HEALTHY AGING AND THE BRAIN

Christian White, DO
What is successful aging?

- Minimize risk of disease and disability
- Maintain physical and cognitive function
- Social and productive engagement

But what about…
- Optimism
- Effective coping styles
- Emotional well-being
Dementia and Depression

- What is Dementia?
- What is Depression?
Healthy brain?

In 2009, “cardiovascular risk factors in midlife are associated with dementia later in life”

In 2011, “about 54% of cases of Alzheimer’s disease in the US could have been prevented with attention to lifestyle changes…”

“We now understand that brain activity depends not just on genes, but on how you live your life…”
Exercise

- Miracle-Gro for aging brain cells
- In a 2011 study, exercise
  - Increases levels of BDNF in the hippocampus
  - Hippocampus size increased
  - Improvement in memory function
- Relieves depression and stress
- Fights off diabetes, high blood pressure, obesity, and clogged blood vessels
Your brain loves to socialize

- Being social builds a better brain
- A 2009 study found more frequent participation in social activities and a higher level of perceived social support = higher level of cognitive functioning
- Paramount for treatment of depression
“Use it or lose it”

- People with fewer years of education are at higher risk
- A 2009 study found that those who engaged in mentally stimulating activity were least apt to develop dementia
- Take up something “new”
Brain-Healthy Diet

- Food can have a profound influence on mental health and cognition

- A “brain-healthy diet” is one that
  - Reduces the risk of heart disease and diabetes
  - Encourages good blood flow to the brain
You are what you eat

- 2013 study reported, “higher glucose levels may be a risk factor for dementia, even among persons without diabetes”
- So...we need to get our sugars down...
- We’re eating too many saturated fats and trans fats
- “Bad” foods can suppress BDNF, promote inflammation, promote free radical, and cause insulin resistance
- Mediterranean diet (vegetables, fruits, olive oil, fish, low consumption of meat)
Dietary Guidelines for Alzheimer Prevention

- Minimize saturate fats and trans fats
- Staples are vegetables, fruits, and whole grains
- One ounce of nuts or seeds daily
- Reliable source of vitamin B12
- Multivitamins without iron and copper
- Avoid the use of products that contribute dietary aluminum
- Aerobic exercise equivalent to 40 minutes of brisk walking 3 x per week
Vitamins and antioxidants “may” be helpful

- There is some indications that Vitamins B, C, and E can help in lowering your risk of Alzheimer’s disease.

- Overall, however, findings do not consistently show habitual intakes of dietary antioxidants are associated with better cognitive performance or a reduced risk for dementia.
Stress and Sleep

- Under stress, your body produces cortisol...over time this can destroy brain cells

- Older veterans with Post-traumatic stress disorder (PTSD) are nearly twice as likely to develop dementia as veterans without it

- Skimping on sleep may trigger Alzheimer’s-type brain damage
Summary

- Physical Activity
- Surprise your brain
- Eat the right stuff
- Take care of yourself
Summary

We can help control our brain’s destiny!