

# Music Matters

## The Importance of Music Programming

By Jessica Yun, BM, MM, AD

### Introduction

In this course you will become more aware of the effects music has on the mind, body, and soul and how music is used to benefit people. The main topics covered include the benefits of music for the elderly, and people suffering from Alzheimer's and general memory loss. We discuss how and why music makes us feel good and the concept behind the 'Mozart Effect'. This course can also act as a guide to discovering how to find the right types of music programmes for your group. Throughout the course, there are interesting research studies and real stories of how music has made a difference in people's lives.



### What is Music Therapy?

Music therapy is a health profession that studies the correlation between music, the mind, and healing the body. Music can make you laugh or cry, feel angry or cheerful. It can make you want to jump up and down or it can make you feel sleepy. Some say it's good for the heart and soul. The music of the greatest classical composers certainly won't cure cancer or fix a damaged heart valve, but music can help ease your recovery from a cardiac procedure, reduce your anxiety after a heart attack or stroke, make cancer treatments a little more tolerable, relieve stress, and maybe even lower your blood pressure. When used appropriately, music can also shift mood, stimulate positive interactions, facilitate cognitive function, and coordinate motor movements.

Only professional, accredited music therapists are trained to use music interventions to accomplish specific individualised goals. If you are lucky, you will have access to a music therapist who can consult and make recommendations within your care community. However, there are some general concepts about the benefits of music that all people working in the healthcare field should know and be able to apply.

### The Healing Powers of Music

Music has long been an essential part of healing. The Chinese character for medicine includes the character for music. In ancient Greece, music was used to ease stress, soothe pain, and promote good sleep. Native Americans and Africans used singing and chanting as part of their healing rituals.

In Western culture, however, as music became increasingly accepted as an art form, its therapeutic

properties were mostly forgotten – rediscovered only when music therapy became an organised field in the early 1950s. Even so, many doctors today still ignore the ‘art of medicine’ and concentrate almost solely on the ‘science of medicine’.

This is changing though, as the benefits of music are being documented. Today, music therapists are signifying the value of music by treating people with everything from Alzheimer's disease and stroke complications to chronic pain and substance abuse problems. Since 1980, researchers have been focusing on the effects music has on the cardiovascular system. Most research looks at single variables, such as changes in blood pressure, heart rate, and blood flow. Other researchers concentrate on the holistic effects of music.

Some of the studies show:

- People who listened to classical music for 30 minutes per day had lower blood pressure, slower heart rates, and less distress than those who did not listen to classical music on a daily basis.
- Heart attack survivors who listened to restful music in a quiet environment for just 20 minutes were less anxious about their health than those who rested in a quiet room without music.
- Men and women who listened to music soon after undergoing cardiac surgery were less anxious and reported having less pain than those who just rested quietly.
- Older volunteers who listened to relaxing music for 25 minutes a day for four weeks lowered their systolic pressure (the top number in a blood pressure reading) by 12 points and their diastolic pressure (the bottom number) by 5 points. The control group that didn't listen to music had no change in blood pressure.
- By measuring blood flow through the forearm (a stand-in for blood vessel health) as healthy volunteers listened to music or relaxation tapes, researchers found that blood flow increased significantly for the volunteers who listened to relaxation tapes or music that evoked feelings of happiness or joy. Blood flow decreased for the volunteers who listened to music that provoked anxiety



## How Music Helps the Elderly

- Music reduces pain perception, restlessness, and anxiety through ongoing muscle relaxation.
- Listening to music increases a person's ability to express themselves, both verbally and

nonverbally.

- Music often provides spiritual or emotional support when listening to music that most reflects that person's spiritual concerns.
- Music encourages the individual to remain active and independent, which maintains quality of life and a 'sense of control'.
- Music helps decrease the sense of isolation and provides opportunities for socialisation.
- Music facilitates self-expression and encourages spontaneity.
- Music improves memory and keeps the mind active.



## Effects of Music

Many studies prove that music has a profound effect on your body and mind. Music therapy is a growing field of healthcare that evaluates these effects and uses music to heal in many different ways. In fact, music therapists are finding benefits in using music to help cancer patients, children with Attention Deficit Disorder (ADD), people with Alzheimer's disease, and mentally disabled people. Some hospitals are beginning to use music to cope with pain, depression, muscle tension, and muscle movement.

### Effects on the Brain

Research shows that fast, rhythmical music can improve your mental alertness, whereas, slower music makes the brain calm and relaxed. Music with a strong rhythmical beat (slow or fast) can stimulate brainwaves to vibrate with the beat. Also, music that changes tempos and characters (such as in classical music) likewise changes brainwave activity levels. Research shows that, over time, these changes in brainwave levels enable the brain to shift speeds with continued ease. In other words, music can bring benefits to your state of consciousness long after the music stops. Music also has a profound effect on memory – more about this later.

