

## CHAPTER THREE

### Creative Aging's Impact on Health

Recently, one of my dance students, Sandra O'Brien, age 75, pulled me aside after class. She told me, "You know, Cheryl, a few years ago I didn't like getting older because it meant there would be so many things that I wouldn't be able to do, but since I've started these dance classes, I don't feel that way anymore. I found something I like and feel good doing no matter how old I am."

When Sandra went in for her annual checkup, the doctor was excited by all the positive changes in her health profile. She'd lost weight, her blood pressure was lower, her balance had improved substantially and most of all, Sandra's outlook on life had shifted. She no longer dreaded the aging process and all the negative connotations that it had presented.

Sandra has learned to embrace the years ahead and rediscover the things that made her feel good about herself years ago. She pushed me to start a ballet class for seniors her age after watching from the sidelines as another woman, a 63-year-old novice ballerina, learned a modified series of *pliés*, *tendus*, *ronds de jambe* and *grand battements*, designed for a beginning ballet student over the age of 60.

When I told my mother, a ballet pianist for more than thirty years, about this new dance class, she thought I was crazy for teaching ballet to this age group. However, I've found that all it takes is willingness to try and a spirit of openness to new adventures in one's life.

Engaging in creative endeavors is a very powerful dynamic as we age. One of the earliest studies on the impact of creativity on older adults was undertaken in 2001 by the National Endowment for the Arts in conjunction with George Washington University. The researchers examined seniors ranging in age from 65 to 103, divided into two groups that were matched in their levels of functioning at the start of the study in terms of physical health, mental health, and activity levels. The Intervention Group required weekly involvement in a participatory art program, whereas the Control Group went about their regular activities. The positive differences documented in the Intervention Group included better health, fewer doctor visits, less medication usage, more positive responses on mental health measures, and more involvement in overall activities.

The findings from this breakthrough study led by Dr. Gene Cohen, focused on a new concept: looking at potential beyond problems. Dr. Cohen was excited by the results of this study, which showed true health promotion and disease-preventive effects for those seniors involved in the arts group (*The Creativity and Aging Study: The Impact of Professionally Conducted Cultural Programs on Older Adults*. Final Report: April 2006).

As director of the Center on Aging, Health and Humanities, Dr. Cohen worked tirelessly to change people's thinking at a time that treated aging as a disease. In contradiction to the commonly accepted dogma, he found that an individual's later years can be a time

of incredible creativity. He discovered that our brains create new brain cells as long as people are inspired to keep learning new things. In 2005, Dr. Cohen wrote *The Mature Mind: The Positive Power of the Aging Brain*, stating, “The big news is that the brain is far more flexible and adaptable than once thought. Not only does the brain retain its capacity to form new memories, which entails making new connections among brain cells, but it can grow entirely new brain cells—a stunning new finding filled with potential.” He believed that retirees across the spectrum have an unlimited capability for intellectual growth.

In an obituary for Dr. Cohen written in November of 2009, *Washington Post* writer Patricia Sullivan quotes Cohen as stating, “The magic bullets are all blank,” referring to all the pills and herbal remedies recommended for improving mental health. He urged seniors to rely on “intellectual sweating” instead. “Make it a point to learn something new, instead of turning to hormones or ginkgo biloba,” he advised.

Today, these words ring true more than ever as scientific discoveries continue to demonstrate the ongoing learning capacities of our older brains. Dr. Peter Davis, with the Albert Einstein College of Medicine, commented on the subject on the PBS show, “Arts and the Mind: The Art of Connection,” aired on September 10, 2012: “When I look at the brain of a healthy 95-year-old, it looks the same as the brain of a healthy, active 35-year-old,” he said. “These myths of losing brain cells are simply not true.”

