Today’s Road Map

- “Normal” Cognitive Changes in Aging
- Research on Cognitive Training
- Practical Advice
- Ideas for Cognitive Engagement
Cognitive Aging - What’s Normal, What’s Not

Normal Aging: Everyone experiences slight cognitive changes during aging

- Silent phase: brain changes without measurable symptoms
- Individual may notice changes, but not detectable on tests
- “A stage where the patient knows, but the doctor doesn’t”

Preclinical

- Cognitive changes are of concern to individual and/or family
- One or more cognitive domains impaired significantly
- Preserved activities of daily living

Mild

Moderate

Moderately Severe

Severe

Dementia: Cognitive impairment severe enough to interfere with everyday abilities
Cognitive Reserve Hypothesis

- People with Higher Reserve:
  - Tend to perform better on memory tests in the absence of AD pathology
  - Performance declines later because they can tolerate more pathology before it affects daily functioning

Stern, 2012, The Lancet
Neuroplasticity is the brain’s ability to form and reorganize connections. Addition of new neurons later in life may enhance new memories as those new neurons are more ‘plastic’ and can modify their connections and store memories. Cognitive Training = program designed to teach strategies and provide guided practice to improve a specific cognitive domain.
ACTIVE Trial - 10 year outcomes (Rebok et al., 2014)
Research on Cognitive Training

Training one cognitive domain does not necessarily improve other domains
Ex: Memory training does not help processing speed

You can improve an ability by practicing... to a point
Greater similarity of training to daily life skill = most success
Less impact with higher cognitive impairment

More is not necessarily better
Variety, novelty, level of engagement are important
“Brain Training” Programs

- Most commercial products do not meet research definition for ‘cognitive training’
  - Low generalizability. Ex: Daily Sudoku will make you better at Sudoku
- Inconsistent evidence of cognitive improvement
- Limited generalizability to everyday tasks
Never Too Old to Learn

Johns Hopkins University Study (2019)
• Older adults asked to take 3 classes
  • Spanish, drawing, music composition
  • 3 months long
• Learning multiple skills simultaneously increased cognitive abilities in older adults after 6 weeks to levels similar to middle-aged adults, 30 years younger

Leanos et al., 2019
• Myth 1: You are born with all the neurons your brain will ever have
  • We are only beginning to understand how our brains change over time
• Myth 2: Dementia is inevitable. It’s a normal part of aging.
  • There are normal age-related changes to cognition, but these are different than what is seen in dementia
• Myth 3: You can’t teach an old dog new tricks
  • You sure can!
Practical Advice

• Seek out new activities
• Re-engage in something you used to enjoy
• Open your mind and be flexible
• There is no ‘right’ or ‘wrong’ activity to do

• You are more likely to stick with something that you enjoy!
• Positive feedback from others keeps you motivated and accountable
• Quality over quantity
Lifelong Learning

• Classes in the community
  • UW Osher Lifelong Learning Institute
  • Seattle Community Colleges: Central, North, South
  • Seattle Parks and Recreation: Lifelong Recreation programs
Lifelong Learning - Online

- Free courses in many subjects
- Taught by university professors
- Coursera
- edX
- Harvard University
Embrace Your Hobbies and Strengths

• Challenge your brain with something different
• Modify a long-standing hobby
  • Like to read non-fiction? Try a Sci-Fi short story or poetry
  • Enjoy watercolor? Try pencil sketching
  • Avid knitter? Consider cross-stitch or learn to make your own patterns
• Change up your puzzle habit
  • If you like crosswords, try Sudoku
Museum Virtual Tours

- NASA at Home - [Virtual Tours](#)
- American Museum of Natural History - [Online Exhibits](#)
- [Google Arts and Culture](#): online tours of art museums around the world
  - Musee d’Orsay (Paris), Van Gogh Museum (Amsterdam)
Online Library Resources

- E-Books, audio books, digital magazines
- Movies, TV series, music
- Genealogy research
- Podcasts by librarians: SPL and KCLS
- Online book clubs
- “Your Next Five“ curated book lists by librarians
- SilverKite online art classes for people 50+ via SPL or KCLS
Make it Social

• Improve accountability!
• Join a class with a friend
• Write letters or poems
• Teach a skill to a loved one - or learn one from them
• Play a new game with family or friends
• Conversation Starters: StoryCorps
• Consider volunteering opportunities (Volunteermatch.org)
Music and Concerts at Home

• Music can help foster reminiscence, conversation, and cognitive engagement

• Many online and streaming options during COVID-19

  • Seattle Symphony
  • Seattle Opera
  • Metropolitan Opera
  • Berlin Philharmonic
  • Billboard’s List of Online Music Events
  • NPR’s List of Online Concerts
  • Classical Music Streaming Links
Some Final Tips

• Start easy and work up
• Choose something that will fit into your schedule and is easily accessible
• Invite a friend or loved one along
• Try a cognitive and physical activity (pickleball, anyone?)
• Set achievable goals
• Be open minded
• Be kind to yourself
Virtual Community Wellness Talks

4/3 - Dementia Caregiving in the Midst of Covid-19: Health, Safety and Communication

4/8 - Staying Connected During Social and Physical Distancing

4/10 - Staying Active while Staying Home

4/15 - Mindfulness Meditation for Stress Management

4/17 - Info-Savvy: Staying Sane in the Era of Information Overload

4/22 - Mind over Matter: Cognitively-stimulating activities for everyone


4/29 - Enjoying the Arts from Home

5/1 - Virtual Nature for the Soul

5/6 - Food for Thought: Brain-Healthy Meals

http://depts.washington.edu/mbwc/events/community-events-programs