### Effects on Breathing and Heart Rate

When brainwaves change, other changes happen within the body. The autonomic nervous system, which controls breathing and heart rate, alters when listening to music. This often results in slower breathing and heart rate, along with many other relaxation benefits.

## Effects on Your State of Mind

Music can also be used to enlighten awareness and brighten one's state of mind. All too often, depression, anxiety, and stress can physically break down the body's ability to heal. Music helps keep creativity, optimism, and confidence levels high.

## A New Look

Listening to music has so many other wonderful benefits. We've mentioned that it lowers blood pressure (which can also reduce the risk of stroke and other health problems over time), boosts immunity, and eases muscle tension. All of these benefits reduce heart attack and stroke risks. With so many benefits and physical effects, it's no surprise that so many are taking a new look and seeing music as an important means to help the body stay (or become) healthy.



### **Try it!**

Try some DIY music stress relief. When you are feeling stressed out about something, lie down and take a 20-minute 'sound bath'. It doesn't matter what the music is, as long as it's something you find soothing. While you are listening, breathe slowly and feel your blood flow through your body. Do you feel any better?

## **Music as a Pain Reliever**

There is proof that music helps relieve pain and makes you feel better. Why? There are several theories:

- Music distracts one's attention from physical pain so the perception is that it hurts less.
- Music causes the body to release endorphins (hormones that counteract pain).
- Slow music relaxes the body by slowing breathing and the heartbeat.
- Music gives one a sense of control, and we all feel better when we are in control. *I'm not letting this pain control me!*

## **Music and Movement**

The use of music with physical activity can provide increased motivation for participation. (And it can make exercising a lot more fun, too!) Participants can gain from increased feelings of vitality and well-being, which are associated with the benefits of both exercise and music.

Music can reduce muscle tension and improve body movement. In addition, by varying the musical style and tempo, music can be used to facilitate different movements and target particular areas of the body.

Through the autonomic nervous system, the auditory nerve connects the inner ear with all the muscles in the body. As a result, muscle strength, tone, and flexibility are influenced by sound and vibration.



### Research Examples

- In a study from 1991, 24 undergraduate women were asked to swing their arms and hit a target pad on their downswing. Researchers found that when the women coordinated their movements with the beat of a synthesiser rather than following their own internal rhythms, they had significantly more control over their bicep and tricep muscles.
- In a study of 70 university students enrolled in an aerobics class, researchers reported that music increased their strength and improved their ability to pace their movements. Also, the students' mood and motivation levels improved. The rate and precision of their movements tended to coincide with the rhythm and tempo of the music.
- In Norway, in the 1980s, educator Olav Skille began using music as therapy for children with severe physical and mental disabilities. He devised a 'musical bath', or a special environment in which youngsters could be immersed in sound. He found that a range of New Age, ambient, classical, and popular music could reduce muscle tension and relax the children. Known as 'vibroacoustic therapy', Skille's method has spread to other parts of Europe. In a study of patients suffering from severe spastic conditions, researchers found that vibroacoustic training increased the range of movement in their spines, arms, hips, and legs. Skille found that music in the lower frequencies – between 40 and 66 hertz – benefits the lower back region, pelvis, thighs, and legs. As the frequency of the music increases, effects are felt more in the upper chest, neck, and head.

### **Points to Ponder**

- Can you think of residents/clients in your home or community who could benefit from taking time to listen to music?
- Which of the benefits listed above do you feel would be the most important to your residents/clients? Or, would they all be equally important?

### Quick Summary

1. Music therapy is a growing field and there is research to back up the claims that music therapy

really works.

2. Music therapists are trained professionals who use music interventions to accomplish specific individualised goals.
3. The benefits of music can be quite broad. It can benefit people of all ages and with many different illnesses.
4. Music can improve lives by helping people improve their mental, emotional, social, intellectual, and even physical states.
5. Music can reduce stress, lower blood pressure, control breathing, distract one's attention from pain, and improve mood.
6. It fosters self-expression and gives people a feeling of independence, empowerment, and control.
7. Music can also reduce muscle tension, which improves body movement.

## What Types of Music Are Beneficial?

The bottom line is that any type of music can be beneficial if you like it and it makes you feel good. However, when it comes to using music as a therapy (where you are aiming for specific outcomes), choosing the right music is important. What one person thinks sounds soothing might sound annoying to another person. Prior experience with the piece is the greatest indicator of an individual's likely response. A melody that is soothing for one person may remind another of the loss of a loved one and be tragically sad. Choosing what will work for any individual is an important factor in music healing and something music therapists are trained to do.



