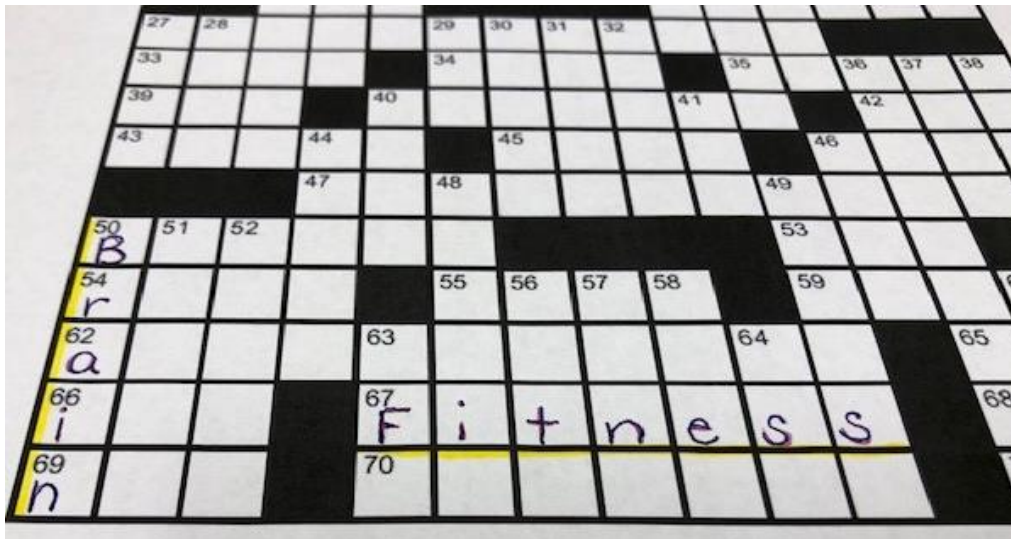




Brain Fitness Program

Pillar 1



Engage Your Brain

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A free membership program for people 55 and better, promoting healthy aging through education, social activities and volunteerism.

Welcome to the Celebrate Seniority at-home Brain Fitness program.

This program is based on the six pillars of brain health and will help support those interested in understanding their brain health and challenging themselves.

Each packet will focus on one of the following pillars of brain health (modeled after Healthy Brains by Cleveland Clinic):

1. Engage your brain
2. Connect with others
3. Adopt a healthy diet
4. Exercise regularly
5. Get refreshing sleep
6. Reduce stress and maintain a healthy blood pressure level

Each packet will include stimulating puzzles with answers, activities, pillar specific information and additional resources. To download additional packets and watch related videos, visit multicare.org/volunteers/celebrate-seniority/.

Brain Fitness Team:

Celebrateseniority@multicare.org

Deborah Gurney (253) 697-7386

Alissa Rooks (253) 697-7389

Brain Health Pillar 1: Engage Your Brain

The Main Idea - your brain needs mental exercise to be fit, just like muscles. This means doing something challenging and different than your normal routine. To help your brain create new neuron paths, you need to work at exercising your brain for eight hours a week for six weeks with increased difficulty.

In this packet there are puzzles and other suggestions to engage your brain.

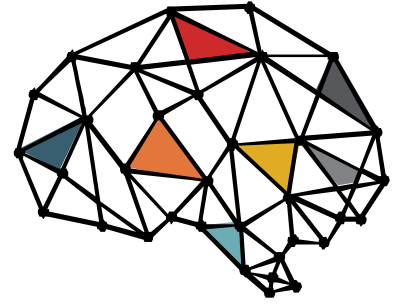
A few examples of daily activities that can challenge our brain include:

- Drive a new route to common destinations
- Brush your teeth with your non-dominant hand
- Memorize something you do not have memorized
- Wear your watch upside down

A few examples of challenging workouts for your brain beyond puzzles:

- Learn about bird identification – We suggest looking up online (and smart phone app) EBird.com. You can share your sightings, learn information attracting birds and much more.
- Learn to crochet or knit – Always ask a friend, but we have learned by watching YouTube videos.
- Learn a new line dance – A fun easy source online is LearntoDance.com
- Learn a new foreign language or refresh an old one you knew long ago.

Debunking Myths About the Aging Brain



7 FACTS ABOUT YOUR BRAIN

MYTH

FACT

1 You are born with all the neurons that your brain will ever have.

Neurons are continually created throughout your life in areas of the brain through a process called neurogenesis.

2 You can't learn new things when you are old.

Learning can happen at any age when you get involved with cognitively stimulating activities like meeting new people or trying new hobbies.

