



HEALTHY ARIZONA WORKSITES PROGRAM
(HAWP) PRESENTS:

BRAIN LONGEVITY® IN THE WORKPLACE: HOW TO MAXIMIZE YOUR RESILIENCE DURING COVID-19

Presented by:

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WEBINAR HOUSEKEEPING

WELCOME

All lines have been muted.

Please type any questions into the chat or Questions panel and we will do our best to answer them all at the end.

All handouts and a copy of the presentation slides are available in the Handouts panel.

Please complete the survey that will be emailed out after the presentation

A recording will be added to the library of HAWP webinars on our website within 48 hours.

Special thanks to our supporting partner the Alzheimer's Research and Prevention Foundation for their generous support in making this webinar possible.

Brain Longevity® in the Workplace: How to Maximize Your Resilience during COVID-19

Dr. Patricia Cornille

November 13th, 2020



Objectives

- ❖ The difference between Dementia, Mild Cognitive Impairment and Alzheimer's disease and the impact on public health
- ❖ Brain changes that occur with Alzheimer's dementia
- ❖ The risk factors associated with Alzheimer's dementia
- ❖ Evidence supporting lifestyle approaches that can optimize brain health and reduce the risk of developing dementia
- ❖ Strategies for personal health behavior change and how to maximize habits and routines especially during the Covid-19 pandemic

“Dementia is now widely recognized as one of the most significant health crises of the 21st century.”

Major cause of dependency and disability among older people worldwide

(Alzheimer's Disease International, 2020)



The Number of People with Dementia is Increasing Globally

Approximately 50 million worldwide

New case of dementia every 3 seconds

(World Alzheimer's Report, 2018)



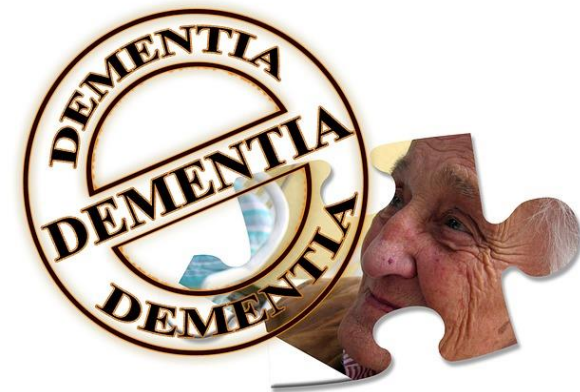
Dementia in the United States

Estimated that 5.8 million individuals live with dementia

Many individuals that meet diagnostic criteria and are not diagnosed

Many individuals with a diagnosis in their medical record are not told until the later stages

(Alzheimer's Association, 2020)



Public Health Impact

- ❖ Overall Cost - \$305 billion
- ❖ Caregiver Stress- 16 million providing unpaid care
 - ❖ Shortage in healthcare professionals
 - ❖ Need for education and awareness
- ❖ Almost 80 percent of the general public are concerned about developing dementia and ¼ believe there is nothing we can do to prevent it
- ❖ Covid-19 Pandemic

Defining Dementia

- ❖ Dementia is a syndrome that impacts memory thinking and behavior- affects ability to perform everyday activities
- ❖ Alzheimer's Disease – most common (60-80%)
- ❖ Irreversible and progressive
- ❖ Slowly destroys memory, thinking skills, and ability to carry out basic functions
- ❖ Thought to begin 20 years or more before symptoms arise

(Alzheimer's Association, 2020)