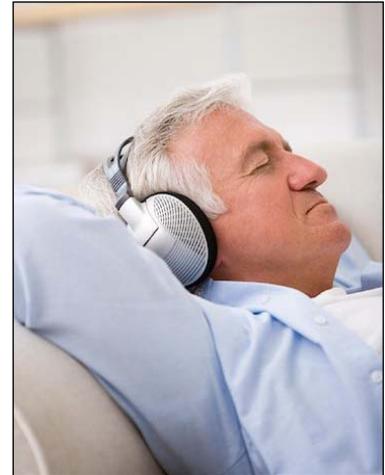
The music that works is not always what you might think. Researchers investigating the physiological response to different types of music have found some unexpected things. Believe it or not, in some people, so-called 'meditation and relaxation' music actually produces EEG brainwave patterns similar to those of people who listened to heavy metal music. Surprisingly, many people find Celtic music, Native American music, and other music with strong, loud drumbeats to be calming. Also, any music performed live (whether it be a recording of a live performance or actually listening to someone playing an instrument) evokes a very positive physical response in most people. (They feel like tapping their feet and moving around.) The bottom line is that whenever the correct combinations of sounds are heard, the right and left hemispheres of the brain (which affect everything from feelings to movement) seem to work together in 'perfect harmony'.

### Finding the Right Music for a Group

Because everyone responds differently to various types of music, finding a universal music style for a group of people is challenging. However, there are certain types of music that work similarly for almost everyone. Here are some suggestions for soothing and energising music used by music therapists in group settings:

## Soothing Music

- *Relaxation*: 'Canon in D Major' (classical) by Johann Pachelbel (1653-1706). This piece is recommended for, and has proved beneficial in, many healing situations. It strikes a chord of healing for many people. Pachelbel was a pioneer in matching music to moods. He believed that ascending arpeggios (running notes) in major keys created a feeling of happiness and minor keys resulted in sadness.
- *Tranquillity*: 'Liebestraum No. 3' (classical) by Franz Liszt (1811-1886). Ten years ago, this piece's melodic line was judged as the best to relax most listeners into a soothing mood. The "lingering, romantic melody is intense yet serene in expression."<sup>1</sup>
- *Sentimentality*: 'Ballad Theme' from 'Rhapsody in Blue' by George Gershwin (1898-1937). First performed in 1924, Gershwin himself played the solo. At the time, it was thought of to be one of the most significant works of the 20th century. It was Gershwin's first attempt to use jazz in a classical setting and it was a major success.
- *Tenderness*: 'The Cello's Song' from 'A Childhood Remembered' (New Age) by Kostina and David Arkenstone. "Rhythmic, synthesised chimes accompany the cello's melodic line that immediately moves into moods of loving compassion."<sup>2</sup>



## Energising Music

- *Cheerfulness*: 'Celestial Soda Pop' from 'Deep Breakfast' (New Age) by Ray Lynch. Rhythmic visions of bursting 'Celestial Soda Pop' are heard throughout the piece. Most people experience cheerfulness and a strong desire to dance. Lynch is a modern composer and performer. He is careful about every sound he creates, enforcing strong emotion.
- *Joyousness*: 'Espana' (classical) by Emmanuel Chabrier (1841-1894). Chabrier's character is reflected in his music: warm and lively.
- *Enthusiasm*: 'Presto' from 'Symphony No. 35 in D Major – The Haffner' (classical) by Wolfgang Amadeus Mozart (1756-1791). Most people discover new, surprising feelings of enthusiasm when listening to 'Presto'. Beginning with subtle energy, the piece quickly transitions into a *moto perpetuo*, which Mozart said should be played as quickly as possible.



## Try it!

Discuss with your group what types of music they enjoy listening to and what makes them feel anxious, relaxed, and energised. Can you find a type of music that everyone likes for each category above – soothing and energising? The key is to experiment. Find time every day to listen to various types of classical, Celtic, Native American, New Age, pop music, nature sounds, jazz, and so on. Take notes on how your group feels after each experiment.

## Other Types of Music

Although the research is not definitive and not all types of music have been studied, here are some other observations that are often cited:

- **Gregorian chant** uses the rhythms of natural breathing to create a sense of relaxed spaciousness. It is excellent for quiet study and meditation and can reduce stress.
- **Slow baroque music** (Bach, Handel, Corelli, Vivaldi) gives a sense of stability and safety.
- **Classical music** (Haydn and Mozart) has clarity and elegance. It can improve concentration, memory, and spatial perception.
- **Romantic music** (Schubert, Schumann, Tchaikovsky, Chopin, and Liszt) emphasises expression and feeling. It is best used to enhance sympathy, compassion, and love.
- **Impressionist music** (Debussy, Faure, and Ravel) is based on free-flowing musical moods and impressions. It can put you into a 'dream-like' state of mind.
- **Jazz, blues, Dixieland, soul, calypso, reggae**, and other music and dance forms that came out of the expressive African heritage can uplift and inspire. They can help to express deep joy and sadness.
- **Salsa, rumba, merengue, Macarena**, and other forms of South American music have a lively rhythm and beat that can set the heart racing, increase respiration, and get the whole body moving.
- **Big band, pop, top 40, country and western** can inspire movement, engage the emotions, and create a sense of well-being.
- **New Age music** with no dominant beat (Steven Halpern or Brian Eno) elongates our sense of space and time.



