

Memory, aging and heart health



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Dementia

Dementia is an umbrella term for loss of memory, language, problem-solving and other thinking abilities that interfere with activities of daily living.

- Alzheimer's disease
- Cerebrovascular disease
- Frontotemporal degeneration
- Hippocampal sclerosis
- Lewy body disease
- Mixed pathologies
- Parkinson's disease



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(What is Dementia, 2024)

Dementia

- ▶ The number of Americans living with dementia is growing. Nearly 7 million Americans have Alzheimer's. This is estimated to grow to 13 million by 2050.
- ▶ Approximately 10% of Americans over the age of 65 have Alzheimer's. With 2/3 being women.
- ▶ Alzheimer's disease is the 5th leading cause of death among people age 65 or older in 2021.

(Alzheimer's disease facts and figures, 2024)



10 signs and symptoms of dementia

- 1. Memory loss that disrupts daily life**
- 2. Challenges in planning or solving problems**

(10 early signs and symptoms of Alzheimer's and dementia, 2024)



10 signs and symptoms of dementia

3. Difficulty completing familiar tasks

4. Confusion with time or place

(10 early signs and symptoms of Alzheimer's and dementia, 2024)



10 signs and symptoms of dementia

5. Trouble understanding visual images and spatial relationships

6. New problems with words in speaking or writing

(10 early signs and symptoms of Alzheimer's and dementia, 2024)



10 signs and symptoms of dementia

7. Misplacing things and losing the ability to retrace steps

8. Decreased or poor judgment

(10 early signs and symptoms of Alzheimer's and dementia, 2024)



10 signs and symptoms of dementia

9. Withdrawal from work or social activities

10. Changes in mood and personality

(10 early signs and symptoms of Alzheimer's and dementia, 2024)



What's next?

- ▶ Schedule an appointment with your primary care provider
- ▶ How to prepare for your appointment?
 - List of changes in your health, especially regarding mood, memory and behaviors
 - List of current and past medical problems and family history
 - Current medications including over-the-counter medications

(How is Alzheimer's disease diagnosed, 2024)



10 ways to think about your brain health

- ▶ Break a sweat
- ▶ Hit the books
- ▶ Butt out
- ▶ Follow your heart
- ▶ Heads up
- ▶ Fuel up right
- ▶ Catch some ZZZ's
- ▶ Take care of your mental health
- ▶ Stump yourself
- ▶ Buddy up



(What do we know about preventing Alzheimer's disease, 2020).

General Points – Cardio Vascular Disease

- CVD still the leading cause of death in US
- Around 92 million Americans living with CVD
- Cost on healthcare of around \$200 billion
- Affecting men and women equally
- Risks Factors: modifiable vs. non-modifiable
- Easy 10 steps to start the change



General Points – Cardio Vascular Disease

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Stroke Stats

1 stroke every 40 seconds

1 of every 21 death in US is due to Stroke.

1 death from stroke every 3.17 minutes (436/day)

5th cause of death in US

800,000 new and recurrent strokes each year in US

In 2020- 7.08 millions death due to stroke worldwide

- 3.48 millions due to ischemic
- 3.6 millions due to hemorrhagic

Mortality

- 7.6% 30 days
- 16-23% 90 days



How Complex is the Human Brain?

85 billion

The number of neurons
in the adult human brain

86 billion

The number of other
(non-neronal) cells in the brain

By comparison, there
are about 10^{21} stars in
the observable universe

10,000's to 100,000's

The number of incoming connections
into a neuron from other neurons

$10^{16} = 10$ quandrillion
(‘1’ followed by 16 ‘0’s)

The number total connections
(synapses) in the entire brain



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	Brain Cells Lost	Number of Years the Brain Ages
Per Stroke	1.2 billion	36 yrs
Per Hour	120 million	3.6 yrs
Per Minute	1.9 million	3.1 weeks
Per Second	32,000	8.7 hrs

Reasons for lack of treatment:

Patient's inability to recognize stroke symptoms

40% of stroke patients can't name a single sign or symptom of stroke or stroke risk factor.

75% of stroke patients misinterpret their symptoms

86% of patients believe that their symptoms aren't serious enough to seek urgent care

Physician's lack of experience with stroke treatment and therefore reluctance to "risk" treatment

Lack of organized delivery of care in many medical centers throughout the country.



BEFAST to stop stroke in its tracks

If you think someone is having a stroke, BE FAST and do these simple tests:



BALANCE

Is the person losing his/her coordination or balance? Is he/she having trouble walking?