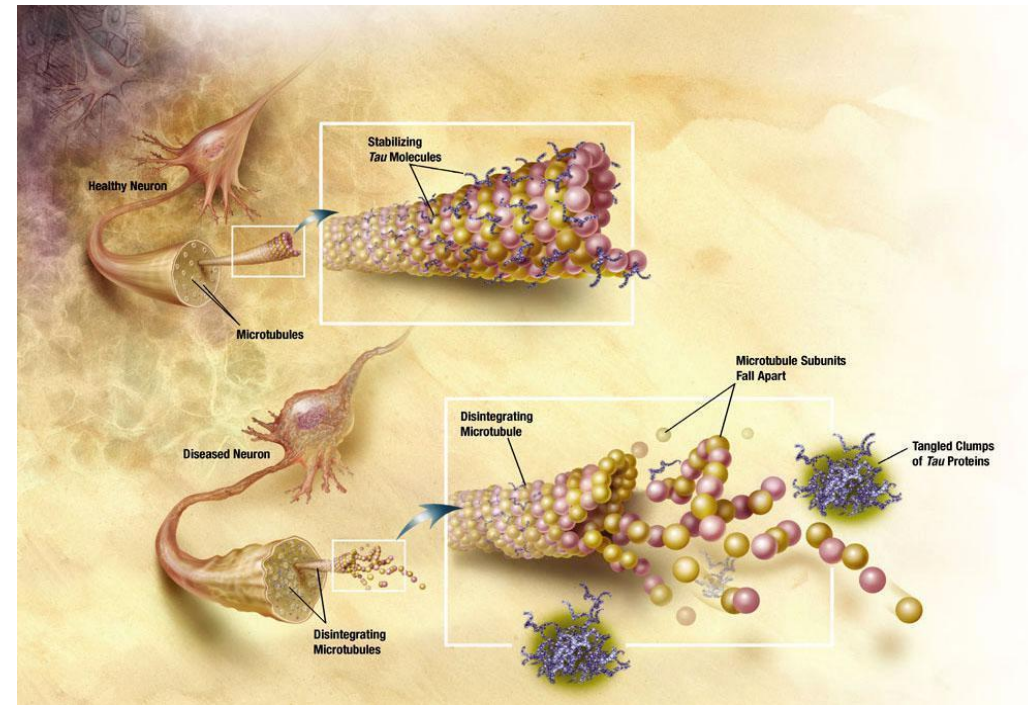
Progression

- ❖ Subjective Cognitive Decline *testing normal; activities intact*
- ❖ Mild Cognitive Impairment-***testing impaired;*** *everyday activities generally not affected*
- ❖ Dementia -***testing impaired; activities impaired***

