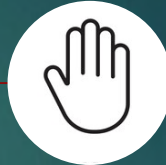
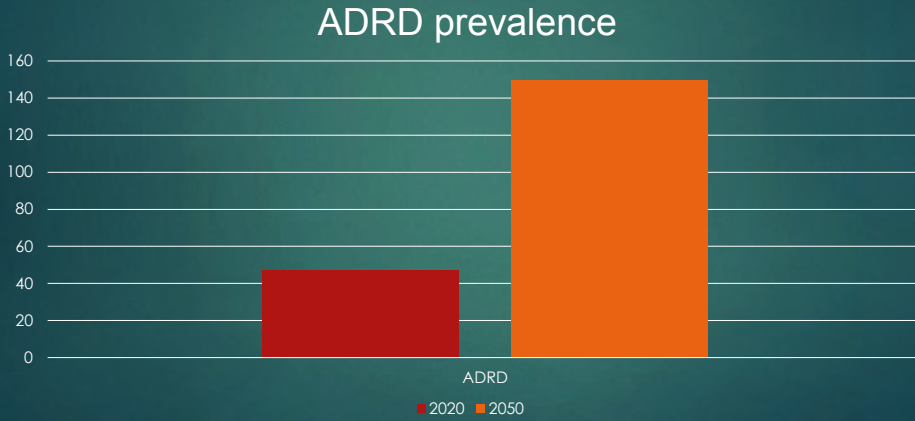


Geriatric 4Ms: Mind

Goals

- ▶ Report epidemiology of dementia
- ▶ Use a 3 prong approach to dementia
- ▶ Challenges to assessment
- ▶ Interventions

ADRD to triple by 2050



Prevent



Treat



Palliate

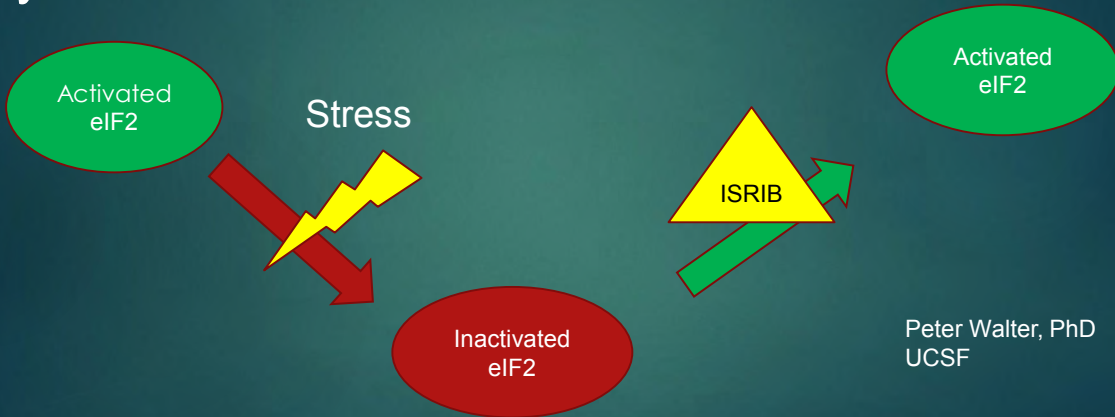
Prevention

- ▶ Lifestyle
- ▶ Chronic conditions
- ▶ Reverse aging



Stress Response

Integrated Stress Response: small molecule therapy to release the brakes on inhibited protein synthesis



UND Geriatrics Laboratory

UND Biomedical Research

Infections and dementia

14 Brain Disorders Studied in COVID-19 Survivors

- Anxiety disorder
- Dementia
- Encephalitis
- Guillain-Barré syndrome
- Insomnia
- Intracranial hemorrhage
- Ischemic stroke
- Mood disorder
- Myoneural junction or muscle disease
- Nerve, nerve root, or plexus disorders
- Parkinsonism
- Psychotic disorder
- Psychotic, mood, and anxiety disorders (grouped)
- Substance use disorder

Cognitive Assessments

- ▶ Screening in Primary Care
- ▶ Evaluations by Geriatrics and Neurology consultants