3 We don't really know how the brain works.

Researchers have made great strides in understanding the brain in recent years. The field of neuroscience is at the cusp of new and exciting breakthroughs.

4 Dementia is an inevitable consequence of old age.

Dementia is not a normal part of aging. There is a big difference between typical age-related changes in the brain and those that are caused by disease.

5 Only young people can learn a new language.

While it may seem simpler for kids—with simpler sentence structures and a lack of self-consciousness—your age isn't a limitation in learning a new language.

6 Older people are doomed to forget things.

Remembering details is easier for some people than others, but this is true of all ages. There are strategies to help remember names, facts, etc. and paying closer attention can often help you remember better.

7 A person who has memory training never forgets.

Keep practicing your memory skills. "Use it or lose it" applies to memory training in the same way it applies to maintaining your physical health.

Healthy Aging Requires You To Challenge Your Brain

Don't let age limit you. You have the ability to change your brain at any age.

The evidence today regarding the benefits of what most people consider "brain games" is weak to non-existent.

TIP 1

Find new ways to stimulate your brain and challenge the way you think.



TIP 2

Choose activities that involve both mental engagement and physical exercise.



TIP 3

Seek out mentally-stimulating activities that incorporate social engagement and greater purpose, such as volunteering or mentoring.



The GCBH defines cognitively-stimulating activities as mentally-engaging activities or exercises that challenge a person's ability to think.



Trail Categories

Fill in the boxes with words or terms that begin with each of the letters in TRAIL. Add your own category in the last row.

	T	R	A	I	L
Two-Syllable Words					
Plants					
Things Associated with a Hotel					
4-Letter Words					
Verbs					
Your Choice					

Look at Page # 12 for potential answers.

Sudoku

The Rules of Sudoku

1. Every row, column, and 3x3 box must contain each number (1 to 9) exactly once.
2. The sum of all numbers in any 3x3 box, row, or column must match the small number printed in its corner. For traditional Sudoku puzzles featuring the numbers 1 to 9, this sum is equal to 45.

This is an important point to review as it isn't uncommon for inexperienced players to get frustrated and to abandon the techniques we will lay out below. Don't do it! In order to solve Sudoku puzzles reliably, you must be disciplined, focused, and patient.

How to Solve Sudoku Puzzles

There are three main sudoku solving techniques that can be used to solve a Sudoku puzzle; Counting, Crosshatching and Penciling In. These techniques are simple, straightforward, reliable, and sufficient in solving most standard Sudoku puzzles.

It is important to understand that all Sudoku puzzles require a mathematical approach. Except for in the case of the simplest puzzles, players will have to visit each 3x3 box more than one time. Fortunately, each successive application of the solution techniques yields more completed cells.

1) Counting

In counting you simply count 1-9 in a row, column and region that connects to one cell. If there is just one number missing, then that's what should be in the cell.

2) Crosshatching

+				2	8	3		
	8		1		4			2
7		6		8		5		
1				7		5		
2	7		5				1	9
	3		9	4				6
		8		9		7		5
3			8		6		9	
	4	2	7					3

To begin with we will want to use the Crosshatching technique. With this technique, a player considers a single nonet (a single 3x3 square) and attempts to fill in empty cells based on the fact that a number can only appear once in any row or column.

By looking across each row and down each column, we can determine if a number can or cannot go in a cell. Let's look at an example to help illustrate the Crosshatching technique.

3) Pencil In

	4		8	2		1	
	3					2	
2				7			4
7	1	3 8		4			9 2
6	5 8	3 8					1
4	2	8 9		8			3 6
1				5			3
	9						4
	8		6		4		7

Pencil in possible solutions for empty squares becomes crucial as sudoku puzzles get harder. But you're not guessing when you pencil in. You're simply listing the possible solutions.

Now you can try one of these techniques on the Sudoku puzzle on the next page.

Sudoku

Fill in the grid so that all nine columns down, all nine rows across, and all nine 3-by-3 boxes contain the numbers 1 through 9.
A number appears in each column, row, or box only once.

	4	5		1	7		2	
	2		3			1		
		1				3	7	4
		9			3	5	8	
1		2	5	8		4	3	7
		8	7		6	9		
	1		4	7	2			5
		7				2		
	5	4	6					1



Find the answers on Page # 13

Try This

Standing Balance Ball Toss

Best for hand-eye coordination.

Start by keeping both feet on the floor. (For a challenge balance on one leg with the opposite leg lifted at 90 degrees at the hip and knee, like taking a step up.)