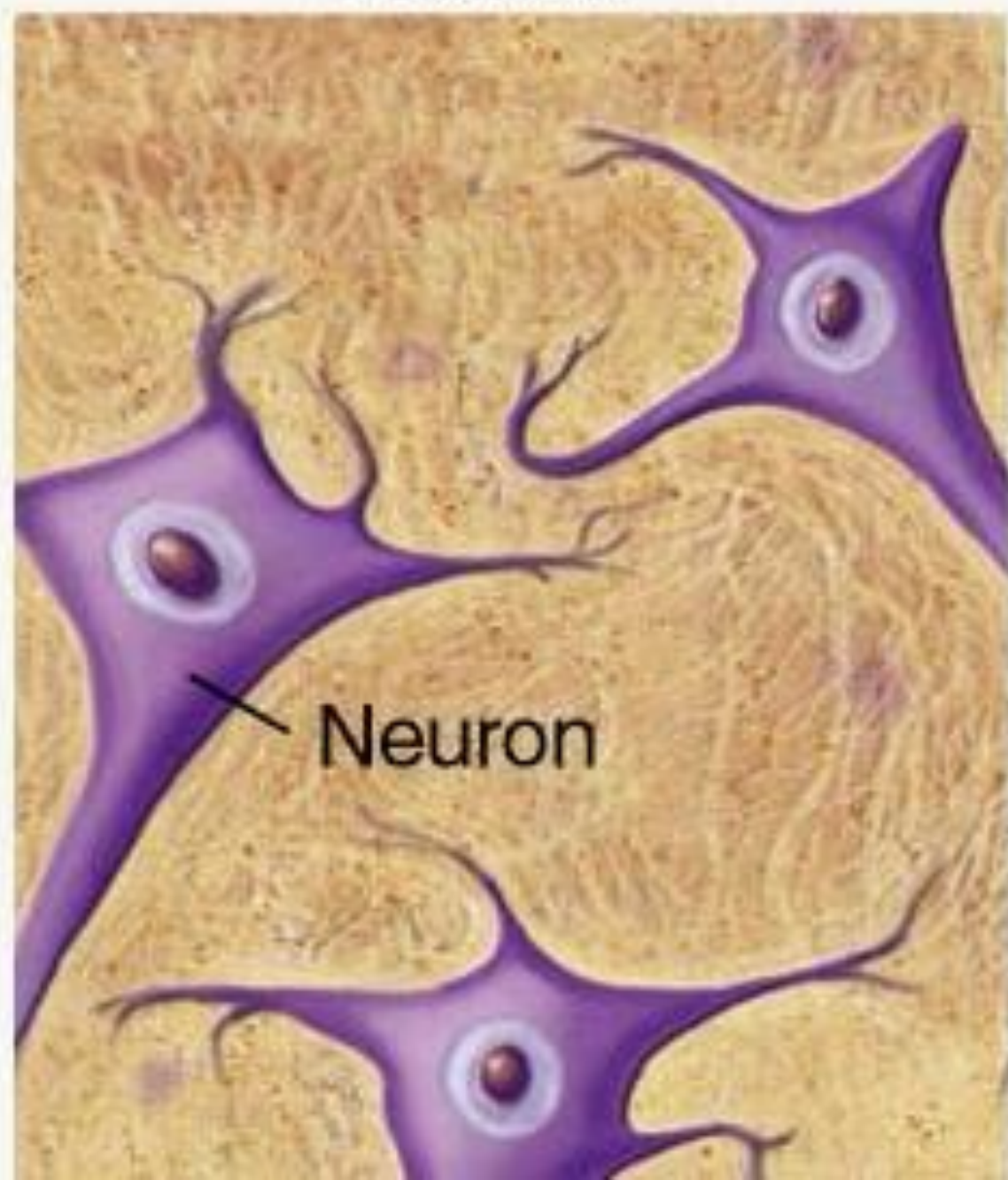
Amyloid Plaques & Tau Tangles

Beta-amyloid proteins play a role in healthy brain function . If too much is made they form **plaques** associated with Alzheimer's disease.

