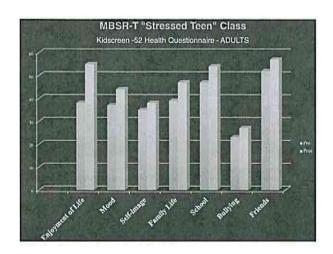












## What Teens Had to Say... I notice now when I am really struggling emotionally or really stressed out and I now can make the decision to use mindfulness strategies that I learned in class to calm myself and put things in perspectivel. I used to have Panic Attacks every day at school and when this happened. I would call home to be picked up. Now! I am aware of when one is coming on — I catch it early and can step it myself by using mendfulnoss! I haven't left school in over a month now! I am so much less moody and feel happier at school, at home, with my friends — and with life! I learned how to actually notice my emotions - and then what to do to make myself feel better! It have Autistic spectrum Disorder and this class has really helped me appreciate myself and my Autism. Journaling and writing 3 things I am grateful for each morning reminds me how I can choose to be mindfull AND... It runninds me to BE mindfull Mindfulness has helped me become aware of how other people cope — and most importantly to be compassionate and kind instead of judgmental!

## What Parents Had to Say ....

I have watched my son apply what he learned from this class to a number of real life situations! Recently, he was sufficing terribly and was axtremely angry due to a family crisis! I redirected him to try the mindful practices he learned in class. He took his notebook to his room and 30 minutes later came out calmer, more released and more in control of his emotions! Thank you!

My daughter has applied mindfulness to help her manage her severe OCD symptoms, academic stress and sleep issues. She uses many strategies but really likes mindful walking, yoga and the body scan!

My son found it powerful to be amongst other teens with similar issues. He is less depressed and is more engaged with family and friends... He meditates every night before bed! Wow!

My daughter is more even and balanced. She is eating better, exercising and is much more thoughtful in regards to others. This class has been the highlight of my daughter's week!

My daughter has Autistic Spectrum Disorder. She is able to cope with unexpected changes with much more ease since learning principals an attralegal of Mindhilmeas. She now attlas to me about how ahe feets and is able to work through a problem both together and on her own. Amazing!

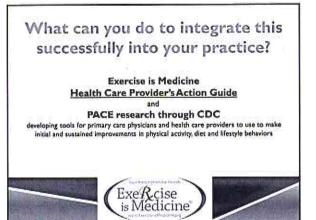
> My daughter is much more open and willing to listen to advice from others about how to manage her time. She is now managing her time much better, is more even tempered and is so much less stressed!

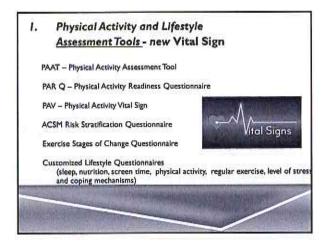


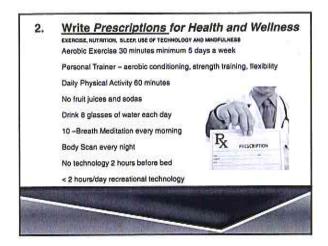


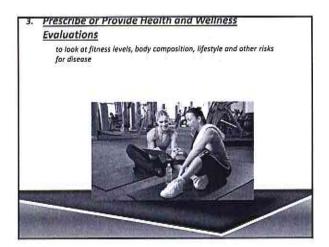
## So... what is our responsibility as health care providers?

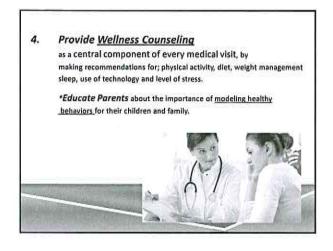
- ♦ To provide the highest quality of care
- Respond and Change how we provide care:
   taking into consideration the health risks and negative physical,
   psychological and social implications of technology addiction,
   sedentary lifestyle, and higher levels of stress in today's
   day and age.
- ♦ Provide Evidence-based Lifestyle Interventions