- **Religious and sacred music** can ground us in the moment and lead us to feelings of deep peace and spiritual awareness.

### Points to Ponder

- What music moves you? Do you associate specific recordings with different events in your life?
- If you want to relax, what music do you listen to?
- Next time you hear music – whether it be in the car on your way to work, in a shop, or whilst having your hair cut – try to listen more carefully. Think about what it is you are listening to and how it makes you feel.

### Quick Summary

1. If a music selection makes you feel good, that's a benefit. But that's not the same as using music as a therapy. Music therapists are specially trained to select the right music for the right person to produce the right outcome.
2. Not everyone reacts in the same way to the same music. Reactions are usually based on prior experiences associated with the music.
3. However, there are certain music selections that have been found to produce similar reactions in almost everyone – some soothing and some energising. Since they elicit similar responses, they work well in group settings.

## Music and Alzheimer's – Conjuring Up Music Memories

### Picture the Scene...

A group of Alzheimer's patients are gathered in the main room of a nursing home. One fragile woman sits off to the side in her wheelchair. She is staring at something off in the distance. When you try to see what she is looking at, you realise there is nothing there and she is in somewhat of a trance.

The activity coordinator introduces a young couple. The man is carrying a guitar and his wife sits down at the piano to warm up with a few chords. At this point, most of the residents are still disengaged. They can hear people talking around them but they do not show any interest. However, the two volunteer musicians are not worried. They begin to play, sing, and have a good time. Several of the residents begin to pick up on the joyous tune, 'Oh Susannah'. As the show goes on, the song 'How Great Thou Art' inspires many of them to stand and walk or wheel their chairs toward the piano. Several people are soon singing along to 'Amazing Grace'. And eventually almost everyone is dancing along to the music. Everyone, that is, except the fragile woman sitting in her wheelchair in the corner of the room. The concerned guitarist enquires about the woman. A nurse tells him the woman is German and doesn't know many American or British songs. Furthermore, she has forgotten how to speak English and only



speaks in German.

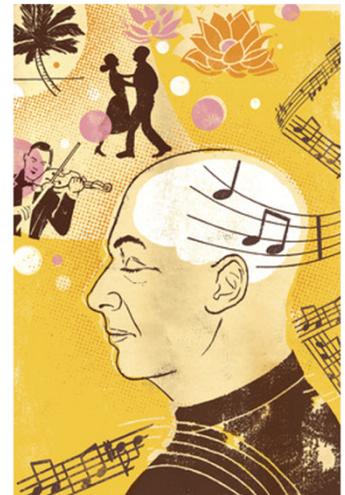
The young man smiles and gestures to his wife. The next tune is the 'Blue Danube'. As he watches closely, he sees the fragile woman's eyes begin to turn. She watches as several of the residents begin to waltz together, either on foot or in their wheelchairs. When 'The Beer Barrel Polka' starts, the woman, who hadn't smiled or connected in any way with anyone for months, wheels her chair toward the piano, singing all the way. The other residents begin to clap and sing along with her. The party continues for an hour, when the young couple must leave to go to their day jobs.

When the music stops, the residents soon go back to being more reclusive. But the fragile little lady continues to hum the familiar tunes. She soon fades back into her own world, but for a short time those tunes gave her a feeling of happiness as she connected with moments in her past. <sup>3</sup>

### Why Music Matters for Alzheimer's Patients

Researchers have discovered that listening to certain songs from their past conjures up very real memories for people with Alzheimer's disease. Even more interestingly, some studies indicate that simply making a mixed CD of songs the person is particularly fond of and having them listen to it on a regular basis might slow down the progression of the disease.

Professor Petr Janata and his team from the University of California began a quest to discover why music is such a powerful influence on our brains and its direct connection to memories from the past. They focused on the unique connection and response music has on people with Alzheimer's. One of their experiments included scanning the brain activity of 13 students while they listened to 30 of their favourite songs. They found that the section of the brain that is associated with music is also associated with vibrant memories. In other words, that area of the brain acts as a 'holding place', linking recognisable music, memories, and emotions. Also, it is this same region of the brain that is most resistant to the effects of Alzheimer's disease.