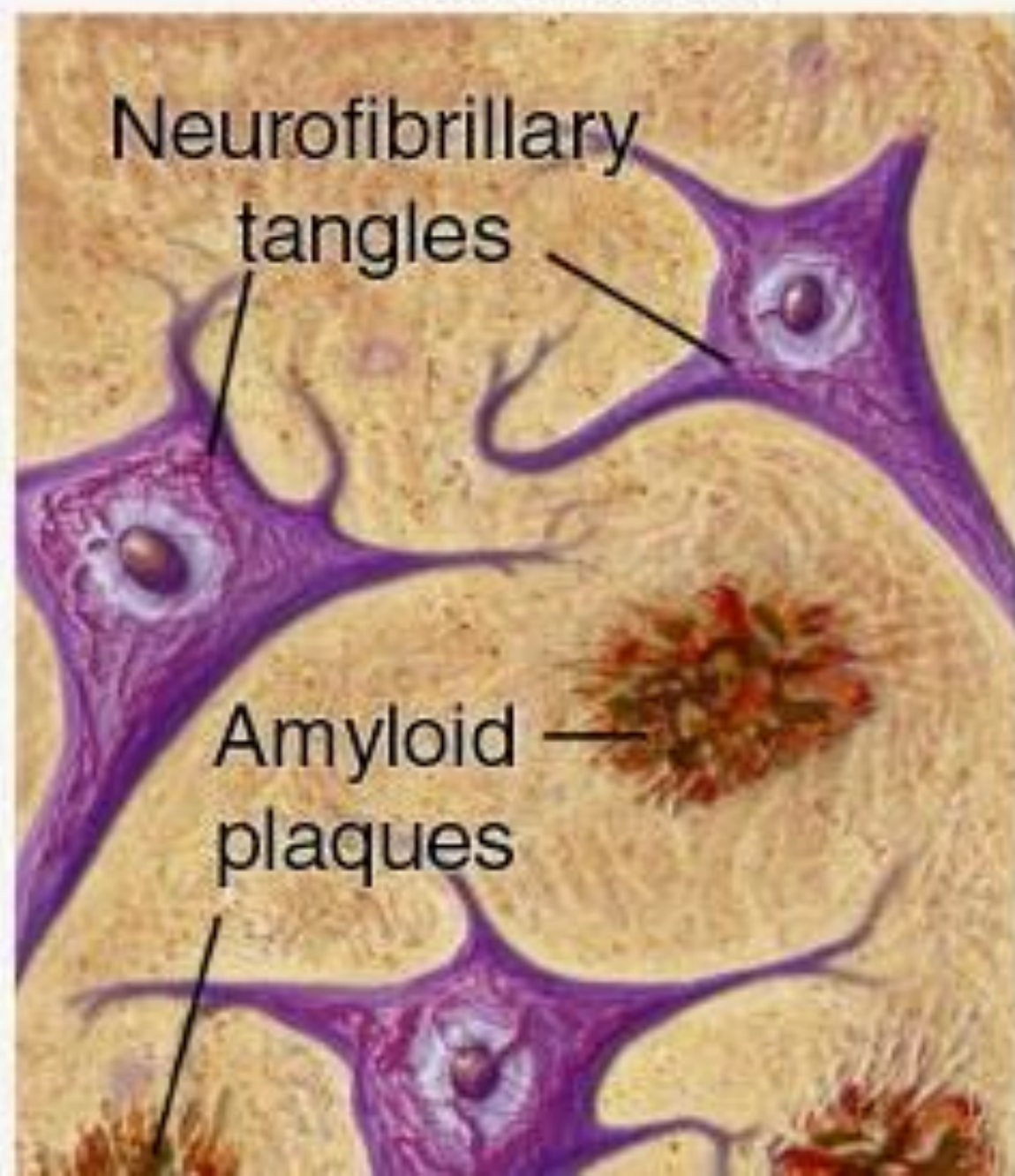
A Tau, is a protein in the brain that stabilizes structures in brain cells that work like railroad ties holding tracks together to transport nutrients throughout the cell.



