Exercise your mind with these puzzles and you may help your brain STAY SHARP!
Staying Sharp: Tenets of Successful Brain Aging

We all know people who stay sharp as a tack well into old age, or who seem to blossom creatively late in life. It turns out that these “successful agers” seem to share some common characteristics. **Below are some key words related to aging successfully.** For more information please read the “Staying Sharp” booklet *Successful Aging and Your Brain* from the Dana Alliance for Brain Initiatives, www.dana.org.

Words may appear in all directions, including diagonally and backwards.

- aerobic
- mental stimulation
- learning
- cell network
- community
- exercise
- function
- education
- cards
- neural reserve
- children
- puzzles
- volunteer
- think
- plasticity
- friends
- playing games
- dancing
- novelty
- lifestyle
- diet
- chess
- reading
- family
- network
- sleep
- skills
- practice
- sharp
- laughter
- mental
Staying Sharp: Learning as we Age

From the day we are born our brain is primed for learning, ready to capture the experiences of our lives and encode them into its web of nerve connection. Below are some key words related to how the learning and memory happen within the brain. For more information please read the “Staying Sharp” booklet Successful Aging and Your Brain from the Dana Alliance for Brain Initiatives, www.dana.org.

Words may appear in all directions, including diagonally and backwards.

plasticity  successful aging  judgment
cognition  multitasking  engage
teaching  synapse  connection
learning  lobe  information
memory  education  thought
axons  social  action
neurotransmitters  experience  myelination
hippocampus  ability  focus
neurogenesis  attention  conceptual
wisdom  language  challenge
self efficacy  executive function
amygdala
Staying Sharp: Here's to your vascular health!

Eating well and controlling vascular risk factors such as blood pressure, cholesterol, and stress may contribute to the maintenance of cognitive function throughout life. **Below are some key words related to diet, exercise, and vascular health.** For more information please read the “Staying Sharp” booklet *Successful Aging and Your Brain* from the Dana Alliance for Brain Initiatives, www.dana.org.

Words may appear in all directions, including diagonally and backwards.
Staying Sharp: The Aging Brain

Brain disorders and diseases are among the most feared medical problems. But becoming well-informed about serious neurological conditions that may develop can help allay those fears—and can help you respond if you or someone you love develops one. **Below are some key words related to late-life brain disorders.** For more information please read the “Staying Sharp” booklet *Successful Aging and Your Brain* from the Dana Alliance for Brain Initiatives, and visit the Dana Foundation at www.dana.org.

Words may appear in all directions, including diagonally and backwards.

Puzzle by the Dana Alliance for Brain Initiatives

dementia  Alzheimer’s  vascular
memory loss  genes  Tau tangles  treatments  neuroimaging  diagnostic test  amyloid plaque  caregiving

MRI  brain attack  depression  hypertension  ischemic stroke  Parkinson’s  neurotransmitters  warning signs  medication  prevention  chronic pain

aphasia  stress  support group  therapy  symptoms  tremor  biomarker  arthritis  painkiller
Get moving! jumble

Unscramble the words below to see what regular exercise can do for your body (hint: for help for some answers, and for more information about exercise and your brain, see the “Staying Sharp” booklet Successful Aging and Your Brain, www.dana.org). Once you figure out the answers, unscramble the highlighted letters to answer the riddle (two letters have been filled in for you):

“What happened to the mollusk that went to the gym?”

“It _______  ___  _________ !”

Regular exercise can...

<table>
<thead>
<tr>
<th>Prevent…</th>
<th>BIOTYSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote…</td>
<td>SOENIEGESNUR</td>
</tr>
<tr>
<td>Boost…</td>
<td>DOMO</td>
</tr>
<tr>
<td>Slow…</td>
<td>NEBO SOLS</td>
</tr>
<tr>
<td>Decease risk of some…</td>
<td>SIAEDSES</td>
</tr>
<tr>
<td>Increase…</td>
<td>REGNYE</td>
</tr>
<tr>
<td>Combat high blood…</td>
<td>PERURESS</td>
</tr>
<tr>
<td>Improve overall…</td>
<td>HHTELA</td>
</tr>
</tbody>
</table>

U |   |   |   |

Puzzle by the Dana Alliance for Brain Initiatives
Keep Your Memory Sharp jumble

The following jumbled words are skills you can practice to help keep your memory sharp (hint: we’ve underlined the first letter of each word for you). Once you figure out the answers, unscramble the highlighted letters to answer the riddle (one letter has been filled in for you):

“Why do reptiles have such good memories?”