Assessments: quick, reliable screens

- ▶ Mini Cog
- ▶ AD8
- ▶ Category fluency

Assessments: deeper dive

- ▶ SLUMS
- ▶ Neuro – psych evaluation

If screen +

- ▶ Caregiver burden
- ▶ ADRD referral
- ▶ Caregiver training

Dementia management

- ▶ Non pharmacological
- ▶ Pharmacologic
 - ▶ Herbal
 - ▶ Medication

Non pharmacological therapies

- ▶ Diet
- ▶ Exercise
- ▶ Cognitive interventions



Nutritional interventions for AD

Ketogenic diet for AD

Eliminate

- ▶ potatoes, grains, red meat, sugar-sweetened beverages, and desserts

Add

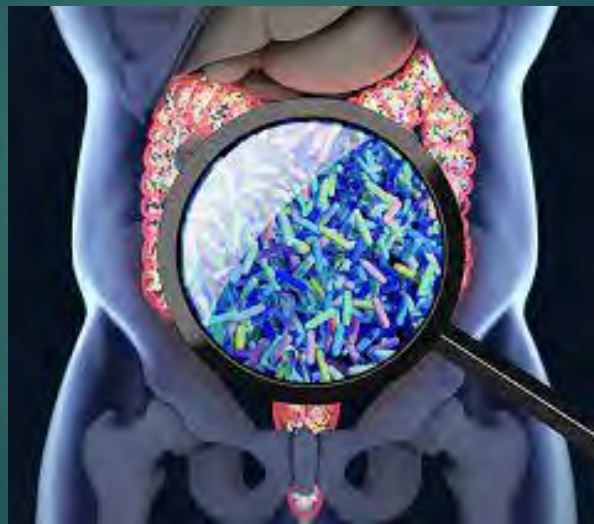
- ▶ KD was characterized by increased medium-chain triglyceride (MCT) oil, nonstarchy vegetables, butter, eggs, olive oil, avocados, and nuts and seeds

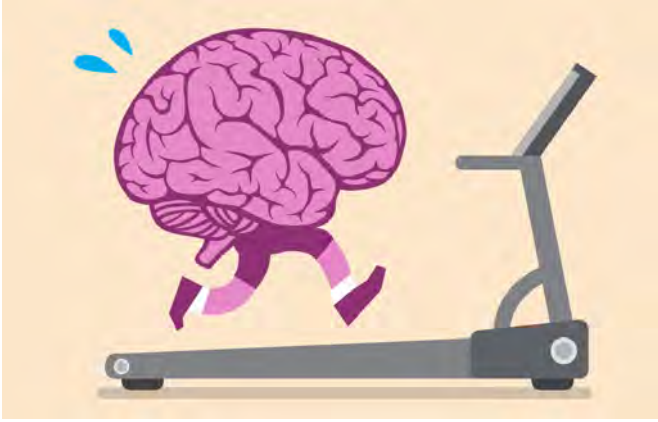
12 week keto diet

Metric	Test	Result
Cognition	ACE III	No change
Function	ADCS – ADL	Improved 3.13 points
Quality of life	QOL – AD	Improved 3.37 points

Phillips, M.C.L., Deprez, L.M., Mortimer, G.M.N. *et al.* Randomized crossover trial of a modified ketogenic diet in Alzheimer's disease. *Alz Res Therapy* **13**, 51 (2021). <https://doi.org/10.1186/s13195-021-00783-x>