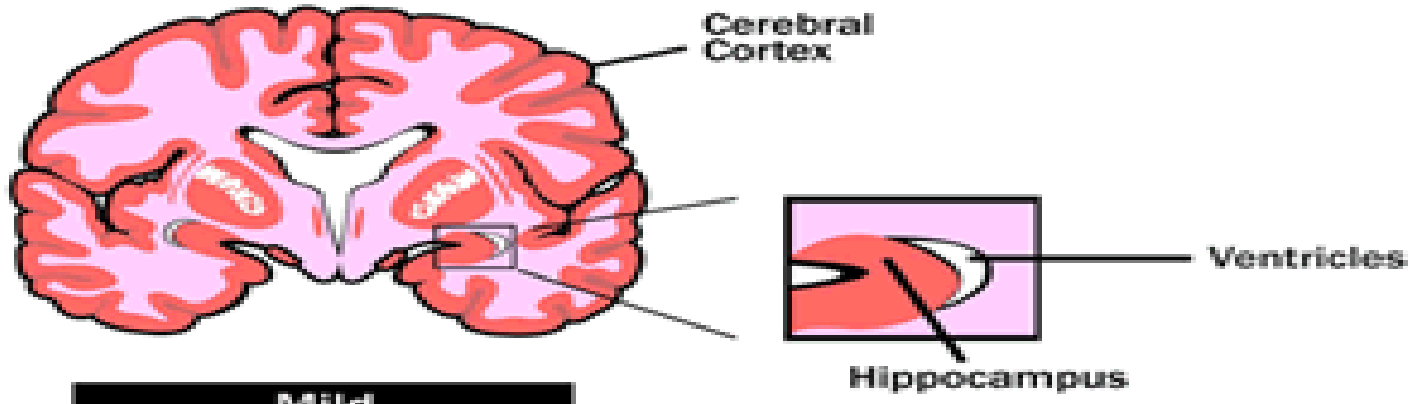
Normal



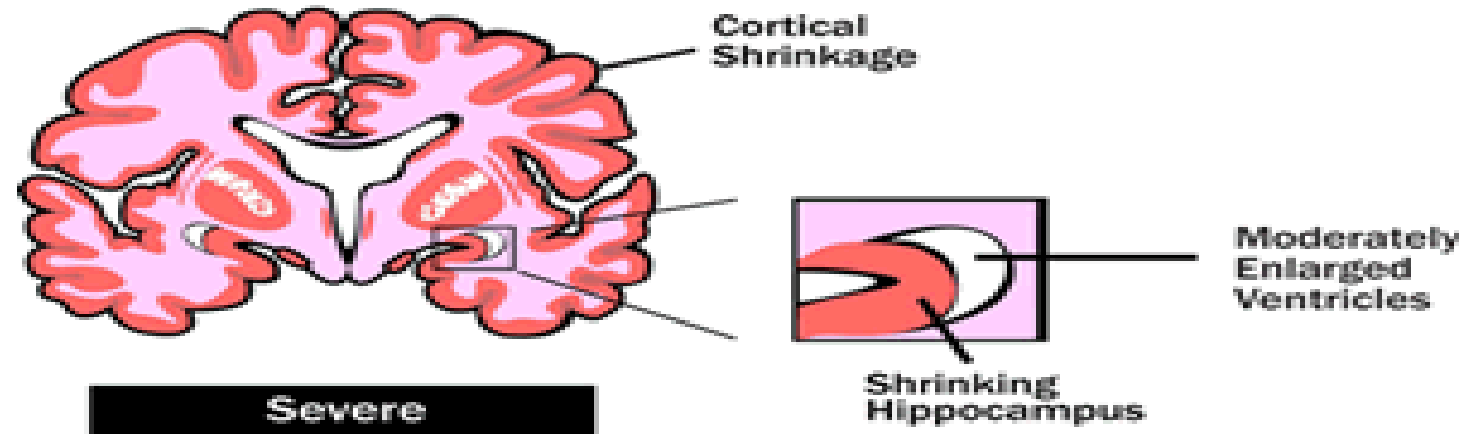
Alzheimer's



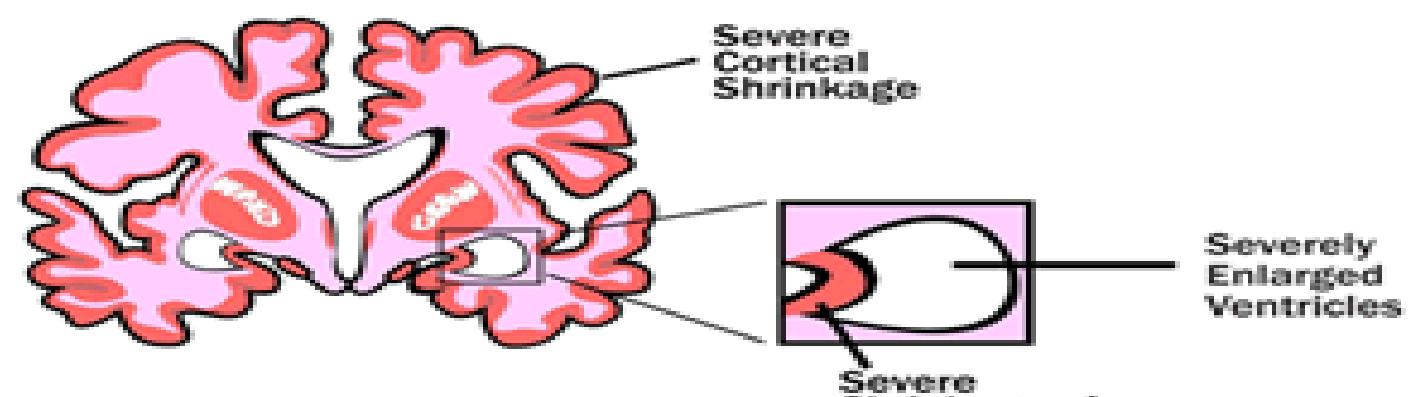
Healthy Brain



Mild Alzheimer's Disease



Severe Alzheimer's Disease





Neuroplasticity

The brain adapts to its environment based on experiences.

Ability of the nervous system to respond to internal or external stimuli by reorganizing its structures, function, and connections.

Adaptive

The human brain has the amazing ability to reorganize itself by forming new connections between brain cells (neurons).