EYES

Is the person having trouble seeing out of one or both eyes?



FACE

Ask the person to smile. Does one side of the face droop?



ARMS

Ask the person to raise both arms. Does one arm drift down?



SPEECH

Ask the person to repeat a sentence. Are the words slurred? Is he/she having trouble getting words out?



TIME

If the person shows any of these symptoms, time is important. Call 911 and get to the hospital fast. Brain cells

Easy Steps to Start the Change

- **Step 1 - Add more plants to your menu**
 - Research shows people who eat plant-based diets less likely to develop heart disease
 - Fruits & vegetables work their magic in many ways.
 - Help reduce chronic, low level inflammation, which has been linked to CVD
 - Aim big: 5 cups of fruits & vegetables a day
 - Add more to your plate



Easy Steps to Start the Change

- **Step 2 - Watch Animal Fat**

- Animal Fat: Linked to high cholesterol—Heart Disease
- Add monounsaturated fats: olive oil, avocado and nuts
- Add polyunsaturated fats: fish- salmon, sardines
- Key point: Moderation
 - Keep portions small
 - easy on sugars, processed carbs and butter
 - add more vegetables and fruits



Easy Steps to Start the Change

- **Step 4 - Don't smoke**

- Studies showed that even 1 single cigarette is enough to cause some inflammatory process that can lead to CAD
- Smoking increase risks for cancer, stroke, CAD, CVD
- Never too late to quit if you smoke
- Heart disease risk goes down around 50% in the first year after quitting smoking -- and becomes equal to a non smoker after 10 years
- Cost saving- \$6.11 average cost pack of cigarettes.



Easy Steps to Start the Change

- **Step 5 - Drink alcohol in moderation**
 - Still unclear evidence about how much is good
 - Women- 1 hard drink / day – 2 ounces
 - Men- 2 hard drinks /day



Easy Steps to Start the Change



- **Step 6 - Exercise often**

- Evidence is clear – exercise is essential for heart
- Studies showed that can even counteract genetic risk
- AHA:
 - 150 minutes moderate activity a week
 - Studies showed that 30-60 minutes/day is good for the heart.
 - Extreme exercises can be dangerous and add some harm
 - 10 K steps / day – 5 miles/day- burn around 3,500cal/week

Easy Steps to Start the Change

- **Step 7- Stand up for your health**
 - Prolonged sitting is terrible for the body
 - Get up and move frequently
 - 10 minutes spurts of exercises throughout the day can decrease risks for CAD.
 - People are more productive



Easy Steps to Start the Change

- **Step 8 - Watch weight gain**

- Obesity is a risk factor for CAD/CVD and other health issues.
- BMI -
- DASH Diet- Mediterranean diet
- Schedule / Routine
 - 3 times a day – balanced diet plus 1-2 snacks during day
 - Time carbs for early in the day, before your most active hours.



Easy Steps to Start the Change

- **Step 9 - Tame Stress**

- Studies showed stress can increase risks for CAD
- 2.5 times – similar to smoking or diabetes
- Fight – or – flight mode – increase inflammation process - increase BP
- AHA in 2017- Meditation as a recommended approved therapy/treatment for good cardiac health



Easy Steps to Start the Change

- **Step 10 - Nurture close relationships**

- People who are socially isolated and lonely are more likely to have AMI or stroke
- People with social networks - healthy and better cardiac outcomes
- Relationships may actually matter more to your heart than your cholesterol
- Love, it seems, really is good for the heart.





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References

- ▶ Alzheimer's Association. (2024). *What is dementia?* Retrieved from [What is Dementia? Symptoms, Causes & Treatment | alz.org](#)
- ▶ Alzheimer's Association. (2024). *Alzheimer's disease facts and figures.* Retrieved from [Alzheimer's Association 2024 Alzheimer's Disease Facts and Figures](#)
- ▶ Alzheimer's Association. (2024). *10 early signs and symptoms of Alzheimer's and dementia.* Retrieved from [10 Early Signs and Symptoms of Alzheimer's & Dementia | alz.org](#)
- ▶ Alzheimer's Association. (2024). *How is Alzheimer's disease diagnosed?* Retrieved from [Medical Tests for Diagnosing Alzheimer's & Dementia | alz.org](#)
- ▶ Alzheimer's Association. (2024). *What do we know about preventing Alzheimer's disease?* Retrieved from [What Do We Know About Preventing Alzheimer's Disease? \(10 Ways to Love Your Brain\)](#)



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