

# FREE YOUR glee

A three-week Newspapers In Education program in partnership with The Puyallup Fair

## CHAPTER TWO

**THE  
PUYALLUP  
FAIR**

# Glee: Is it all in your head?

Think about one of your favorite pieces of music and how it makes you feel. Now ask yourself why the music invokes emotions — and what factors contribute to the feelings you experience when you listen to this particular piece of music. The answer to this question will be different for everyone, because listening to music is a very personal experience. However, scientists have recently begun to uncover information about what happens to people's brains when they listen to music and how it can affect their moods. As we think about the different things that cause us to be happy (or "gleeful"), music is an important topic to consider.

Music can invoke a variety of emotions based on the tones you hear and the spaces between those tones.

You experience music in many different parts of your brain. Your **cerebellum**, the part of the brain that helps govern movement, is also wired to the ears and produces some of our emotional responses to music. Next to that is the **temporal lobe**, where you comprehend melody (as well as taste, smell and the memory of those senses). The emotions associated with the melody you are hearing are experienced in another part of your brain, the **frontal lobe**. And the **pituitary gland**, no bigger than a pea and located at the base of the brain just beneath the

**hypothalamus**, will sometimes release endorphins when stimulated by the right music, which can make you feel great and help improve your physical health, as well.

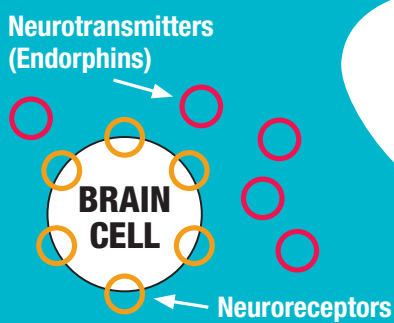


# Music gives your brain a workout!

Learning to read and play music can work wonders for your brain: Musicians' brains are actually more developed in certain areas (namely the left-hemisphere auditory regions) than the brains of non-musicians. But does listening to music help improve students' memories? The answer is still unknown. Studies on the "Mozart Effect" have produced conflicting results about the benefits of listening to music while learning. However, other studies have shown links between studying music and staying engaged and succeeding academically in school, and the emotional intelligence of musicians has been shown to be higher than average. More research is needed, but it is safe to say that if music is what you love doing, keep doing it! It's likely to help out your brain in many ways, some of which are still being discovered.

To find out more about the Mozart Effect, check out "The Musical Brain" page on the Neuroscience for Kids website:

[faculty.washington.edu/chudler/music.html](http://faculty.washington.edu/chudler/music.html)



# Endorphins

**Endorphins** are hormones occurring naturally in the brain that, when released, affect the way you feel emotionally. If you want to experience glee (one of the benefits of an endorphin rush), try one or more of the following things:

- 1. Get moving!** Exercise is one of the most well-known ways to produce endorphins. When you exercise, especially for a prolonged period of time, you get a natural high that gives you energy to keep going and lasts long after you have completed your workout.
- 2. Spice it up!** When you eat spicy food, your brain thinks your mouth is on fire and sends endorphins to help. So don't be afraid to add a chili pepper or two to your hot dog while you cruise the Puyallup Fair or take in a ballgame.
- 3. Enjoy the great outdoors!** Researchers have found that ultraviolet light can trigger endorphin production. But that's no reason to put your skin at risk — remember to lather on the sunscreen for your day at the Fair or the beach to reap the benefits of the sun without damaging your skin.
- 4. Have a giggle!** Well, they do say that laughter is the best medicine — in this case, the glee that causes you to giggle can produce even more glee. So find out what makes you laugh and enjoy a healthy dose of it every day!
- 5. Turn it up!** No surprise here, but listening to music you enjoy can cause your brain to release endorphins and help you feel more relaxed. So listen to a variety of music until you discover exactly what gets those endorphins flowing for you.

### Added benefits of endorphins

In addition to a change in mood, some scientists say that endorphins make our immune systems stronger, lower blood pressure and could even slow down our bodies' aging process. This is good news for people recovering from an illness. Some medical centers even include music in their patients' recovery. If you know someone who is sick or recovering from an illness, think about what music he or she might enjoy and surprise him or her with tickets to a concert or a mix CD. You might find the good deed generates a few endorphins of its own!

# Brain Teasers

- A **synonym** is a word that has the same or similar meaning to another word. For example, glee is a synonym for happiness. Make a list of all of the synonyms for happiness that you can think of, then share your lists as a class. You can use a thesaurus to double-check your work.
- Think of three things you can do this week that may help your brain release endorphins. Share these ideas with your family, and see if you can find a friend or family member to share the fun with you.
- Find a new piece of music to listen to. While you are listening, draw a picture or write down some words to help convey the emotions you are feeling. Afterwards, think about what aspects of the music brought forth those particular emotions.

# Resources

To learn more about this topic, search for "music and the brain" on any of the following websites:

[faculty.washington.edu/chudler/neurok.html](http://faculty.washington.edu/chudler/neurok.html)

[sciencedaily.com](http://sciencedaily.com)

[scientificamerican.com](http://scientificamerican.com)



Newspapers In Education

**The Seattle Times**

Inspiring Students To Learn

Find the Free Your Glee Teacher's Guide and learn about other NIE programs at [seattletimes.com/nie](http://seattletimes.com/nie)



# glee that's truly free!

For students, gate admission to The Puyallup Fair is FREE! The Fair offers tickets to most schools in Western Washington, so if you're a student all you have to do is ask your teachers or principal for your ticket.