Negative and Positive

(Puderbaugh & Prabhu, 2020)

Non- modifiable Risk Factors

- ❖ Age
- ❖ Family History
- ❖ Genetics

(Alzheimer's Association, 2020)

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Modifiable Risk Factors

- ❖ Regular physical activity
- ❖ Diet
- ❖ Alcohol consumption
- ❖ Lifelong learning/Education
- ❖ Social connection
- ❖ Hearing impairment
- ❖ Sleep/Stress
- ❖ Depression
- ❖ Management hypertension and prevention of diabetes
- ❖ Head Injury
- ❖ Air pollution

(Livingston et al., 2020)

Life Course Approach

It is never too early or too late to promote brain health

- ❖ Recognizes the opportunity to prevent and control diseases at key stages throughout life
- ❖ Looks at a trajectory of health versus considering a person healthy until disease occurs

4 Pillars-Brain Longevity® Therapy

- ❖ Exercise
- ❖ Diet
- ❖ Stress Management
- ❖ Spiritual Fitness



Regular Physical Exercise

Leisure time and targeted physical activity promotes brain health across the adult lifespan

- ❖ Growth of new brain cells
- ❖ Improves cognitive performance/early memory loss
- ❖ Increases oxygen and glucose to the brain – improved blood flow
- ❖ Increase BDNF- brain-derived neurotrophic factor
- ❖ May affect Amyloid and Tau proteins in the brain
- ❖ Boosts endorphins
- ❖ Decreases cortisol
- ❖ Helps prevent and treat diabetes
- ❖ Maintain and improve overall function

Exercise-general guidelines

- ❖ Safety First
- ❖ 150 minutes- 2.5 hours of moderate aerobic exercise or 1.5 hours of strenuous aerobic exercise,
- ❖ Two strength building workouts – squats, yoga, weight training, wall pushups
- ❖ Balance/gait training to help prevent falls.

Physically active during social distancing

<https://www.cdc.gov/physicalactivity/how-to-be-physically-active-while-social-distancing.html>

Physical Activity Breaks for the Workplace

Brain Fitness Exercise

- ❖ Boosts oxygen and blood flow to the brain
- ❖ Strengthens existing neurons, adding cells and creating neural pathways
- ❖ Improves depression
- ❖ Promotes well-being with people with dementia

Cognitive Reserve/Brain Fitness

Maintain or preserve cognitive abilities in everyday activities despite brain pathology

- ❖ Education
- ❖ Complexity of work and leisure
- ❖ Affected by early life factors such as education

(Hahn & Lee, 2019)

Brain Fitness- considerations

- ❖ 20 minutes per day three times a week
- ❖ Engage attention
- ❖ Be novel and challenging
- ❖ Involve more than one of the senses
- ❖ Enjoyable/meaningful

(yoga, playing music, crossword puzzles, take a class, intellectual activity-problem solving)

Diet

- ❖ Mediterranean diet
- ❖ Blue Zones
- ❖ DASH diet
- ❖ MIND diet
- ❖ Vegetarian /Vegan
- ❖ Brain Longevity diet
- ❖ Whole Food Plant Based diet

Brain Longevity Diet Principles- ARFP

- ❖ Lean/clean proteins
- ❖ Less meat
- ❖ Good fats/Bad fats -processed food/sugar
- ❖ Juicing
- ❖ Cook consciously-eat with awareness
- ❖ Go certified organic /limit GMOS



Stress Management- chronic stress

- ❖ Stress hormone cortisol – affects hippocampus/memory
- ❖ Sympathetic nervous system- goes into overdrive
- ❖ Brain inflammation
- ❖ Diminishes telomerase levels
- ❖ Leads to anxiety and depression

(McEwen, 2017)



Yoga and Meditation- Managing Stress

Yoga and Medical Meditation as Alzheimer's Prevention Medicine: The Work of the Alzheimer's Research and Prevention Foundation

“The greatest breakthrough for Alzheimer's disease in the past decade is the realization that the way we live our life is critical to the quality of life and brain health as we age.”