*"Because memory for autobiographically important music seems to be spared in people with Alzheimer's disease, one of the long-term goals is to use this research to help develop music-based therapy for people with the disease. Providing patients with MP3 players and customised playlists could prove to be a quality-of-life improvement strategy that would be both effective and economical. What seems to happen is that a piece of familiar music serves as a soundtrack for a mental movie that starts playing in our head. It calls back memories of a particular person or place, and you might all of a sudden see that person's face in your mind's eye. Now we can see the association between those two things – the music and the memories."* <sup>4</sup>

Professor Petr Janata

Prof Janata also discovered that music acts as a good source in recovering memories. And, the stronger the memory, the more the brain functions on a higher level.

## What Kinds of Music Matter with Alzheimer's?

Researchers have discovered that the teen years are when musical preferences and memories are formed. Daniel Levitin, in his book 'This is Your Brain on Music', states, "We tend to remember things that have an emotional component because our amygdala and neurotransmitters act in concert to tag as important the memories of these emotionally charged years of self-discovery." Therefore, people with Alzheimer's disease can often sing the songs they heard during their teen years, even when they can no longer remember the names of their children. This behaviour is also well documented in people with advanced dementia.

According to the Alzheimer's Association:

- "Selections from the individual's young adult years (8 - 25) are most likely to have the strongest responses and the most potential for engagement."
- "Unfamiliar music can also be beneficial because it carries no memories or emotions. This may be the best choice when developing new responses, such as physical relaxation designed to manage agitation and stress or enhance sleep."
- "As individuals progress into late-stage dementia, music from their childhood, such as folk songs or nursery rhymes, work well. Singing these songs in the language in which they were learnt sparks the greatest involvement."

### **Try It!**

Ask your group (Alzheimer's or not) to name some favourite songs from their 'courting years'. Play some of the recordings and discuss some memories from the past. Do they trigger any special memories? Then throw in some not-so-familiar songs and make new memories!

## Music Speaks Louder Than Words

Many music therapists work with people with Alzheimer's disease, which currently afflicts about 10% of the elderly (including nearly half of those in nursing homes) and is showing up at progressively earlier ages. Listening to music has resulted in decreased agitation, increased focus and concentration, enhanced ability to respond verbally, elimination of garbled speech, improved ability to respond to questions, and better social interaction.

In a study of ten elderly men and women with dementia and probable Alzheimer's disease who lived in an American state hospital, researchers found that the patients could recall the words to songs dramatically better than spoken words or information. They found that patients recalled 62% of the sung material compared to 37% of the spoken material. When they were asked to sing, hum, or keep time while the therapist sang, memory retention rose to 75%. Although memory recall was short-lived and concentration was lost soon after singing, the researchers concluded that singing, especially very familiar songs, was an effective way for family members of Alzheimer's patients to engage in vocal

communication.

### 'Music Speaks Louder Than Words'

By Peter, Paul and Mary

You can watch the video and sing along here:

<https://www.youtube.com/watch?v=nDzvJgb5xfM>



*(Chorus)*

*Music speaks louder than words  
It's the only thing that the whole world listens to.  
Music speaks louder than words  
When you sing, people understand.*

*Sometimes the love that you feel inside  
Gets lost between your heart and your mind  
And the words don't really say the things you wanted them to.  
But then you hear in someone's song  
What you'd been trying to say all along  
And somehow with the magic of music the message comes through.*

*(Chorus)*

*The longer I live the more I find that people seldom take the time  
To really get to know a stranger and make him a friend.  
But the power of a simple song can make everybody feel they belong.  
Maybe singin' and playin' can bring us together again.  
Singin' and playin' can bring us together again.*

*(Chorus)*

*Music speaks what cannot be expressed, soothes the mind and gives it rest,  
heals the heart and makes it whole, flows from heaven to the soul.*

Sergei Rachmaninov (1873-1943)

## **And the Beat Goes On**

Tom, who suffered a stroke, had been in traditional physical therapy for three months and was showing little further improvement. Finally, he was referred to music therapy in the hope that he could improve his balance and walking. The music therapist found music with a tempo and rhythm that matched the pace of Tom's stride. He knew the music and was comfortable walking to it. He said that as a teenager, he used to go dancing every week. As he walked, he became more confident about his movements. Amazingly, he began to add simple dance steps, sliding his feet or clicking his heels. He

said he couldn't help it, "It just happens." He said he wasn't "thinking about walking," he was "thinking about dancing."

Rhythm is, in fact, the primary property of music and is critical to human life in other ways. Rhythm organises physical movements and is very much related to the human body. For example, the body contains rhythms in the heartbeat, while walking, during breathing, etc. Plato defined rhythm as 'the order in movement'. At five months of age, when a foetus's auditory memory is forming, it experiences rhythm through the mother's heartbeat and respiration. Immediately after birth, basic motor patterns begin to develop.

