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TAKING CHARGE OF YOUR BRAIN

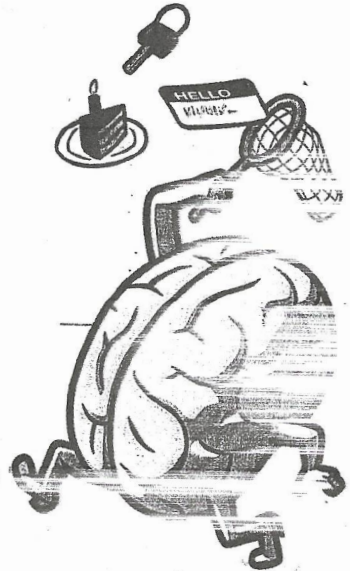
Presented at the Oregon State FCE Conference 10/6/09
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* LEADER GUIDE

Use the bibliography and other research to further enhance this lesson

Objective: This lesson will be reviewing the anatomy of the brain and what parts are responsible for certain functions. We will be discussing what we can do to keep our brains healthy and what we as humans do that is detrimental. There are many stimuli that we can practice ourselves and help others on a daily basis to deter certain disease processes.

Sing a song together "The More We Get Together" (in this handout) for stimulation and a general sense of well being of the group



The brain is a three pound wrinkled lump of gray matter that directs our movements, thoughts and memories, our loves, hopes and dreams. It's the organ that makes us who we are. It can also make us lose who we are, through degenerative diseases like Alzheimer's, which affects almost half of those who live past 85. And now we know it has far more to do with our overall health than we ever imagined. Science is also revealing the surprising power of the mind, when used correctly, to heal the body. Today's Alzheimer's drugs improve memory, buying many patients several years of mental clarity, but brain cells still die and patients decline. Calming the mind and body might even slow the spread of some cancers.

Activity: Group Bonding – choose a partner and work on the 'Towns in Oregon' puzzle handout. Give 7 or 8 minutes for this exercise then give a prize to the two members that got it first, preferably not candy as too much sugar is detrimental to the brain (nuts are good).

Your brain is the most complex and capable entity in the universe, far more chemically intricate and variable than any star, and vastly more capable of fact storage and random information access than the world's most sophisticated computer. In fact, the brain is so complex that mankind will, in all probability, never fully understand it. It's been said that if the brain were simple enough to be understood, we would be so simple that we couldn't.

The old adage 'use it or lose it' has been shown to be very accurate when it comes to maintaining memory and thinking ability in older adulthood. Researchers are also finding evidence that other lifestyle variables such as nutrition, physical exercise, reducing stress, and getting adequate sleep are all associated with better memory ability and a reduced likelihood of developing dementia. (<http://touchmark.com/article/maintain-good-memory-old-age.com>)

Exercise: The most effective approach to keeping your brain healthy with age, turns out to be something you probably wouldn't expect: physical exercise. Problems with an aging circulatory system can reduce the blood supply that brings oxygen and glucose to your brain. Regular exercise of the type that increases your heart rate, is the single most useful thing you can do to maintain your cognitive or thinking abilities in life. To be effective, exercise needs to last more than thirty minutes per session and occur several times a week, but it doesn't need to be extremely strenuous. Fast walking works fine. People who exercise regularly in middle age are one-third as likely to get Alzheimer's disease in their seventies as those who do not exercise. Even those who start in their 60's can reduce their risk by as much as half.