-George Perry, Ph.D., Alzheimer's Expert, Editor-in-Chief of the Journal of Alzheimer's Disease, and Dean, University of Texas.



www.alzheimersprevention.org



Kirtan Kriya(KK) -12 minutes a day

- ❖ Improves Sleep
- ❖ Reduces Stress
- ❖ Increases Energy Levels
- ❖ Benefits Memory
- ❖ Decreases Anxiety and Depression –Improves well-being
- ❖ Increases Telomerase-43%
- ❖ Down regulates Genes that Cause Inflammation
- ❖ Enhances Neurotransmitter Function
- ❖ Increases Blood flow in the brain



KK

- ❖ Breath
- ❖ Posture
- ❖ Sound/Mantra
- ❖ Finger movements
- ❖ Focus/concentration/Visualization

The diagram illustrates the hand positions for the four sounds: Saa, Taa, Naa, and Maa. Below the hand positions is a musical notation for Adagio (♩ = 66) in 4/4 time, showing the sequence of notes for Saa, Taa, Naa, and Maa. The copyright information at the bottom reads: © 2003, 2015 Alzheimer's Research and Prevention Foundation. Trademark of Alzheimer's Research and Prevention Foundation.



Sleep- one of the most important things you can do for the brain

- ❖ Clears out toxins – which include beta-amyloid proteins
- ❖ Supports the immune and nervous systems
- ❖ Consolidates memory and thought
- ❖ Helps the brain function – next day – all ages
- ❖ Sleep deprivation- impaired judgement and concentration, weight gain, health conditions

Sleep



How much is enough?

How long does it take to fall asleep?

Do you feel rested when you wake up?

Do you wake up during the night?

Do you feel sleepy in the day?

Sleep-Lifestyle Approach

- ❖ Exercise/Yoga
- ❖ Exposure to natural sunlight
- ❖ Avoid looking at blue light screens-2-3 hours before bed(computer, TV, phone)
- ❖ Limit Caffeine, alcohol, nicotine, large meals
- ❖ Consider depression and stress
- ❖ Keep bedroom cool 68-72 degrees
- ❖ Consistent sleep schedule
- ❖ Relax before bed – (warm bath, meditation , gratitude journal)
- ❖ Consult your doctor

(Lenz,2013)

Spiritual Fitness

Pursuit of happiness and meaning in life- sense of purpose

ARPF defines 4 key areas

- ❖ Patience
- ❖ Awareness
- ❖ Compassion
- ❖ Surrender



Spiritual Fitness- Social Connection

World Health Organization(WHO) now lists “social support networks” as a determinant of health

- ❖ More than 25% of population lives alone
- ❖ Over ½ adult US population is not married (1/5 never married)
- ❖ Divorce rate- approx. 40 %
- ❖ 20-43% of adults over the age of 60 experience frequent or intense loneliness
- ❖ Married couples -3/10 relationships are significantly discordant