A person's ability to engage in music, particularly rhythm playing, remains intact late into the Alzheimer's process. This happens because rhythmic responses require little to no cognitive or mental processing. They are influenced by the motor centre of the brain, which responds directly to auditory rhythmic cues. As dementia and Alzheimer's progresses, individuals typically lose the ability to share thoughts, yet they retain their ability to move with the beat until very late in the disease process. Ambulatory individuals can often dance. Those who are no longer walking can swing their arms in rhythm to the music (as if dancing with their arms) or gently rock or tap their hands in beat to the music.



### Drum Circles

Drumming is becoming an important therapeutic tool. Recent studies have shown that rhythm-based activities reduce stress, lower heart rate, improve motor coordination in stroke and Parkinson's patients, and help dementia patients focus. In addition, drumming is something everyone can do and requires no musical training.

Participation in a drum circle can be beneficial for everyone, regardless of age or ability. Everyone will find drumming to be a fun, energising, and enlightening experience.

#### **Try It!**

If memory and music are linked in the brain, the next time you have a memory lapse, put on an old familiar song and see if the memory comes back to you!

Make some simple drums out of empty containers with lids and set up your own drum circle.

### Quick Summary

1. Studies show that listening regularly to a mixed CD of familiar songs might help slow down the progression of Alzheimer's.

2. People with Alzheimer's can often sing the songs they heard during their teen years, even when they can no longer remember the names of their children.
3. Studies also show that memories and music link to the same parts of the brain, so familiar music can often stimulate recall.
4. Rhythm is connected to movement, and the right music, with the right tempo and beat, can help people recovering from stroke and other illnesses.
5. Rhythm is learned in the womb and is one of the last things to go. People can often keep the beat even if they can't communicate.
6. Drum circles can be fun and beneficial for everyone, regardless of age or ability.

## Toot Your Own Horn for Health

Studies have shown that learning how to play an instrument can boost brainpower, and it's never too late to learn! The act of playing an instrument requires counting, possible memorising, and hand-eye coordination – this is exercise for the brain. And, doing it with a group fulfils the socialisation aspect for good mental health. Although there are those who are not totally convinced that the research is definitive, here are some of the results:

- A 21-year study followed 469 people between the ages of 75 and 85 who did not have dementia at the beginning of the study. The results, which were published in the 'New England Journal of Medicine' in 2003, demonstrated a strong association between cognitively challenging leisure activities, including playing a musical instrument, and a decreased risk of developing dementia.
- Another study, conducted in a retirement home in 2005, revealed that seniors, ranging in age from their late 70s to early 90s, saw a 50-70% improvement in their memory after just 16 weeks of learning a new musical instrument. <sup>5</sup>
- Also, physical health and playing an instrument seem to go hand in hand. Research by Dr Frank Wilson of the University of California School of Medicine found that learning to play a musical instrument, besides bettering concentration and memory, also enhanced physical abilities such as coordination and even the improvement of eyesight and hearing.
- In 2005, a research study led by Dr Barry Bittman found that playing a musical instrument reduced stress more than other relaxing activities such as reading the newspaper.
- Another study, the Music Making and Wellness Project, reported that learning to play music can help seniors beat the blues. It discovered that the seniors who learned to play the keyboard reported decreased depression, lessened anxiety and lowered loneliness levels. <sup>6</sup>



- The Music Making and Wellness Project also documented that seniors given keyboard lessons had a 90% increase in their levels of human growth hormone (HGH), a chemical which is important in slowing such ageing factors as osteoporosis, wrinkling and aches and pains. Now, do you want to learn an instrument?

Learning an instrument in your senior years has other benefits as well. These include allowing you to creatively express yourself and develop new circles of friends. Finally, but perhaps just as importantly, you can impress the grandchildren and 'wow' them with a new talent!

### **Try it!**

Studies show that learning how to play an instrument is good for you and it's never too late to start. Here are some things to try:

- Ask the people in your group if there is a particular instrument they always wanted to learn to play but never quite got around to it. If you want, take a vote and pick one instrument for your group to learn.
- Get in touch with the music department at a local college or secondary school and ask them if they might have a volunteer who wants to improve their teaching skills or become more experienced in group teaching.
- Call an instrument rental shop to see if they will donate some instruments or give group rental discounts.
- Remember that learning an instrument requires time and patience. Not everyone will learn at the same rate, but everyone will benefit.
- Hold a short and simple performance session so people can show off their new skills. It is important to have a goal.

### **Quick Summary**

1. Playing an instrument can boost brainpower, and it's never too late to learn!
2. In addition to keeping your mind sharp, playing an instrument can improve your physical and emotional well-being and provide opportunities for creative expression and socialisation.

### **Can Music Make You More Intelligent?**

Let's talk about the Mozart Effect. This theory proposes that listening to certain music improves brain function, which helps a person recall things and learn new things. According to The Center for New Discoveries in Learning in America, learning potential can be increased a minimum of five times by using music that has 60 beats per minute.