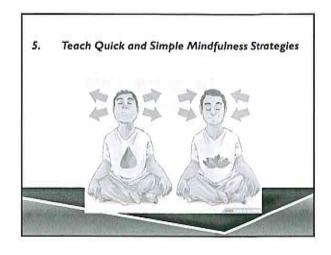




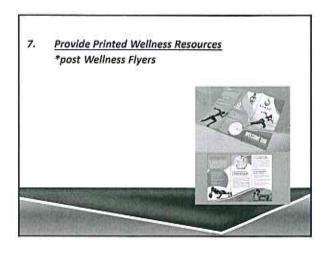


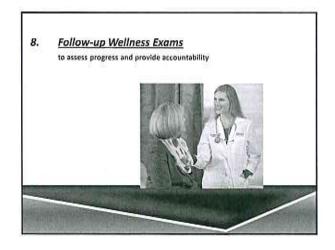


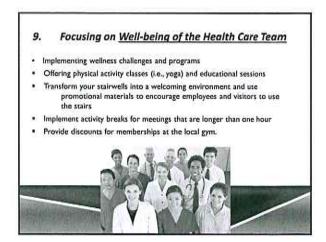


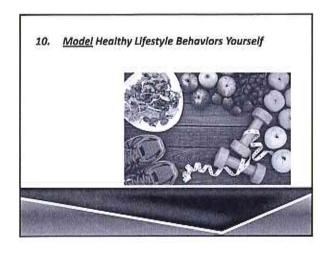












Integrating Mindfulness and Healthy Lifestyle Interventions into patient care is

## The Missing Link

to State of for the prevent

to State of the Art medicine for the treatment and prevention of disease

It is worth our time and energy and is our responsibility as health care providers!

Helping patients <u>achieve their goals!</u> Helping <u>to optimize treatment</u> interventions! Helping patients <u>reach their highest potential!</u> Helping patients <u>sustain their benefits!</u>

## Healthy Living Groups Offered at NMPS, PC:

- Stressed Teen Class MBSR-T Mindfulness Based Stress Reduction for Teens
- Mindful Movement (Yoga) and Meditation for Teens Must have successfully completed Stressed Teens
- Healthy Living and Mindfulness for Pre-Teens (with parent)
- Mindful Parenting
- MBSR-T "Plus"
   Healthy Mestyle and mindfulness strategies for leens who are struggling with Obesity
- MBSR Adulta

To Register a Tean for any of these classes contact NMPS, PC at 231-935-9355 or Weekly Weekstein directly at 231-942-9634. We will need Passert Name, parent Name, contact Information, DOB and whether or not they are recommended for Scholarship.

Class Descriptions and Schedules located on NMPS, PC website www.nmpspc.com

## References/Research Articles Healthy Lifestyle and Mindfulness Practices

- Testing the Feasibility of a Mindfulness-Based Intervention With Underserved Adolescents at Risk for Depression, Young CC; Minami H; Aguilar R; Brown RA. Holistic Nursing Practice, 32(6):316-323, 2018 Nov/Dec.
- Mindfulness-based stress reduction in adolescents with mental disorders: A randomized clinical trial. Disz-Gonzaler MC: Perez Duenas C: Sanchez-Raya A; Moriana Elivira JA: Sanchez-Vazquez V Psicothema. 30(2):165-170. 2018 May. (Comparative Study. Journal Article. Randomized Controlled Trial)
- 3. A mindfulness-based intervention to increase resilience to stress in university students (the Mindful Student Study): a pragmatic randomised controlled trial. Galance j: Dufour G:Valnre H:Wagner AP: Stoch J: Benton At Lathla N; Howarth The lancet. Public Health. 3(2):672-681, 2018 02. [Journal Article. Randomized Controlled Trial. Research Support, Non-U.S. Gov't]
- Mindfulness-Based Stress Reduction and Group Support Decrease Stress in Adolescents with Cardiac Diagnosesi A Randomized Two-Group Study. Freedenberg VA: Hinds PS; Friedmann E. Pediatric Cardiology, 38(7):1415-1425, 2017 Oct. [Journal Article. Randomized Controlled Trial]

- Effects of Mindfulness-Based Interventions in High School and College Athletes for Reducing Stress and Injury, and Improving of Life, Petterson H; Olson BL Journal of Sport Rehabilization, 26(6):578-587, 2017 Nov.
- A Mindfulness-Based Intervention for Adolescents and Young Adults
   After Cancer Treatment: Effects on Quality of Life, Emotional Distress,
   and Cognitive Vulnerability, Van der Gucht K; Takano K; Labarque V;
   Vandensbeele K; Nolf IN; Kuylen S; Cosyns V; Van Broeck N; Kupens P; Raes F,
   journal of Adolescent & Young Adult Oncology, 6(2):307-317, 2017 Jun.
- 7. Mindfulness-Based Stress Reduction for Adolescents with Functional Somatic Syndromes: A Pilot Cohort Study All A:Weiss TR; Dutton A; McKee D; Jones KD; Kashikar-Zuck S; Siherman WK; Shapiro ED; Journal O Peldarics. 183:184-190, 2 [Comparative Study: Journal Article, Research Support, NLH., Extramuraí]
- A Pilot Study of a Mindfulness Intervention for Adolescents and the Potential Role of Self-Compassion in Reducing Stress. Bluth K: Roberson PN: Gaylord SA Explore: The Journal of Science & Healing, 11 (4):292-5, 2015 Jul-
- 9 Mindfulness-based stress reduction for the treatment of adolescent psychiatric outpatients: A randomized clinical trial. Biegel GM; Brown KW; Shapiro SL; Schubert CM. Journal of Consulting & Clinical Psychology, 77(5):855-66, 2009 Oct. [Journal Article. Nandomized Controlled Trial]
- 10 A Mindfulness Program Adapted for Adolescents With Chronic Paint Feasibility, Acceptability, and Initial Outcomes. Ruskin DA; Gagnon MM; Kohur SA; Stinson JN; Walker KS. Clinical Journal of Pain. 32(11):1019-1029, 2017 Nov.
- A Summer Health Program for African-American High School Students in Baltimore, Maryland: Community Partnership for Integrative Health Pierce 8: Bowden B. McGullagh M; Diehl A. Chisuell IX, doctiguer R; Berman BH; D.
  Adamo CR. Explore: The Journal of Science & Healing, 13(3):186-197.2017 May • Jun.
- 12 A Randomized Controlled Trial Examining the Effect of Mindfulness Meditation on Working Mamory Capacity in Adolescents. Quach D. Jastrowski Mano KE: Alexander K. Journal of Adolescent Health. 58(5):489-96, 2016 05. [Journal Article. Randomized Controlled Trial]
- 13 Within-person changes in mindfulness and self-compassion predict enhanced emotional well-being in healthy, but stressed adolescents. Galls BM. Journal of Adolescence. 49:204-17, 2016-06. [Journal Article, Research Support, U.S. Gov's, P.H.S.]