That doesn’t mean there is no deterioration in the aging brain, but in some brains new connections are available to handle some of the workings of the brain to make up for those that are no longer actively available. Dr. Davis says it is very important to “build up alternate pathways in the brain.” He calls it a theory of cognitive reserve, which can add new connections. Ways to do this include brain stimulation like reading or exploring new activities that improve our cognitive outcomes.

For more than 37 years, Dr. Davis has been working on the problems of dementia and Alzheimer’s disease. He finds that the largest single cases of intellectual problems in the elderly today come from Alzheimer’s. That number amounts to around 30%-35% of the elderly. To put that in perspective, this also means that about 65 percent of the elderly *don’t* end up with the disease. So, Davis believes they may have some kind of immunity to it, that perhaps their brain is put together to protect itself.

One form of protection, Dr. Davis notes, is a lifetime of involvement with the arts. “Bold, physical and mental activity, such as dance—drama—playing a musical instrument, improves the ability of the brain to resist the disease,” says Davis.

Indeed, long-term population studies have singled out dance as the most effective activity in respect to healthy aging. One study completed in 2003 surprisingly revealed that dance was the only physical activity that demonstrated any reduction at all in the risk of dementia.

A study titled “Leisure Activities and the Risk of Dementia in Elderly” published in *The*

*New England Journal of Medicine* 2003, confirmed that participation in a dance program could reduce the rate of development of Alzheimer's by up to 75 percent. Regarding these startling statistics, Dr. Davis remarked, "There is no drug now or on the horizon that can reduce the rate of Alzheimer's disease by 75 percent."

Dr. Davis explains some of the reasoning behind this. Alzheimer's attacks the highest functioning part of the brain first, but music—dance—visual information can still get in. So, it is critical that we maximize our capabilities as we age. Dance especially is a combination of mind/body movement so it utilizes several areas of the brain.

Harvard Medical School psychiatrist Dr. Joseph Coyle wrote a commentary on Cohen's study that was cited by Mark Underwood in "Mental and Cognitive Benefits of Dancing Makes You Smarter," published November 11, 2012 in *Santa Monica Mirror*. Coyle added the following explanation of Cohen's findings: "The cerebral cortex and hippocampus, which are critical to these activities, are remarkably plastic, and they rewire themselves based upon their use".

Another researcher involved in the study, neurologist Dr. Robert Katzman, suggested that the individuals were more resistant to the effects of dementia because they built up more cognitive reserves and increased the complexity of their neuronal synapses due to their participation in leisure activities.

Aha! The good old "use it or lose it" principle! What we thought only applied to the muscles in our bodies also applies mightily to our brain.

Even though Dr. Joe Verghese, the lead author on the study and Professor of Neurology at Albert Einstein College of Medicine is unsure of the exact reasons behind dancing's powerful effects, he says that, "unlike many other physical activities, dancing also involves significant mental effort and social interactions." Both mental and social involvement can possibly postpone or reduce the risk of getting dementia (Verghese & Lipton, et al., 2003).

It is important to connect these two key forces: the physical and mental aspects. The physical movement of dancing stimulates blood flowing to the brain at the same time that the brain reacts positively to being with others while dancing. When we are around others, feelings of loneliness and depression subside, and dance requires individuals to learn and remember complex movements and steps while trying to time those moves to the music.

Other leisure activities such as reading, playing board games, painting or playing musical instruments also require cognitive effort. All of these pastimes could be associated with a lowered risk of dementia (Verghese & Lipton et al., 2003).

Involvement in the arts is becoming more accepted everyday as a health benefit for all ages and especially for aging seniors. A case in point is Mesa Arts Center (MAC) in Mesa, Arizona, which recently began an outreach program for the city's older adults.

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Mandy Buscas, Arts Education Outreach Coordinator at MAC, as it's called, began an outreach program for seniors in 2011. "I had attended a summit at the National Center for Creative Aging (NCCA), so when I came to work at MAC, I made that my first priority," Buscas told me.