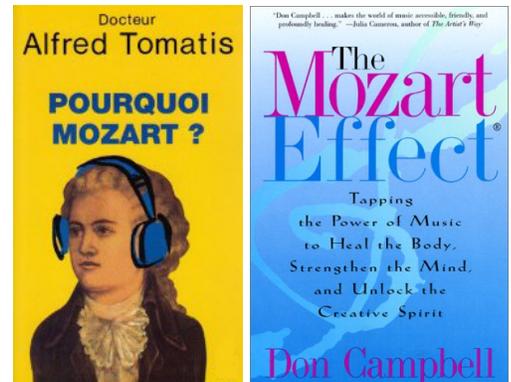
Mozart's music and classical music from the baroque period, with a 60 beats per minute beat pattern, causes the heartbeat and pulse rate to relax to the rhythm of the music. The theory goes that as the body becomes relaxed and alert, the mind is able to concentrate more easily. Furthermore, baroque

music decreases blood pressure, which also enhances the ability to learn.

Some also believe that the 60 beats per minute beat pattern activates the left and right brain. The simultaneous left and right brain activity maximises learning and retention of information. Also, activities which engage both sides of the brain at the same time, such as playing an instrument or singing, cause the brain to be more capable of processing information.

### What is the Mozart Effect?

The 'Mozart Effect' was first coined by French researcher, Dr Alfred A. Tomatis in his 1991 book 'Pourquoi Mozart?' ('Why Mozart?'). The book explains a set of research results that indicate listening to Mozart's music may improve performance skills of certain kinds of mental tasks. The approach became popular when Don Campbell released his book, 'The Mozart Effect', in 1997. Campbell tells us that listening to Mozart temporarily boosts students' IQ by 8-9 points. Campbell's book covers the works of Dr Tomatis, common music therapy experimentation, and research specifically involving the works of Wolfgang Amadeus Mozart.



### More than Mozart

The music used in the first Mozart Effect experiment was Mozart's 'Sonata for Two Pianos in D-Major, K.448'. This has continued to be the primary song used in Mozart Effect research. However, the effects of other classical and non-classical composers have also been studied and documented. For example, the music of Yanni (Greek pianist and composer, born 1954) is believed to have similar musical properties as Mozart. Others include minimalist music by Philip Glass (American composer, born 1937), the music of the dance group Aqua (Danish dance-pop group formed in 1989), and pieces by Albinoni (baroque composer, 1671-1751), and Schubert (Austrian composer, 1797-1828).

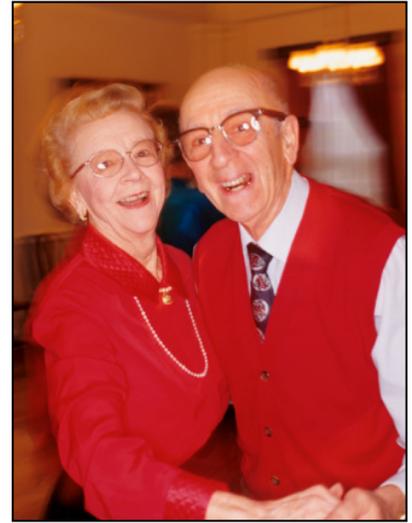
Some non-musical selections have also been compared to the music of Mozart. Researchers have studied the brain before and after a performance of comedian George Carlin and a Stephen King story read aloud, but the results were not conclusive.

### True Stories as Documented in 'The Mozart Effect' by Don Campbell

- Arriving for a singalong at a nursing home, music therapist Grant J. Scott noticed a striking woman sitting at the back of the room in her wheelchair, silent and withdrawn. He was told that the woman, Ruth, did not speak or interact with other residents. But part way into his session, while he was singing 'You Made Me Love You', Ruth suddenly straightened her back, and after two years of silence, broke into song, with a well-defined contralto voice that once must have been thrilling – as it was again on that magnificent night. Scott hasn't seen Ruth since then, but he understands that Ruth continues to sing and that she talks once again to her

loved ones and to other members of her community.<sup>7</sup>

- At a nearby veteran's home, Scott led a session of songs for a group of old soldiers and their spouses. Gradually, those who could, got up to dance, and that encouraged others. The sleepers awoke and began to tap their wheelchairs with their hands and fingers. Eventually, the dancing became more vigorous. Couples formed and embraced, reaching a high point with the song 'Sweet Georgia Brown'. As Scott began the song, he looked over to see Fred, an Alzheimer's patient who had been watching and chewing gum for more than 45 minutes, struggle to his feet, leaning heavily on his silver walking frame. A volunteer asked if he would like to dance, and Fred replied that he couldn't walk without his frame. But then he grew steadier on his feet, made motions like a trombone player and smiled broadly at the volunteer. He was having a wonderful time.