Nutrition: A big middle in middle age may mean big trouble for your older brain. The risk of dementia is 2.3X higher in people who have a big belly. Eat less, eat healthier foods. Cut out the trans-fatty acids: don't buy products that contain 'partially hydrogenated', vegetable oil; this includes almost all processed food. Read the labels. Don't deep fry your food, don't eat fried food. Reduce your intake of saturated fat, margarine is the very worst even more than butter: meat and full-fat dairy products are the major sources of saturated fat in the American diet. Protein is necessary for cell repair and maintenance. Not all cuts of beef are high in saturated fats, choose lean ones. Increase your intake of omega 3 fatty acids. Fatty fish is a terrific source such as wild salmon or tilapia. Fresh greens provide omega 3, the brighter the better; eat a fresh salad every day! Walnuts and pumpkin seeds are the best. Wash fruits and vegetables to get the pesticides off them. Buy organic when possible. Coffee or tea is fine, be careful of too much caffeine. Don't drink sodas, regular ones have too much sugar and diet kinds have Aspartame that releases free radicals in the brain that damages nerve endings. Alcohol helps lower blood pressure, which improves the flow of blood to the brain. It also helps to relieve stress. More than two a day, increases brain degeneration. Berries, especially blueberries are great. Olive oil is the best oil to use. Snack foods are loaded with sugar and bad fats, especially trans-fatty acids: chips, breakfast bars, energy bars, granola bars, commercially prepared cakes, white processed cake or pancake mix, candy, packaged cookies, flavored gelatin desserts, popcorn, and pretzels.

Spirituality, involvement, and socialization: In order to have a rounded sense of well being take a risk to be involved in things, don't be passive. Meet new people, join new groups; boredom is bad for the brain. Loneliness and depression can lead to brain deterioration.

Sleep: researchers feel that most adults average 7 ½ hrs of sleep a night. Establish and maintain a consistent sleep schedule and routine. Go to bed about the same time every night, as well as about the same time arising. Exercise earlier in the day in order to settle your endorphins. Adjust room temperature and lighting. Avoid caffeine and alcohol toward bedtime: a warm glass of milk or herbal tea can help you relax for sleep.

Smoking: if a smoker and a nonsmoker were each to take a memory test, the nonsmoker would do better. It has been know for years that smokers exhibited a far

steeper decline in memory and related cognitive or thinking functions than nonsmokers. Illicit drug use such as Marijuana, etc impair memory and related brain functions.

We used to think root canals were bad, then we learned that poor oral hygiene can cause everything from heart problems to diabetes. The state of your teeth may affect your mind, too. Keep this in mind the next time you are too busy to floss!

Most of the information that comes at us every day is, frankly, not worth remembering. A fit brain will efficiently screen out and discard worthless or meaningless data so it can remember what's important. To keep your brain fit, try these strategies: Choose what you want to remember, for instance at a party, learn only the names of people you hope to see again. Make the best of your technology – keep files and address list on your computer or cell phone, let them do the remembering. Block unpleasant memories – Lingered bad memories that should have been processed and discarded long ago – of childhood trauma, emotional rejection, or any of life's inevitable disappointments – can blunt your mental sharpness. When it comes up replace it with a happy one, recall the joyful occasion in detail, try to relive it. It is very important to decrease stress in your life.

Dementia – a disorder that impairs memory, judgment, and motor skills.

Alzheimer's Disease – insidious onset of memory dysfunction that relentlessly worsens over time and comes to eclipse all aspects of thinking function.

Stroke – occurs when the blood supply to the brain is suddenly cut off and portions of the brain die. Most common symptoms are: loss of the ability to move a limb or loss of sensation in a part of the body and can start with dizziness or numbness.

To conclude this lesson, you may want to briefly discuss being an unexpected caregiver. When you least expect it, mom and dad re-enter your life. Through the wonders of medicine, their generation is living longer than ever before. They need to maintain their physical and emotional health. Maybe you've been pretty good at avoiding them as long as they are 'getting along'. Now it is your turn to nurture – what can you do? Do we really have to parent our parents? See the bibliography by Berit.

Brain Teasers:

Breathing deeply is one of the most important things we can do to keep our minds mentally alert. 20% of the air we breathe goes to our brain. Sit with your back straight, lying on your back, or standing or walking. Exhale completely through the mouth making an audible sound. Then, close the mouth and inhale quietly through the nose to a count of four. Hold the breath for a count of seven. Next, exhale audibly through the mouth to a count of eight. Repeat for a total of four cycles, then breathe normally.