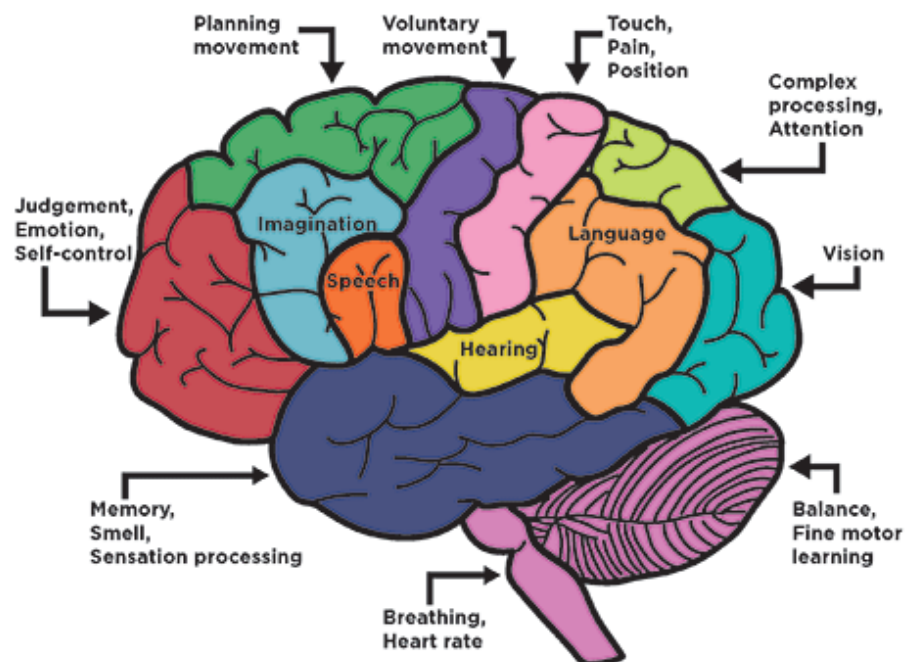
Use a tennis ball, Pilates ball or a soft medicine ball and toss the ball into the opposite hand. The eyes should follow the ball. Then switch legs and toss the ball to your opposite hand.

Repeat a total of 10 times, daily.

Why Try This?

When you perform even a simple movement, it involves a huge amount of activity in the brain. Even something as simple as catching a ball requires you to plan the movement, decide to act, calculate speed, weight and trajectory, identify the position of your body in space and more – all in a fraction of a second.

The **cerebellum** is at the back of the brain, below the cerebrum. It controls balance, movement, and coordination (how your muscles work together). Because of your cerebellum, you can stand upright, keep your balance, and move around.



Word Web

Use the letters in the spider web to create words.
Each word must contain the letter in the center of the web.



Find 1 seven-lettered word

Find 3 five-lettered words

Find 8 three-lettered words

Find 1 six-lettered word

Find 7 four-lettered words

Trail Categories

(possible answers)

	T	R	A	I	L
Two-Syllable Words	thirteen Thursday tiger	river rainbow rabbit	about again amber	inlet iron Irish	loving lady London
Plants	tulip tobacco trillium	rose radish rhododendron	amaryllis aloe vera azalea	iris ivy impatiens	lily lavender larkspur
Things Associated with a Hotel	towel twin bed table	room reservation restaurant	amenities armchair alarm	indoor pool ice machine internet	lobby linens luggage
4-Letter Words	task tire tuba	room root raid	arid aqua also	icon into item	list lead loop
Verbs	throw tickle trim	reach remove ride	ask arrange answer	inspire ignore itch	lock leave laugh
Your Choice					

Sudoku

(solution)

3	4	5	8	1	7	6	2	9
7	2	6	3	9	4	1	5	8
8	9	1	2	6	5	3	7	4
4	7	9	1	2	3	5	8	6
1	6	2	5	8	9	4	3	7
5	3	8	7	4	6	9	1	2
9	1	3	4	7	2	8	6	5
6	8	7	9	5	1	2	4	3
2	5	4	6	3	8	7	9	1

Word Web

(solution)



Find 1 seven-lettered word

tractor

Find 1 six-lettered word

carrot

Find 3 five-lettered words

actor

tract

tarot

Find 7 four-lettered words

cart

taro

coat

taco

tart

roar

tact

Find 8 three-lettered words

act

oat

tar

arc

car

tat

art

rat

Give yourself a bonus for finding any words that are not on the list. Email your core, first name, and city to celebrateseniority@multicare.org – top 10 finishers will be published.