"From silence and quiet," Scott observes, "he had come alive to the beat of this old-time, down-home Southern song. When I looked back at him, I was overwhelmed by what I saw. Fred was dancing with his walking frame. He swung it from side to side and dipped as the beat carried him to the end of the song."<sup>8</sup>

*When I hear music, I fear no danger. I am invulnerable. I see no foe. I am related to the earliest times, and to the latest.*

Henry Thoreau, 1857

### **Try it!**

Although the existence of the Mozart Effect remains controversial, it might be fun to try it out. Learn a list of new words while listening to Mozart's 'Sonata for Two Pianos in D-Major, K.448'. Wait a day or so and see if you can recall the words and what they mean. If not, maybe play Mozart again and see if it helps you remember.

### **Tips for Music Programming**

Even if you are not a musical therapist, there are some things you can do and approaches you can apply. Here are just a few ideas to keep in mind:

- Play music while people are gathering for activities. It will keep everyone engaged until you're ready to start. If you want, you can select music that reflects what the activity is, for example, play familiar hymns before your spiritual activities, carnival music before games, theme tunes from a popular game shows before trivia, etc.



- Begin every activity with a little singing or humming. If it's a familiar song, you can sing/hum a cappella.
- When things get hectic, turn off the television and create a soothing atmosphere by tuning your radio to a classical music station.
- Add music to your physical exercise programmes. Music and Movement activities are a great way to get everyone moving and help to make exercising fun.
- Start a singing telegram group with a few residents and/or staff who like to sing. The group can serenade people on their birthdays or other special occasions. Come up with a clever title for the group and ask them to learn some tunes like 'Happy Birthday', 'You Are My Sunshine', 'All You Need Is Love', and other special songs. Family members can even make a special request.
- Also, form a choir whose members select music and sing during religious services.
- Start a drumming circle with some hand-drums and percussion instruments.
- Organise a kitchen band. It's easier than you might think! Again, come up with a clever name for your group (eg Parkview Pots and Pans) and make your own instruments out of pots, pans, spoons, and other kitchen items.
- The kazoo can be a fun 'instrument' for everyone to learn, and it's not just for children.
- Ask families to make a CD of their loved one's favourite songs. Play it during one-to-one visits. Also, be sure to capture music preferences in your assessments or life story work.
- Remember when you are having a singalong to look for music that's in a lower key, which is easier for older people. (The vocal cords can't reach those high notes when we get older.) Also, remember to provide large-print lyrics. Pass these suggestions along to performers who visit your community.
- As well as singalongs, you can do some karaoke or a Sounds Quiz.
- Study different composers, instruments, and musicians. Ask a local music shop to bring in and demonstrate different instruments.

- Invite local music teachers to give performances at your home. Contact local schools and invite the children in to perform.
- Plan themed music sessions (classical, romantic, big band, 50s music, WWII songs, etc).
- Watch a musical, ('South Pacific', 'Oklahoma', etc) or do some dancing, either on foot or from an armchair.

## Final Thoughts

Most of us enjoy listening to music without being fully aware of its impact. Sometimes it's stimulating, sometimes it's relaxing, and at other times it's overwhelming. Whatever our response, music produces mental, physical, and spiritual effects. To come to understand how to heal with music, we have to look more deeply at what it actually does. Once we have this knowledge, we can begin to do something about it, no matter what our level of musicality. We should learn to 'tune in' as effortlessly as we would our television channels so as to produce the specific effects we want.

Physical, mental, and emotional challenges are met so much more easily when one can make music! It does not have to sound perfect, but should come from the heart. Try singing, humming, whistling, beating a drum, playing a flute, guitar, or piano. The healing process occurs even when you are not aware of it.



*The health of the physical body is undoubtedly linked to our emotional, mental, and spiritual health. Music is a powerful catalyst for healing because it touches the very core of humanity... our souls. With music, we can remember our connection to the Creator and the powerful Healer within.*

Kate Mucci, 'The Healing Sound of Music'.

## References

1. David Ewen (1962). 'Popular American Composers'. H.W. Wilson Company, pg 70.
2. Judith Pinkerton (1996). 'The Sound of Healing'. Alliance Publishing, Inc., pg 106-107.
3. Kate Mucci. 'The Healing Sound of Music'.
4. Petr Janata. 'The Neural Architecture of Music-Evoked Autobiographical Memories', Cerebral Cortex 24, Feb 2009.
5. Patrick B. Massey, M.D., Ph.D. 'Learning an Instrument Seems to Help Mental Function', Daily Herald; 26 September 2005.
6. Midori Koga. 'The Music Making and Wellness Project', American Music Teacher; October-November 2005.
7. Don Campbell (1997). 'The Mozart Effect'. Avon Books Printing, pg 229-230.
8. Don Campbell (1997). 'The Mozart Effect'. Avon Books Printing, pg 230.