Brain Longevity: A science-based Lifestyle protocol for the Prevention of Cognitive Decline

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Alzheimer’s Research and Prevention Foundation (ARPF):

Founded in 1993 by Dharma Singh Khalsa, MD

Mission: Dedicated to the Prevention of Alzheimer’s Disease by **funding neuroscience research** on meditation as an Integrative Medicine modality and **providing educational outreach** and memory **screenings**.
Alzheimer’s Research and Prevention Foundation (ARPF):

Designing and funding groundbreaking work for 25 years:

• Dedicating research to the *prevention* of Alzheimer’s through meditation and lifestyle
• Revolutionizing the conventional medical wisdom
• Establishing Alzheimer’s disease (AD) as a preventable disease that can even be effectively treated and often prevented via a brain-healthy lifestyle
• Educating the public about the disease and ways to delay its development

1st International Conference on the Integrative Medical Approach to the Prevention of Alzheimer’s Disease

October 10-12, 2003 • Wyndham Buttes Resort, Tempe (Phoenix), Arizona

Conference Agenda

Friday, October 10, 2003

Key Note Presentation - Richard Carmona, U.S. Surgeon General, invited

Recent Advances in the Treatment of Alzheimer’s Disease: Present State of the Disease, Pathogenesis and Early Diagnosis
Yogesh Shah, M.D. - Associate Program Director Integrative Medicine, Mercy / Mayo Clinic, Des Moines, IA

Dementia has become one of the leading public concerns in our society. At least six to ten percent of persons in the United States aged 65 or older may suffer from some form of dementia. This talk will describe the evaluation of the patient with memory complaints.

Multiple Hormone Therapy in the Prevention of Cerebral Vascular Disease, Alzheimer’s Disease and Dementia
Neal Rozzler, M.D., FACEP - Director of Preventive Medicine Clinics of the Desert, Palm Springs, CA

The medical world was shocked in July 2002 when a report was published in JAMA showing that Prempro caused cancer. This report affirmed what many women had feared: “hormone replacement causes cancer.” However, it was not reported that it was Provera that increased the risk of cancer and that the estrogen arm of the study showed no increased risk of heart disease or cancer. A study published in JAMA showed that women taking estrogen for 10 years or more are protected against developing Alzheimer’s disease. The American Academy of Neurology recommends testosterone for men to protect against Alzheimer’s. Several studies have shown growth hormone to protect against the Beta amyloid protein deposition and Alzheimer’s. Thyroid supplementation to high normal levels improves cognitive function and memory. Many hormones have been
Stress Increases Risk Factors for AD

1. Memory Loss
2. Inflammation
3. Heart Disease
4. Insomnia
5. Diabetes
6. Anxiety / Depression
7. Immune Dysfunction
8. GI Issues
9. Loss of Spiritual Direction
Stress Increases Risky Behavior (Modifiable Risks)

1. Poor dietary choices
2. Too tired to exercise
3. Too exhausted to use cognitive training
4. No time to meditate (perception)
5. Well-Being non existent
6. Unconscious Compulsive Self-Defeating Behavior (blind spots activated)
The Impact Of A Lifetime Of Stress Is Decreased Brain Function:

1. Memory
2. Mood
3. Cellular and genetic health
4. Mind/body/spirit imbalance

Time Doesn’t Heal, it Only Conceals
The Psychology of Alzheimer’s Prevention

• Practices & Interventions that focus upon health, growth & restoration.
• Emphasis upon eudemonic/wisdom development
• Primary and Secondary Prevention Approaches (Yoga Therapy)
Primary & Secondary Prevention Approaches

**Lifestyle Factors:** Aging prevention strategies that focus on diet, moderate alcohol use, physical activity and non-smoking, when focused upon all four dramatically reduce the risk for all-cause mortality.

**Social Factors:** Being embedded in community plays a critical role in mitigating the effects of life’s most stressful experiences.
Barnett & Shale (2012) reported that many consumers of psychological services already use complimentary and alternative medical services (CAIM) in their lives.

Psychologists wishing to integrate CAIM into their treatment all need to possess higher levels of competence and training.

Yoga therapy in particular targets the neural mechanisms that are involved in regulation, attention, emotional control, mood and executive function—all that help promote greater brain health and longevity.
Applied Body Psychotherapy

• Yoga is the oldest known discipline that combines the psychological, physiological and complex body dynamics.

• The system created by the yogis remains the most complete practice that promotes the engagement of the organism and its dimensions.

• It remains one of the most popular mind-body interventions in the world.

The ARPF Four Pillars of Alzheimer’s Prevention

1. Diet and Brain Specific Nutrients
2. Stress Management
3. Exercise (Mental & Physical)
4. Spiritual Fitness
   (Combo of PWB & SWB)
ARPF’s Groundbreaking Research - Examples of Pioneering Work

1993
ARPF was founded by Dharma Singh Khalsa, M.D.

1994
Presentation at Arizona Holistic Nurses Association’s annual meeting

1997
Article in Journal of Alternative Therapies

2003
Testified before US congress about AD prevention platform

2003
First Kirtan Kriya (KK) yoga research with Amen Clinic / University of California, Irvine

2003
Organized the “1st International Conference on the Integrative Medical Approach to the Prevention of Alzheimer’s Disease” for medical professionals

2008
KK study at University of Pennsylvania

2009
KK study at UCLA in caregivers of dementia patients

2012
Supporting and collaborating with the Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER Study) at the Karolinska Institute in Stockholm, Sweden

2015
KK study at WVU in individuals with Subjective Cognitive Decline

2013
KK study at West Virginia University in adults at risk for AD

2016
KK study at UCLA comparing yoga and memory training: KK shows superior results

2010 - 2017
24 Papers Published in Leading Medical Journals
Research: Research Partners
Research: Contributions to Medical Textbooks
Research History: 30 Papers Published in Prestigious Medical Journals since 2010
Research:

In 2017, ARPF research was published three times in the Journal of Alzheimer's Disease.