Gut biome





Exercise

Cognitive Therapy



Social Therapy

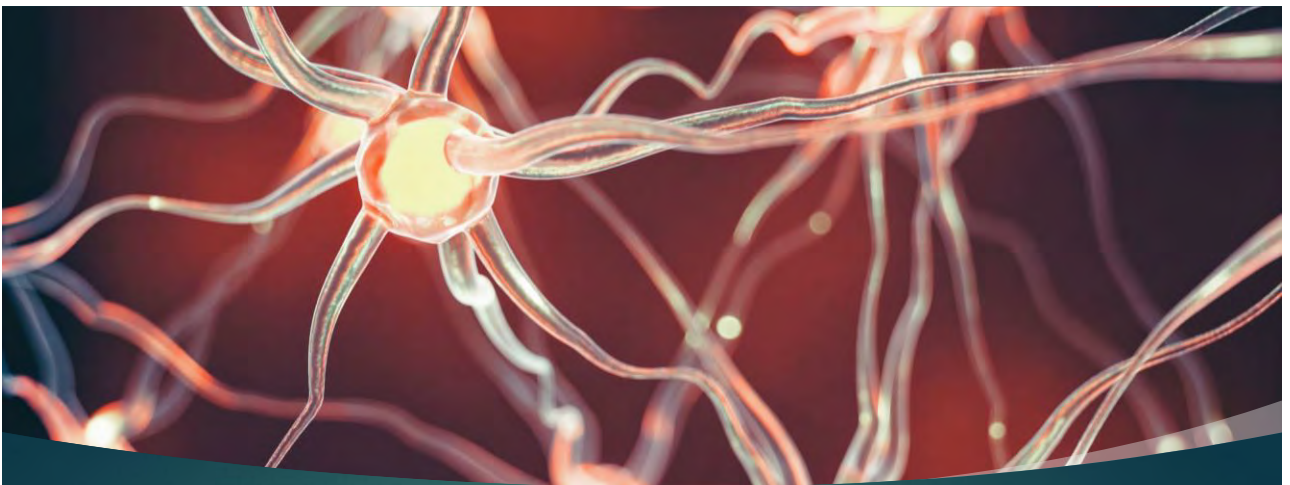
- ▶ Tellegacy and reminiscence

Fall prevention

- ▶ Dual task training
- ▶ Distance eyeware only
- ▶ Disimpact cerumen
- ▶ Vitamin D
- ▶ Avoid anti – depressants and anti – psychotics
 - ▶ Treat pain before behavior

Pharmacologic treatments for Dementia

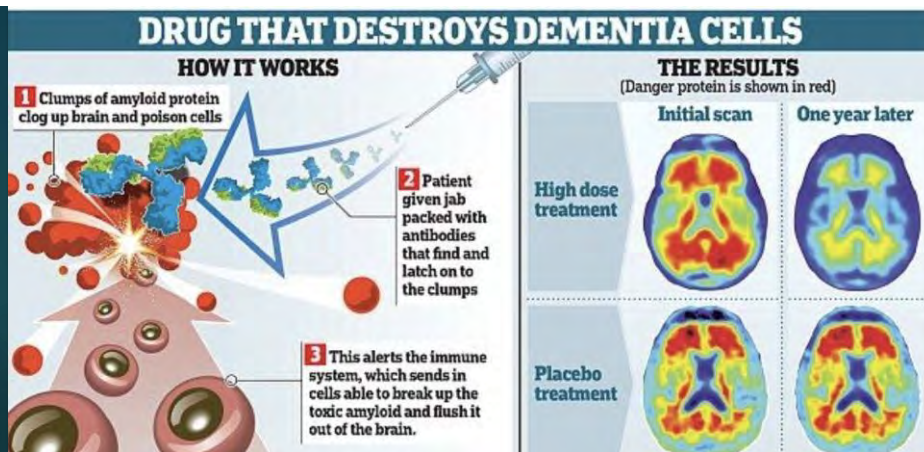
- ▶ Neuroprotection
- ▶ Neurotransmitter deficiencies
- ▶ Anti – toxins



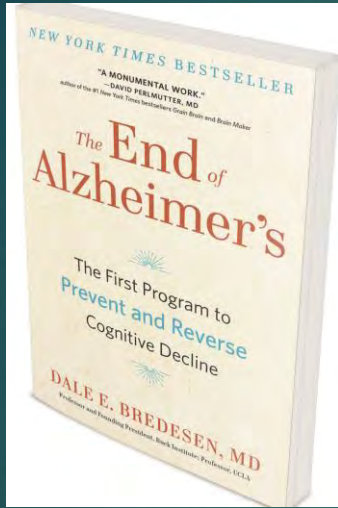
Neuroprotective
MEMANTINE

Neurotransmitters

- ▶ Acetylcholinesterase inhibitors



Aducanumab



RE·CODE WITH THE BREDESEN PROTOCOL

- Core Kit**
 - Daily Balance
 - Daily Multivitamin
 - Daily Omegas
 - Daily Probiotics
- 6 Subtype Formulas**
 - Type 1 Inflammatory
 - Type 1.5 Glycotoxic
 - Type 2 Atrophic
 - Type 3 Toxic
 - Type 4 Vascular
 - Type 5 Traumatic

Studies on AD

Gut microbiota & gut b - amyloid		

Caregiver training

Summary