Set a goal today of doing at least 2 things that are different for you. Here are some suggestions: When you set the table, arrange the plate, cup/glass, silverware in a different way. Fix your hair in a new way. Wear some jewelry that you forgot you had. If you walk, take a different route. Read your novel aloud. Go to a different grocery store where you don't know where everything is. Phone someone you have never phoned

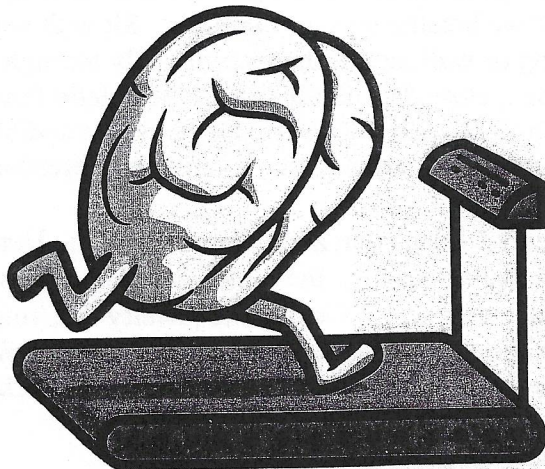
or haven't called for a long time. Plan a surprise for someone. Go and visit a place you have never been before.

Think for a moment about the skills you had in the past that may have diminished when not used. Did you once play ping pong, horseshoes, jacks, shoot baskets, throw darts, play pool? Did you knit, crochet, tat, do beadwork, carving, model building? Did you play a musical instrument, sing, dance, act in a play, do oil painting, water colors, weaving, sewing? Pick one activity and reintroduce yourself to it. If you haven't done it for awhile, your skills have probably declined. Don't be discouraged!

We are told that when you watch TV, the brain waves are similar to when you are asleep. We also know that the typical older adult watches 43 hrs of TV a week. So, what can we do to make TV watching more challenging to our brains? Try several of these ideas today and often: play Jeopardy or Wheel of Fortune or other TV games. Watch the news and when the program is over, recall the topics that were covered. If you are listening to an interview, count the number of times the speakers say um-m-m. Listen for words that are unfamiliar and after the program, look them up in the dictionary. Take note of the clothes people are wearing and list suggestions for improving their appearance. If you are watching the advertising, challenge yourself to develop a new ad for the product.

We have been conditioned to believe that young people should have dreams, but we seldom speak of older persons having a dream. No matter what our age, we can have new dreams and set new goals. Come up with a dream for yourself. It may be a far reaching dream or a short term dream. Some examples: Be in touch with a long lost family member, help a child learn to read, learn a new language, grow a new flower or vegetable, get a pet, learn to use the computer. Think about it, have a dream. Your brain will be delighted.

*Simply copy the games or pages you want the member to have out of this lesson for your presentation. I have not made a separate member lesson in order to save paper.



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How well do you know the towns in Oregon? See if you can figure them out!



Town answers on bottom of bibliography page

HOW WELL DO YOU KNOW YOUR BRAIN?

When are your last brain cells born? A. Before birth B. At age six C. Between the ages of eighteen and twenty-three D. Old age

Men and women have inborn differences in: A. reasoning B. navigation C. ability to leave the toilet seat down D. both A and B E. Both B and C

Which of the following is not likely to improve brain function in old age? A. eating fish with omega-3 fatty acids B. getting regular exercise C. drinking one or two glasses of red wine per day D. drinking a whole bottle of red wine per day

Your brain uses about as much energy as: A. refrigerator light B. a laptop C. An idling car D. a car moving down the freeway

Which of the following activities is likely to improve performance in school? A. listening to classical music while you sleep B. listening to classical music while you study C. learning to play a musical instrument as a child D. taking breaks from studying to play video games E. both C and D

Which of the following things is a blow to the head least likely to cause? A. loss of consciousness B. memory loss C. Restoration of memory after suffering amnesia D. personality change

You are in a noisy room, attempting to talk to your friend on your cell phone. To have a clearer conversation, you should A. talk more loudly B. cover one ear and listen through the other C. cover your ear when you talk D. cover the mouthpiece when you listen

