The Latest Insights Into Keeping Your Brain Young & Lowering Risk For Dementia

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Sudoku or Puzzles??

Brain Games??
The 8 Surprising Things That Will Really Make A Difference
How Old Is Your Brain?
How Can You Tell A Tree’s Age?
How Can You Tell A Tree’s Age?
Brain age predicts mortality. Molecular Psychiatry, 2017;
What Is Dementia?
Dementia Is Like A Wave....
1/3 of All Dementia Is Preventable

• 47 million people have dementia worldwide

• 115 million by 2050.

• What are key factors in preventing dementia and brain aging?

If Someone Is Having Memory Issues
Do You Have Sleep Apnea?

Ricardo S. Osorio, Tyler Gumb, Elizabeth Pirraglia, Andrew W. Varga, Shou-En Lu, Jason Lim, Margaret E. Wohlleber, Emma L. Dacija, Viachaslau Koushyk, Lidia Glodzik, Lisa Mosconi, Indu Ayappa, David M. Rapoport, Mony J. De Leon. **Sleep-disordered breathing advances cognitive decline in the elderly.** *Neurology,* April 2015
How Are Sleep and Memory Related?

cottage / swiss / cake
cream / skate / water
show / life / row
What Happens In Your Brain When You Learn Something During The Day.....

Y. Wei, G. P. Krishnan, M. Bazhenov.

Synaptic Mechanisms of Memory Consolidation during Sleep Slow Oscillations.

Journal of Neuroscience, 2016; 36 (15)
Alzheimer’s Disease

• What is the difference between Alzheimer’s disease and dementia?
Think Of It This Way....
What Can Cause Dementia?

There are as many as 200 known causes of dementia, but most of these causes are very rare.
Why Is It Worth Knowing The Underlying Cause?
Approximately 20% of dementia is quickly treatable.
95% of what is known about Alzheimer’s has been discovered in the last 15 years
Brain Cells Are Like Factories
What Can Trash Interfere With?
New Insight:

When Does Your Brain Take Out The Trash?

But First, How Much Trash Do We Make?
Brain Wash

While you are sleeping your brain shrinks by 60% and squeezes toxins out of your brain cells and gets a wash!
Over The Counter Sleep Aids

Shelly L. Gray, Melissa L. Anderson, Sascha Dublin, Joseph T. Hanlon, Rebecca Hubbard, Rod Walker, Onchee Yu, Paul K. Crane, Eric B. Larson. Cumulative Use of Strong Anticholinergics and Incident Dementia. JAMA Internal Medicine, 2015;
DOI: 10.1001/jamainternmed.2014.7663
Scientists identify 'ground zero' for Alzheimer's disease

Exercise Your Brain & Learn New Things

• Challenging

• Something you enjoy!
Isolated and Loss of Social Contact
Can There Be Trash In The Brain and No Dementia?
What Do Microglia Do?

Cells known as microglia eat amyloid plaques and dying, tangle-ridden neurons.
1. Effectively treat diseases that cause inflammation.

2. Ask your personal Doctor about checking inflammation. (CRP markers)

3. What else?
Brush Your Teeth (Gingivitis)

- The bacteria produces a protein that destroys nerve cells in the brain, which in turn leads to loss of memory and ultimately, Alzheimer’s.

- Take home message?

Does Diet Matter?

Martha Clare Morris, Christy C. Tangney, Yamin Wang, Frank M. Sacks, David A. Bennett, Neelum T. Aggarwal. MIND diet associated with reduced incidence of Alzheimer’s disease. Alzheimer’s & Dementia, 2015
The Mind Diet

* The MIND diet lowered Alzheimer’s risk by about 35 percent for people who followed it moderately well and up to 53 percent for those who adhered to it rigorously.
All Things Heart Health
Impact Brain Aging.....

• 1. Blood Pressure
• 2. Obesity
• 3. Smoking

Have You Had This Happen?
What Does Hippocampus Do?
What is happening to your hippocampus???
Multi-tasking Can Be Multi-distracting
Keep Hippocampus Healthy and Make It Grow
The Most Detailed Study Ever Done On The Effect of Lifestyle on The Risk of Getting Dementia

• Researchers followed 2,235 individuals with initial ages between 45 and 59 years old—for 30 years.

• Reduced their risk for cognitive decline and dementia by a staggering 60%......
Approximately 30-40 Minutes Of Walking A Day Doesn’t Need To Done All At The Same Time
Stress and Nature:

A Couple Minutes of Green Time:

• Helps blood flow to the brain

• Helps sleep

• Helps balance immune system.

• How much exercise?

How Much Exercise?
What About Taking The Stairs?

Differences between chronological and brain age are related to education and self-reported physical activity. *Neurobiology of Aging,* 2016;
When Is A Good Time To Take Walks?
A Tip...

• Taking a 30 minute walk after meals lowers bump in blood sugar by 50%.
Unmanaged Diabetes increases a person's risk of Alzheimer's by 65 percent.
What If Diabetes Is Treated? What Happens To AD Risk?

We Have This Data

1260 people from across Finland, aged 60-77 years and at risk for dementia.

What was the intervention?
FINGER Intervention Results

• Overall test scores in the intervention group were **25% higher** than in the control group.

• For executive functioning scores were **83% higher** in the intervention group.

• Processing speed was **150% higher**.

• Weill – Cornell Study.

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Adopting healthy lifestyle factors reduced risk of Alzheimer’s dementia by 60% compared to adopting none or only one factor.

What About Genetics?

Chicago Health and Aging Project and the Rush Memory and Aging Project
When Does Trash Form In The Brain?
Dementia Is Like A Wave....
The Roots of Dementia?
Redefining....
Can We Reverse Aging In The Brain At Any Age?

- Most “Bang For Your Buck” Activities
- Can we beat exercise???
Dancing vs Treadmill/Stationary Bike

• Key point........

• Why dancing?

• At any age we can make our brain younger.

The Best Things You Can Do For Your Brain
We Now Have 8 Major Tips

• Sleep
• Be Socially Engaged and Learn New Things
• Keep Inflammation Low
• Manage Stress
• MIND Diet
• Moderate Exercise/Walking
• Treat Diabetes
• Take Care of The Heart
These 4 Make A Big Difference

• Sleep

• Get Regular Physicals (Heart, Inflammation, Diabetes)

• Have Fun Mentally and Physically & Learn New Things

• Eat Real Food