“Because they have _______ _________ !”

What may seem like a faltering memory may in fact be a decline in the rate at which we learn and store new information. Visit www.dana.org for more information on memory, and practice these memory skills to enhance learning and make remembering easier:

- XEARL
- RENNECATCTO
- COSEFU
- LSWO NOWD
- NAQZIGRE
- WITRE
- PETREA
- IUZAVISLE
- ICESTAASO

Puzzle by the Dana Alliance for Brain Initiatives
Brain Quote Cryptograms

The following cryptograms are all quotes about the brain, with the names of their authors. Some of the letters have been filled in to give you a head start. See how many you can solve! Visit www.dana.org for more information on the brain and neuroscience.

We're Not in Kansas Anymore

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 4 |   |   |   |   |   |   |   | 18| 19| 25|   |   |   |   |   |   |   |   | 10| 14| 9  |   |   |   |   |   |

A Y H A 
4 8 3 7 9 19 13 4 3 12 3 15 13 5 17 6 4 1 17 19 12 8 18
W H L Y H U G H W U Y
14 19 12 25 13 7 9 1 19 2 10 18 19 1 5 14 13 6 13 15 10 5 9
H A H G L Y H A A A
19 4 1 17 19 12 8 18 12 22 12 2 8 25 9 19 4 3 4 15 6 4 12 8
H A W
1 19 13 5 17 4 6 13 17 6 2 14

The Sci-Fi Brain

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 7 |   |   |   |   |   |   |   | 10| 9 22| 8  |   |   |   |   |   |   |   |   | 1  |20| 19 |   |   |   |   |   |

H H U M I , H I H
17 9 16 9 1 8 3 12 6 21 3 22 12 17 9 16 22 15 17 9 16
M C M I C
8 23 15 17 7 23 8 5 25 22 7 3 17 16 26 23 21 2 3 12 22 11 3 17 22 23 12
F M H W W
23 10 8 3 17 17 16 21 17 9 3 17 19 16 4 12 23 19 12 16 15 3 7 3 15 22 8 23 20 

Puzzle by the Dana Alliance for Brain Initiatives
The Poetry of the Brain

Beam Me Up!
Oh, the places you'll go!

Renaissance Brain
A Simple Problem?

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 12| 13| 14| 10| 2 | 21| 20| 5 |

\[
\begin{array}{cccccccccc}
F & H & H & N & B & N & W \\
24 & 14 & 22 & 10 & 1 & 10 & 15 & 7 & 2 & 12 & 19 & 7 & 24 & 2 & 5 & 1 & 19 & 1 \\
S & S & P & H & W & C \\
N & S & N & , & W & W & B \\
S & S & P & H & W & C & N ' . \\
S & N & . & P & G & H \\
1 & 15 & 1 & 19 & 20 & 25 & 2 & 15 & 21 & 11 & 4 & 10 \\
\end{array}
\]

An Ancient view?

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 17| 15| 3 | 7 | 6 | 13 |

\[
\begin{array}{cccccccccc}
M & G & \\
R & , & , & F & R & M \\
L & , & R & R & P & L \\
20 & 23 & 3 & 22 & 8 & 13 & 5 & 21 & 18 & 20 & 12 & 13 & 6 & 3 & 18 & 8 & 21 & 12 & 13 & 18 & 21 \\
L & R & , & , & L & G & R \\
L & R & R & , & P \\
G & R & F & , & , & R \\
15 & 13 & 5 & 18 & 17 & 21 & 8 & 23 & 19 & 9 & 18 & 8 & 13 & 21 \\
P & P & R \\
2 & 5 & 6 & 6 & 20 & 16 & 13 & 8 & 9 & 18 & 21 \\
\end{array}
\]
Brain Diseases and Disorders

Nearly one in five Americans is afflicted with a brain disorder – conditions that range from learning disabilities to depression to traumatic brain injury. Did you know that all of the following diseases and disorders are related to the brain? See how many you can find, and then visit the Dana Foundation at www.dana.org to learn more.

Words may appear in all directions, including diagonally and backwards.