The programs she's introduced are based on the theories of Dr. Gene Cohen and his studies in the benefits of promoting creativity at every age. "That's what drives our programs," she says. Seniors aren't always on the top of the list when funding for the arts is allocated, and in this case it was an underserved population. Mesa, Arizona is a community of about a half million residents which is composed in large part of retirees; many who are snowbirds who flock to the area in winter to escape the bad weather in their permanent homes. So, the need was there.

Gearing the programs toward those 55 and older means including people with a large range of ages and of different capabilities. Currently, MAC's outreach programs serve three separate groups: those in an independent living facility whose average age is 92; a second group in an adult daycare setting, many of whom have dementia or Alzheimer's; and a third group that meets at the Center itself for classes and workshops.

Two components form the basis of the Creative Aging program: a visual arts portion and a separate section involving creative movement. During a session at the adult daycare, participants may glue bits of colored paper atop a three-dimensional form. Some may paint the form as well, adding another layer to the mixed-media project. They talk about what they are doing or reminisce about memories from the past as they work.

Key to all aspects of the program is incorporating a feeling of no intimidation. Buscas tells me, "We have an amazing process that is so accessible. Our guiding philosophy is layering and that no mark is final. That is powerful even for me because I am not an artist—but that doesn't mean I am not creative and also free to create."

That sense of allowing yourself to try something new and not judge the outcome is very important to all of us, especially at this point of our lives. The last thing we need is to have some young helper tell us that this is the way to "color within the lines" so to speak.

We need freedom to explore the possibilities of what we can do now just as we did as a child, trying something new and unfamiliar. "We don't go into the program, trying to tell them they have to paint a landscape or dance a certain step," Buscas says. "We believe everyone who walks in is a creator."

Good examples are presented in a video on MAC's website. Participant Wilma H., a hairdresser now enrolled in the visual arts program through the adult daycare program, says, "This [creating art] is something very new for me. I never thought I was artistic at all!" However, after pasting and painting and yes admiring her work, she beams with pride. Or take Richard M., who methodically paints his creation, adding dabs of black paint here and there. He explains to the teaching artist, with a sense of knowing irony, "I can't guarantee consistency, but I can guarantee the truth" ([www.mesaartscenter.com](http://www.mesaartscenter.com).)

Learning to dance and move to music is another process that can be intimidating, but using key teaching artists skilled at creating entry points to creative discovery of this type is what works best at MAC. Teaching artists such as dancer and choreographer Elizabeth Johnson helped shape the dance movement program for older adults using gestures and movements, based on storytelling to engage the seniors. Some are very mobile while others may have to sit in chairs as they sway and fill out the music. "It's an open collaboration in a very supportive environment," Buscas says.

Participants in all of these creative programs have shown great improvement in their overall health, including better balance, improved feelings of self-worth, and a wonderful sense of creating with and belonging to a social group. Many studies document these positive attributes and with such great results that more researchers, scientists and physicians are taking note. According to Daniel Clifton's story in *The River Cities Daily Tribune*, April 4, 2013, director Barbara Bend from the Harmony School of Creative Arts in Marble Falls, Texas says, "Studies have shown that challenging, participatory programs promote better health and disease prevention, resulting in higher levels of independence and less need for long-term care."

In another article, published in *Scientific Life* in 2012, by Tori Rodriguezin Share, researchers documented the health benefits of creativity—that creative thinking can reduce stress and keep the brain healthy. Nicholas Turiano, author of a study on 1,000 older men, gathered from 1990 until 2008, says, "Individuals high in creativity maintain the integrity of their neural networks even into old age. Keeping the brain healthy may be one of the most important aspects of aging successfully—a fact shown by creative persons living longer in our study."

These are the types of healthy benefits that everyone can achieve if they allow themselves to keep actively involved in life. "It's a celebration—movement is in the moment—and that is what our lives are like!" exclaims one of the creative dancers at the MESA Arts Center.

