Aging and the Brain ...

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I’m glad you’re here
Goals

Educate
Reduce worry
Increase confidence
Hurdles

Ageism
Anxiety
Pandemic Aftermath
What happens to brain power?
Thinking, remembering, doing math, making decisions, using words

Age-Associated Changes
- Slower
- More repetitions
- Knowledge improves

Mild Cognitive Impairment
- More decline doesn’t interfere with function but does with self-image

Dementia
- Enough decline to interfere with daily life

ADRD

MCI
Dementia
An ‘umbrella’ term used to describe a range of symptoms associated with cognitive impairment

Alzheimer’s
60%-80%

Vascular
10%-40%

Lewy Bodies
10%-25%

Frontotemporal
~10%
Hypothetical staging model of sporadic Alzheimer disease (AD)

1. Normal brain ageing
2.1 Early MCI
2.2 Late MCI
3.1 Mild dementia
3.2 Moderate dementia
3.3 Severe dementia

Reversion to normal cognitive function
Stable MCI
History of approaches to dementia care

1980: Nothing to do; Tragedy narrative

1990: Early adopters of lifestyle changes; Positive aging

2000: New drugs promise slowing progression of AD

2010: Health care reform; Focus on Wellness

2020: Technology; Disease-modifying drugs; Precision medicine

Living well with Dementia: Optimal Engagement
Dementia Drugs

Drugs that slow down getting worse

Cognition Enhancers
Donepezil, Memantine

Disease Modifyers: The MABs
Remove amyloid which is thought to play a role

Other co-occurring symptoms
Antidepressants, Apathy
Monoclonal antibody therapies:

- Aducanumab (Aduhelm)
- Lecanemab (Leqembi)
- Donanemab

Based on amyloid hypothesis
Act like the body’s immune system
Very early stages only
Here’s what you can do!
To stay healthy
To reduce risk
To live well with dementia
Exercise your body

Exercise increases
Brain connections

Best way to...
- Improve learning and memory
- Protect from brain cells from dying
- Lift spirits and improve depression

Reduces stress hormones

Helps blood flow

BOTTOM LINE:
150 min/week (30 min/day)
Aerobic (heart rate up) activity

14 interventions
Jl of Neurology 2017
Exercise (and rest) your brain

Challenging Mental Activity
- Creative arts, new skills, lifelong learning

Sleep
- 7-9 hours/night

Stress Reduction
- Meditation, Mindfulness, Prayer
- 12-20 minutes/day
- Natural world
“That which is used, develops,
that which is not, wasteth away”

Hippocrates 460-337 (B.C.)
Exercise your spirit!

Friends

Purpose
Eat a Healthy Diet/Stay hydrated

- Mediterranean
- DASH
- MIND
**Eat a Healthy Diet**

<table>
<thead>
<tr>
<th>Focus on</th>
<th>vegetables, fruits, nuts, seeds, legumes, potatoes, whole grains, herbs, spices, fish, seafood, and extra virgin olive oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low to moderate consumption</td>
<td>poultry, eggs, cheese, yogurt, red wine</td>
</tr>
<tr>
<td>Limit or avoid</td>
<td>red meat, sugar-sweetened beverages, added sugars, processed meat, refined grains, other highly processed foods, beers, and liqors</td>
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</tbody>
</table>
Paradigm Shift: From cure to chronic disease management and living well
Technology helps balance safety with greater independence.
Where to start?

“Older individuals with more positive self-perceptions of aging outlived those with less positive self-perceptions of aging by 7 ½ years”

Attitude Matters

01 Take a Personal Inventory

02 Schedule an annual Wellness visit

03 Ask for a cognitive screen

04 Choose one new activity
“To get back my youth I would do anything in the world, except take exercise, get up early, or be respectable”

The Picture of Dorian Gray, 1891
Thank you for your attention

Let’s chat