Blind people are better than sighted people at which of the following? A. understanding words B. hearing sounds C. remembering stories D. training dogs

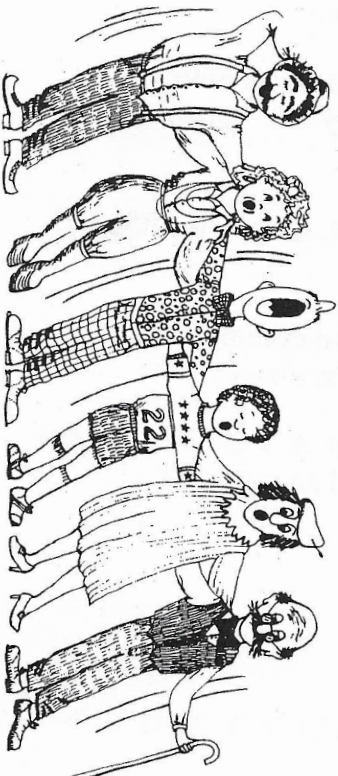
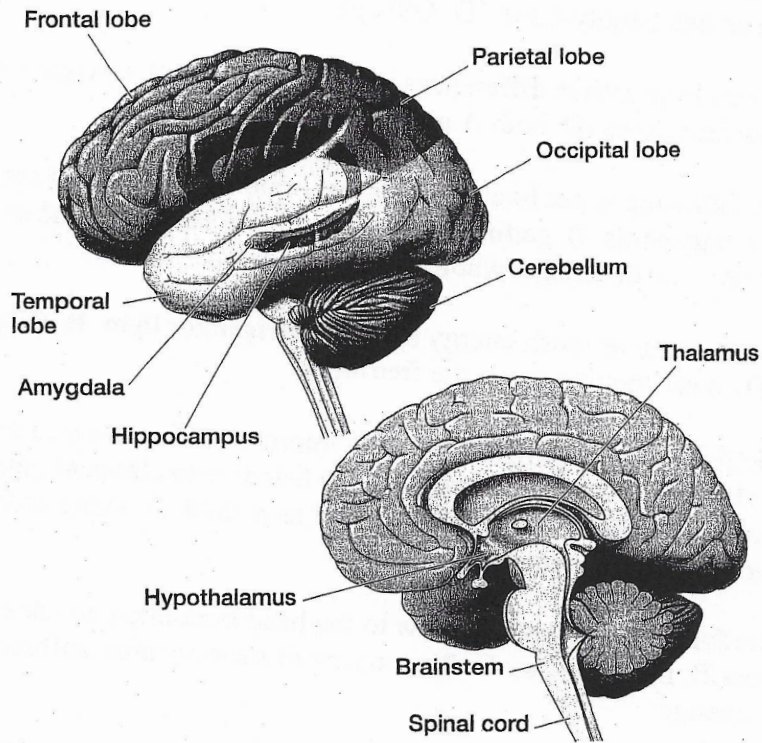
Your mother was improving your brain capacity when she told you which of the following things? A. "turn that music down" B. "go out and play" C. "practice your instrument" D. all of the above

Memory starts to get worse in which decade of life? A. thirties B. forties C. fifties D. sixties

Which activities kill brain cells? A. drinking 3 bottles of beer in an evening B. smoking pot? C. using cocaine D. all of the above E. none of the above

When Einstein's brain was compared with the average person's, it A. was larger B. was indistinguishable in size C. had more folds on the surface D. had an extra part

Here are just a few of the uses of the parts of the brain: hippocampus – stores facts; cerebellum – guides movement; hypothalamus – regulation of sexual behavior, hunger, etc; thalamus – filters information and passes it along; occipital lobe – visual perception; temporal lobe – hearing and understands speech; parietal lobe – receives information from the skin senses.



THE MORE WE GET TOGETHER
(Tune: Did You Ever See A Lassie?)

The more we get to-gether, to-gether, to-gether,
The more we get to-gether, the hap-pier we'll be,
For your friends are my friends, and my friends are
your friends, The more we get to-gether, The
hap-pier we'll be.