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For musician Loril Hartman, the world of music is a life-long passion. As a retired piano teacher and ballet pianist, she surrounded herself with music, but as she aged, arthritis took its toll on her hands and knees. Her health deteriorated, and she gave up playing the piano entirely. She spent her days, lying in bed, watching television alone in her bedroom. Because she quit doing the thing she loved most, depression set in.

Luckily for her, she became friends with a man who encouraged her to play a tune for him on the piano in their community's ballroom. She found a hymnbook on the piano ledge and looked it over. Then, the next day she spotted the sheet music to a simple version of "Für Elise," a beloved piece composed by Beethoven. She tapped out the notes with her gnarled fingers, sounding out the melody to the piece. That first try was painful, and she wasn't so sure she should even bother continuing. With the encouragement of this gentleman, though, she kept at it, practicing a little every day. To get her fingers moving better along the keyboard, Loril started playing the same simple musical scales she used to teach her students.

It wasn't long before she asked her son to bring the sheet music for the Bach Inventions and Mozart's Concertos, upping the difficulty level of the music and the techniques needed to play the pieces. Within months, she was playing sonatas and symphonies at full speed, amazing her family with her progress. Today at age 83, she still practices for several hours each afternoon after lunchtime when many residents of the assisted living facility where she resides come by to sit and listen to her wonderful music.

"Many afternoons you will hear Loril playing the piano on the second floor," says the director of the residence. "Today she played music from "Les Miserables." It's like attending a mini concert."

In this case, playing the music works in many beneficial ways for both Loril and for those listening to her music as well. She keeps her brain active and also keeps her fingers and hands stretching and moving. Other physical benefits include moving her arms and shoulders while stroking the ivories up and down the keyboard. Because the music draws her into it, her blood pressure goes down, and her stress levels dissipate. Then, there is the social aspect. Loril receives many compliments on her playing, and that gives her an inner glow of accomplishment and fulfillment. Plus, she gets an audience that also benefits from listening to her music.

There is a growing awareness and acceptance across the medical spectrum of music's ability to stimulate the brain and excite our souls. In 2011, the *Emory Report* included a study that reported on the positive effects of music for people aged 60 to 83. The study included 70 people with different backgrounds in music (Baker, 2011). According to researchers from the University of Kansas Medical Center who conducted this study, the people with the highest levels of musical training demonstrated the best mental acuity levels. Those individuals also received the highest test scores when tested on brain functioning.

Creativity stimulates the brain and impacts our health in a multitude of positive ways. It engages us in doing something fun. It takes our minds off problems we may be experiencing—both physically and mentally—even if only for a short burst of time. Doing something creative provides a wonderful sense of accomplishment and self-worth, and doing creative things with others allows us to share those positive, glowing feelings with our fellow beings.

## GUIDELINES FOR USING CREATIVITY FOR BETTER HEALTH

1. Select something creative to try. Did you use to draw in school? Were you in any plays? Did you sing in the choir? Were you always outside, planting and growing things? Did you like to build things? Did other languages intrigue you? Dig deep and think about something creative that sparked your imagination as a child.
2. Now, search your local paper for art lessons, language lessons, play auditions, gardening workshops, or jewelry making lessons at your local community center or college. Most libraries have ancestry workshops. Look for places that specialize in teaching those over the age of 50.
3. Sign up! Take action and move forward even if you feel shy or awkward about trying something new. **BE BOLD. TAKE A RISK!** Remember, these things were new to everyone at one time. Even Michelangelo had to start somewhere!
4. After enrolling in a class, place the dates on your calendar in **BIG LETTERS** and go. Don't let anything interfere with those dates.
5. Be gentle and kind to yourself when trying something different. Don't be critical. Just immerse yourself in the creative task. Take each lesson individually and allow yourself a span of time to learn and master the craft. Remember, just because we are older doesn't mean we can't still learn. We may simply need a different method or set of procedures—perhaps a little slower—as our way to learn and comprehend.

- Cheryl