- 14 School-Based Mindfulness Instruction: An RCT. Sibings EM: Webb L; Ghazarian SR; Ellen JM. Pediatrics. 137(1), 2016 Jan. IJournal Article. Randomized Controlled Trial. Research Support, Non-U.S. Gov's)
- 15 "Being Mindful": Does it Help Adolescents and Young Adults Who Have Completed Cancer Treatment!. Patterson P. McDonald FE. Journal of Pediatric Oncology Nursing. 32(4):189-94, 2015 Jul-Aug. [Journal Article]
- 16 A pilot study of a mindfulness based stress reduction program in adolescents with implantable cardioverter defibrillators or pacemakers. Freedenberg VA; Thomas SA; Friedmann E. Pediatric Cardiology, 36(4):786-95, 2015 Apr. [Journal Article, Research Support, Non-U.S. Gov't]
- 17 A small mixed-method RCT of mindfulness Instruction for urban youth. Sibinga EM; Perry-Parrish C; Thorpe K; Mika M; Ellen JM. Explore: The Journal of Science & Healing. 10(3):180-6, 2014 May-Jun. Journal Article. Randomized Controlled Trial. Research Support. Non-U.S. (Gov'c)
- 18 School-based mindfulness instruction for urban male youth: a small randomized controlled trial. Sbings EM; Perry-Parrish C; Chung SE; Johnson SB; Smith M; Ellen JM, Preventive Medicine, 57(6):799-801, 2013 Dec. Journal Article, Randomized Controlled Trial. Research Support. Non-U.S. Goy't

- 19 Mindfulness-based stress reduction for urban youth. Sibinga EM: Kerrigan D: Seewart M: Johnson K: Magyari T: Ellen JM. Journal of Alternative & Complementary Meddine. 17(3):213-8, 2011 Mar. [Clinical Trial. Journal Article, Research Support, Non-U.S. Gov't)
- 20 Mindfulness-based interventions with youth: A comprehensive meta-analysis of group-design studies. Kingbeil DA: Renshaw TL:Willenbrink JB: Copek RA: Chan KT: Haddock A: Yassine J: Clifton J. Journal of School Psychology, 63:77-103, 2017 Aug. [Journal Article, Meta: Analysis]
- Mindfulness training as an adjunct to evidence-based treatment for ADHD within families. [Review] Cassone AR, Journal of Attention Disorders. 19(2):147-57, 2015 Feb.
- 22 Meditation and mindfulness in clinical practice. [Review] Simkin DR; Black NB. Child & Adolescent Psychiatric Clinics of North America. 23(3):487-534, 2014 Jul.
- 13 Sitting-moditation interventions among youth: a review of treatment efficacy, (Review) [63 refs] Pediatrics. 124(3):e532-41,2009 Sep. Journal Article. Research Support, N.I.H., Extramural, Black DS; Milam J; Sussman \$.
- 24 Mindfulness Meditation and Psychopathology (Review) Annual Review of Clinical Psychology, 2019 Joseph Wielgosz, Simon B Goldberg, Tammi R.A. Kral, John D Dunne, Richard J Davidson

Center for Healthy Minds: toma //contented by minds or K

UMass Center for Mindfulness https://overscommasturbable/find

Omega Institutes interdisesse manage by 2

UCLA Mindful Awareness Research Centers https://overscommasturb.or/

Links to other resourcess

- this formational profitable
- bits formation of profitable
- this formation of profitable
- this formation of profitable
- this formation of the profitable
- this formation of the profitable by the profitable
- this formation of the profitable by the profitable by the profitable
- this formation of the profitable by the prof

			3
4			