Addition
Alzheimer’s
Anxiety
Ataxia
Autism
Birth defects
Blindness
Cerebral Palsy
Coma
Deafness
Depression
Dyslexia
Dystonia
Eating disorders
Epilepsy
Lou Gehrig’s Disease
Mental illness
Migraine
Muscular Dystrophy
Pain
Panic disorder
Paralysis
Parkinson’s
Schizophrenia
Shingles
Sleep disorders
Spina Bifida
Spinal Cord Injury
Stroke
Tourette syndrome

Puzzle by the Dana Alliance for Brain Initiatives
Words in a word puzzle

Neuroscience is the study of the brain and nervous system, including their structure, function, and disorders. How many four- and five-letter common English words (no proper names or abbreviations) can you find in the word NEUROSCIENCE? We found 49 four letter words and 53 five letter words. See how many you can find, and then check your words against ours in the answer key. Good luck! Visit www.dana.org for more information about the brain and neuroscience.

NEUROSCIENCE

Four letter words: _____________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

How many did you find? _________

Five letter words: _____________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

___________ _____________ _____________ _____________

How many did you find? _________

If you’re ready for a bigger challenge, see how many six letter words you can find!
Brain-y Crossword

Use the Dana Alliance’s ‘Mindboggling’ booklet series and “Q&A: Answering Your Questions About Brain Research,” available at www.dana.org, to solve this BRAIN-Y crossword puzzle!

**ACROSS**

4. One of the most prevalent neurodegenerative disorders that greatly reduces a person’s memory.
5. The general name for the chemicals that are released by one neuron and taken up by another.
6. The branches of a neuron on which information is usually received.
7. You have more than 100 _______ neurons. (spell out the number)
8. An area of the brain located deep inside the brain and involved in memory.
13. What does the “I” in MRI stand for?
14. The part of the brain that connects directly with the spinal cord and is responsible for some of the automatic functions of the body.

**DOWN**

1. The tennis ball-sized area at the back of the brain responsible for balance and movement, as well as some types of memory.
2. The nerve cells in the brain.
3. The long, tail-like branch that extends from a neuron’s cell body and transmits information.
5. The exploration of ethical issues surrounding advances in neuroscience.
9. The brain’s ability to adapt and rewire its synaptic connections.
10. The area of the brain involved with emotions, especially fear, anger, and happiness.
11. The pathway for nerve signals to and from the brain. (two words, no space)
12. The junctions where neurons make connections to one another.
Answer Key

**Staying Sharp: Tenets of Successful Brain Aging** word search:

```
RNP NORKEONGDAMBYLIMAFSONA
IRMENTALSTIMULATIONDEARN
LSAIUIOUEIEARENOITACUDEA
OCHPVRTVLYTLEVONACOTRGTL
PETHACLAOEXERCISEMIELNHA
ALIFESTYLEAINRNTTMSLTSIGT
LZCORSAPURISUWNODSVLSDUN
CZECOISHHNSEMAGGINIALPDAAE
AUSBERITDMSNEIPYTIENELM
RPIELANCERLNETORKCACEHRHP
DCECGTENHIYRABSAYNOPAA
SMILCHILDRENSCPVMDDHIIURNH
CIEMUHEAIIKROWTENVTSERGR
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**Staying Sharp: Learning as we Age** word search:

```
EXECUTIVEFUNCTIONOFMEOYIAI
TOLXIITNNANSAENRTEXPERIENCE
ESCSYIGTOBEMXAOCONNECTIONG
GHHUNCANACIUOCMNAGNNHMIGA
GPASTEPAIULRMNTOCFCCNOXNITAU
ONLMEDUATIONSIDENCUEIIMOARG
OTLADTROLTGBNOSECGATNEENLN
CSECSLCTRFYEEENIIHEINDRMISA
GTNOITAMROFNTLWTTOPEYLAEL
FRGPCSIIASRETTTIMSNARTORUENI
EYEPKSUCCESSFULAGINGTUEOYW
INONIFFEIOSIALADGYMAAXAMMTI
UTNHSOCKCTSSTNEMGDUJOLTLEEL
NGNANESPANYSAITSXHDAYSDTGI
```
Staying Sharp: Here’s to your vascular health! word search:

Staying Sharp: The Aging Brain word search:

Puzzle by the Dana Alliance for Brain Initiatives
Get Moving! jumble:

Prevent…OBESITY
Promote…NEUROGENESIS
Boost…MOOD
Slow…BONE LOSS
Decease risk of some…DISEASES
Increase…ENERGY
Combat high blood…PRESSURE
Improve overall…HEALTH

“What happened to the mollusk that went to the gym?” “It PULLED A MUSSEL!”

Keep Your Memory Sharp jumble:

RELAX
CONCENTRATE
FOCUS
SLOW DOWN
ORGANIZE
WRITE
REPEAT
VISUALIZE
ASSOCIATE

“Why do reptiles have such good memories?” “Because they have TURTLE RECALL!”

Brain Quote Cryptograms:

We're Not in Kansas Anymore: And my head I'd be scratching while my thoughts were busy hatching. If I only had a brain. --The Scarecrow

The Sci-Fi Brain: The human brain, then, is the most complicated organization of matter that we know. --Isaac Asimov

The Poetry of the Brain: The brain is wider than the sky, for put them side by side, the one the other will contain, with ease and you beside. --Emily Dickinson

Beam Me Up! : The knowledge to reconnect a brain does not exist yet in the galaxy. --Mr. Spock

Oh, the places you'll go!: You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose. --Dr. Suess

Renaissance Brain: A man paints with his brains and not with his hands, and if he cannot have his brains clear he will come to grief. --Michelangelo

A simple problem?: If the human brain were so simple that we could understand it, we would be so simple that we couldn't. --Emerson M. Pugh

An ancient view? : Men ought to know that from the brain, and from the brain only, arise our pleasures, joy, laughter and jests, as well as our sorrows, pains, griefs, and tears. --Hippocrates
Brain Diseases and Disorders word search

Words in a word puzzle
The 49 four-letter words we found in "NEUROSCIENCE" are:

<table>
<thead>
<tr>
<th>coin</th>
<th>euro</th>
<th>nose</th>
<th>rise</th>
<th>sere</th>
</tr>
</thead>
<tbody>
<tr>
<td>cone</td>
<td>ices</td>
<td>noun</td>
<td>roes</td>
<td>sine</td>
</tr>
<tr>
<td>cons</td>
<td>icon</td>
<td>nuns</td>
<td>rose</td>
<td>sire</td>
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<td>core</td>
<td>inns</td>
<td>once</td>
<td>rues</td>
<td>sore</td>
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<td>ones</td>
<td>ruin</td>
<td>sour</td>
</tr>
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<td>cues</td>
<td>iron</td>
<td>onus</td>
<td>rune</td>
<td>sure</td>
</tr>
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<td>ores</td>
<td>runs</td>
<td>uric</td>
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<td>ours</td>
<td>ruse</td>
<td>urns</td>
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<tr>
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<td>nine</td>
<td>rein</td>
<td>seen</td>
<td>user</td>
</tr>
<tr>
<td>eons</td>
<td>none</td>
<td>rice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 53 five-letter words we found in "NEUROSCIENCE" are:

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<th>noise</th>
<th>rinse</th>
<th>scour</th>
</tr>
</thead>
<tbody>
<tr>
<td>cones</td>
<td>ennu</td>
<td>nonce</td>
<td>risen</td>
<td>seine</td>
</tr>
<tr>
<td>conic</td>
<td>ensue</td>
<td>Norse</td>
<td>rosin</td>
<td>since</td>
</tr>
<tr>
<td>cores</td>
<td>icons</td>
<td>nouns</td>
<td>rouse</td>
<td>siren</td>
</tr>
<tr>
<td>corns</td>
<td>incur</td>
<td>nurse</td>
<td>ruins</td>
<td>sneer</td>
</tr>
<tr>
<td>cries</td>
<td>inner</td>
<td>occur</td>
<td>runes</td>
<td>snore</td>
</tr>
<tr>
<td>crone</td>
<td>inure</td>
<td>osier</td>
<td>scene</td>
<td>sonic</td>
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<tr>
<td>cures</td>
<td>irons</td>
<td>ounce</td>
<td>scion</td>
<td>union</td>
</tr>
<tr>
<td>curie</td>
<td>nicer</td>
<td>reins</td>
<td>scone</td>
<td>urine</td>
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<td>resin</td>
<td>score</td>
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</tr>
<tr>
<td>curse</td>
<td>nines</td>
<td>reuse</td>
<td></td>
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</table>

Brain-y Crossword


DOWN: 1. cerebellum, 2. neurons, 3. axon, 5. neuroethics, 9. plasticity, 10. amygdala, 11. spinal cord, 12. synapses