**Baseline Telomere Length and Effects of a Multidomain Lifestyle Intervention on Cognition: The FINGER Randomized Controlled Trial**

Shireen Sindi, a,b,c, Tiia Ngandy, b,d Jiris Hovatta, e Ingemar Kåreholt, a,f Riitta Antikainen, g,h,i Tuomo Hänninen, j Esko Levälahti, d Tiina Laatikainen, d,k,l Jaana Lindström, d Teemu Paajanen, m Markku Peltonen, d Dharma Singh Khalsa, n

**Meditation and Music Improve Memory and Cognitive Function in Adults with Subjective Cognitive Decline: A Pilot Randomized Controlled Trial.**

Innes KE,1,2, Selfe TK,1,2, Khalsa DS,3,4, Kandati S,1.
Kirtan Kriya

Preventing Alzheimer’s in 12 Minutes a Day?

Up

Posterior Cingulate Gyrus

Khalsa, D.S., Newberg, A. Jl of Nuclear Med Communication 2009
Stress Impacts Your Genes & DNA by Shortening Telomeres: (DNA Segments at End of Chromosomes)
Kirtan Kriya on Telomerase

Present Day: Presenting Research at Major Medical Conferences
Future Directions

Slowing the Progression of Memory Loss: Subjective Cognitive Impairment (SCI) and Mild Cognitive Impairment (MCI) at the UCLA School of Medicine & The University of West Virginia:
Functional MRI, Memory Training, Biomarkers of Neuroplasticity of Yoga and KK to memory training in a 12 week study of Adults 55+

Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability in Stockholm, Sweden:
Four Pillars Approach of Nutrition, Exercise, Cognitive Training, and control of cardiovascular risk factors, Looking at telomere length before/after depression, etc.
Research Partner: Dr. Miia Kivipelto, FINGER Karolinska Institute, Sweden
How to Move from Information to Experience
Kirtan Kriya

1. Breath
2. Posture
3. Mantra
4. Mudra
5. Focus
The Benefits of KK in 12 Min/Day

1. Can be easily learned and practiced at home with a CD
2. Strengthens the brain, like going to the gym strengthens the body
3. Improves attention, concentration, focus and memory
4. Better mood, less depression and anxiety
5. More mental and physical energy
6. Enhanced Genetic Health
Due to the aging of our population, there is a great need for evidence-based, lifestyle tools that help older adults stay mentally healthy and sharp, and remain active members of our community. Thus the creation of the Brain Longevity® Therapy Training.
Brain Longevity® Therapy Training

Program Designed for:

• Neuroscientists
• Healthcare Providers
• Leaders in the Healthcare Industry
• Mental Health Therapists
• Caregivers
• Individuals who want to learn how to improve their own brain health

Inaugural Class of 2017
Brain Longevity® Therapy Training

• Goals and Objectives: Develop and support Brain Longevity Instructors who serve as ambassadors for healthy aging and Alzheimer’s prevention throughout cross sections of society.

• Course Format: Pilot course is a 4-day, in-person training. We will utilize the feedback from this course to improve the training and make available a portion of the curriculum as e-learning, and adapt the program for future offerings.

• Lead Trainers: Dharma Singh Khalsa, MD
  Chris Walling, PsyD, C-IAYT
  Kirti Khalsa, E-RYT

  Assistant Trainers:
  Carol Hahn, MSN, RN, RYT
  Dr. Patricia Cornille, OTD, OTRL, CCECL
Brain Longevity® Therapy Training

High Praise for Training, testimonials from attendees:

“The staff is exceptional and very accommodating. Materials and organization of curriculum was great and beyond expectations. Speakers were awesome and leaders in their field.”

“The faculty is amazing. The research was interpreted in a meaningful way. I now have a program that I can share with my family and community.”

“This was one of the most amazing experiences that I have had. The training exceeded all my expectations, and was so much more than a training... it was an awakening for all of us to go out into the world and make a difference.”
Brain Longevity® Therapy Training

By the end of 2018:

• 100 certified teachers from across the USA and Mexico, Europe and Australia.
• Various Brain Longevity Teachers are already presenting at conferences and in their community:
  • California Assisted Living Association
  • Aging and Brain Health Workshop –Colorado
  • California Yogafit Conference
What Can You Do?
Join us in Washington D.C.!
10/12-10/14
American University Washington College of Law, Washington, DC

YOU CAN HELP AGING BOOMERS MAINTAIN OPTIMAL BRAIN HEALTH

www.alzheimersprevention.org/training
To Learn More:

www.alzheimersprevention.org

drchris@alzheimersprevention.org

Thank You!