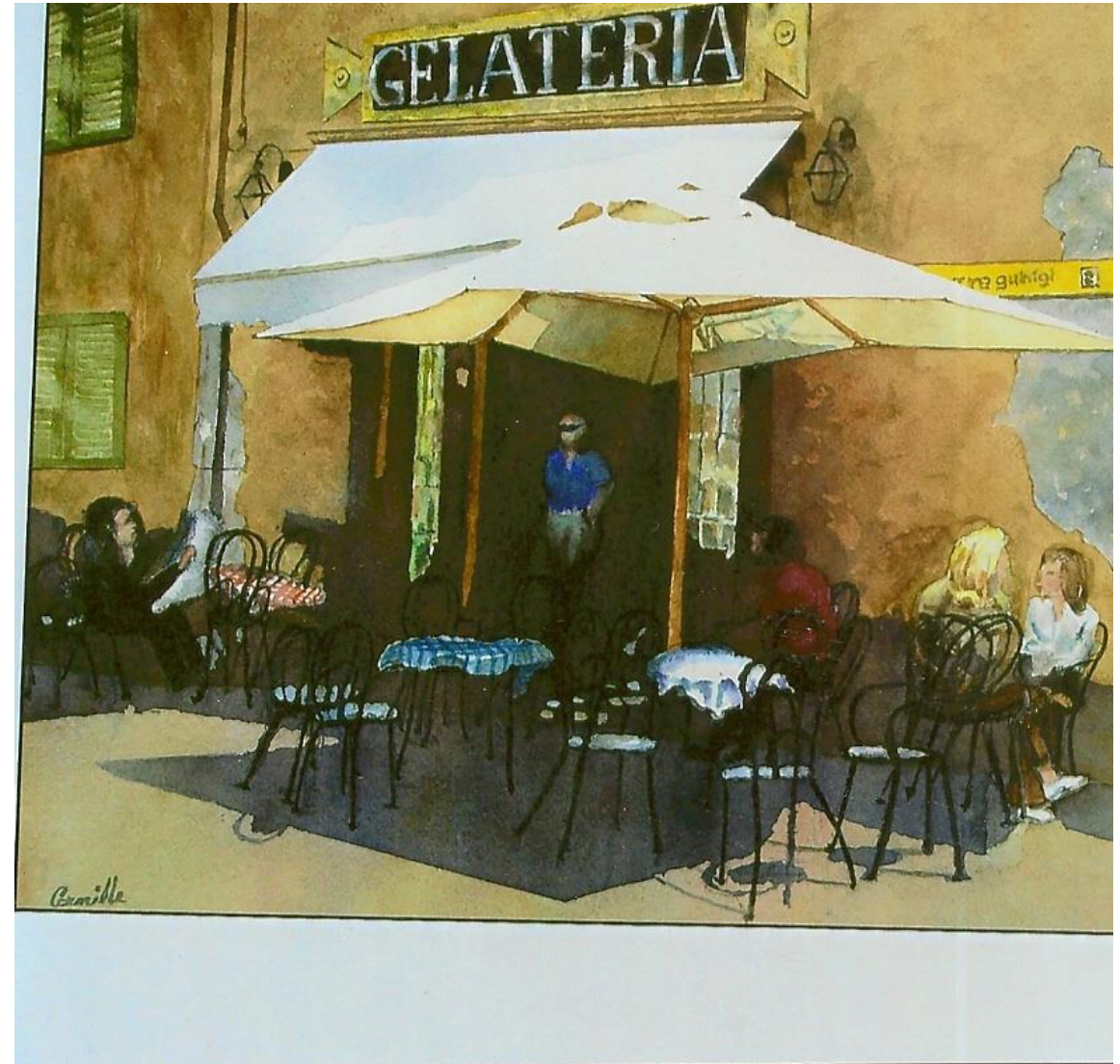
(Holt-Lunstad,Robles & Sbarra, 2017)

Social Connection – Individual differences

- ❖ Structural- social network size/density, marital status, living arrangement, social engagement/activities, social isolation, social networks
- ❖ Functional- received or perceived social support, perceived loneliness, feelings of not belonging
- ❖ Qualitative-Perceptions of positive and negative qualities of relationships

Each influence health in different ways

(Holt-Lunstad, Robles & Sbarra, 2017)



Embedding Health-Promoting Changes Into Daily Routines

- ❖ Small incremental changes are important
- ❖ Doesn't have to be perfect to effect change



Building and Maintaining Habits

Do-Live-Well framework

- ❖ *Activity Patterns – engagement, meaning, balance, choice and control*
- ❖ *Dimensions of experience- connecting with others and selfcare*
- ❖ *Personal and social influences that impact social engagement*
- ❖ *Accessing concepts of well-being*

(Moll et al., 2017)

Flourishing Scale

- ❖ I lead a purposeful and meaningful life
- ❖ My social relationships are supportive and rewarding
- ❖ I am engaged and interested in my daily activities
- ❖ I actively contribute to the happiness and well-being of others
- ❖ I am competent and capable in the activities that are important to me
- ❖ I am a good person and live a good life
- ❖ I am optimistic about my future
- ❖ People respect me

(Diener & Biwas-Diener, 2009)

Social Connection

The Road of Life:

*Let us never take for granted those our hearts are surest of
Let us always keep them close to us and tell them of our love..
For our days on earth are precious, and our journey all too swift.
The time we share together is life's most important gift.*

~ Anonymous



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Q&A

**PLEASE ENTER YOUR
QUESTIONS IN THE CHAT.**

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A background image of a cityscape with mountains in the distance, overlaid with a semi-transparent blue filter.

CONTACT US



**THANK YOU
FOR WATCHING!**

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