

# FIND HAPPINESS IN YOUR HEADPHONES

Music is known to move your feet—but it's doing wonders for your heart and soul, too.

by Paula Felps illustrations by Shaw Nielsen



In his song “I Believe in Music,” Mac Davis wrote:

*“Music is love and love is music  
If you know what I mean;  
And people who believe in music  
Are the happiest people I’ve  
ever seen.”*

As it turns out, Mac’s observation might have been more than a songwriter’s musings; it now appears to be scientifically accurate.

In recent years, researchers from many disciplines have turned their attention to what music can do for our physical and mental health and why it seems to make us so happy. According to a study published in the journal *Psychology of Well-Being*, music is one of the most powerful and effective ways for creating lasting positive emotions. For many music lovers, the research is just confirmation of what they already know: Music doesn’t just sound good, it does good for your body and your brain.

While working the high-stress job of a police officer in Memphis, Tennessee, Susan Lowe used music as a way to let off steam and hit the “reset” button.

“In the fifth grade, I went to see The Carpenters,” Susan recalls. “I saw Karen Carpenter up there playing the drums and knew that’s what I had to do. I went home and told my mom I wanted to play the drums.”

She played in bands throughout junior high school, high school, college and beyond. When she joined the



**ABOVE: Susan Lowe plays drums at a festival in the late 1980s. LEFT: Susan poses before a recent concert in Nashville, Tennessee.**

Memphis police force in 1985, she began living a double life of sorts, working full-time as a buttoned-down officer and then, after hours, drumming for a cover band that played the songs of Madonna, Cyndi Lauper, Berlin and other chart-toppers of the time.

“It was a total disconnect from my professional life,” says Susan, who is now retired from the police force but continues to play drums. “It’s a great

outlet for stress; when you’re playing music, you don’t think about anything else. It’s just about the music.”

At 54, she says she still listens to music all day, whether she’s in the car, at home or taking a walk. As a child—in the days before portable music players—she would take her vinyl music albums with her on vacation.

“I would suffer emotionally if I didn’t have music,” she says. “It brings me peace. I identify with the music spiritually and emotionally, and I see things all the time that remind me of a song lyric. I can live without a lot of things, but I could not live without my music.”

She’s not alone. A 2015 Nielsen study found that 93 percent of the U.S. population listens to music regularly, spending more than 25 hours each week taking in tunes. We spend more time listening to music than we spend watching TV—and the good news is, music does more than just sound good;

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## HOW TO PUMP UP YOUR PLAYLIST

We all have “that song,” the one that instantly makes us feel invincible, like Rocky Balboa running up the steps at the Philadelphia Museum of Art. But did you know you can use that song to reset your brain?

“The chemical reactions our brain has to music are so powerful that I’d need a license to prescribe it,” says Joseph Cardillo, Ph.D., an expert in the field of mind-body medicine and co-author of *Your Playlist Can Change Your Life*. “Music uses the same functions that the brain uses to organize its behavior; that’s why it works.”

Like the brain, music uses rhythm, harmony, resonance, synchrony and dissonance; by influencing any of these, you can basically “train your brain” to think a certain way. Joseph says that means being able to reduce anxiety and depression, improve our emotional state and even speed up physical healing.

He says you can transform your go-to playlist into a powerful brain-changing soundtrack with a few simple tweaks:

**1. PICK SONGS YOU LIKE.** The more you enjoy the song, the more effective it is. He advises choosing songs that are all “favorites.” It’s helpful if you don’t like one more than the others.

**2. START CALM.** Think of this as cleansing your palate before a tasty meal, only you’re calming a stressed-out mind to prepare it for a joyride. Start with a song you like that has no more than 100 beats per minute (BPM), then break into more upbeat songs. (To find out a song’s BPM, type the title and “beats per minute” into a search engine.)

**3. MAKE AN ARC.** After that calming kickoff, ramp up to songs that have 120 BPM, then keep increasing to 130 BPM, then 140, and so on, like in a movie soundtrack where the music swells.

**4. ARRANGE THE SONGS FOR IMPACT.** “Maybe you want a certain song to be playing as you walk into the office or when you hit a particular point in your morning run,” Joseph says. “But remember it needs to be over 100 BPM to create the rhythm your brain needs to be more alert.”

**5. ATTACH EMOTION TO IT.** Whether it’s a song you and your college buddies killed in karaoke, or the song played as the first dance at your wedding, songs with positive memories stimulate the emotional part of the brain. “Music changes the electrical activity in the brain, but when you attach emotions to it, it also changes the chemical secretions into your bloodstream, so it’s like giving your body a double whammy.”

“Basically, what this lets you do is turn your iPod into a neural feedback device,” Joseph says. “You can put on that playlist and you can feel it reshaping the way your brain operates. It gives you a whole new way of seeing the world.”

—Paula Felps



it also can have a positive, powerful effect on our bodies and our brains. The more researchers learn about what it does for us, the more hopeful they are about how it can be used.

## ALWAYS ON MY MIND

Although no one is quite sure just how large a role our connection to songs plays in our happiness, it’s obvious that the connection remains for many years. Research from Alex Korb, Ph.D., an adjunct assistant professor of neuroscience at UCLA and author of *The Upward Spiral: Using Neuroscience to Reverse the Course of Depression*, shows that listening to music from the happiest times of our lives can instantly change our current states of mind. He says the music serves as a reminder of the environment we were in during that happy time, while our brain’s hippocampus connects us with it emotionally.

“I don’t know how I’d make it through Sunday night without them,” says Gail Leavey, nodding toward the band that plays each week at a Nashville, Tennessee, restaurant. “This is the kind of music we’d listen to when we were young, and it brings back so many memories.”

The Nashville Sunday Jazz Band has been performing weekly since 1992; Gail has been there since the first show. For years, she and her husband only missed a show when they went out of town; after his death three years ago, she continued the weekly tradition, bringing his memory with her to every show.

At any given time, the band’s rotating lineup can include music session legends, symphony orchestra members and jazz faculty from one of the area colleges. They play Dixieland and early swing, which for 97-year-old Gail is a treat for the ears.



“There aren’t a lot of people who still understand this music,” she says. But inside that room on Sunday night, where the median age is well into the 80s, there’s a youthful energy that seems to swell with the music. Most, like Gail, are regulars; they’ve become friends over the common bond of music from the turn of the century—“the turn of the last century, not this one,” Gail points out with a laugh.

“When we’re here, we forget our age,” confesses Gail’s friend, Billie Stuck, who turned 98 in May. “This kind of music was always my thing. It’s the beat, the rhythm—it’s a way to express yourself.”

The two women still dance, now with each other instead of their husbands, letting the music take them back to another time and place.

“It’s like ‘Brigadoon,’” says Ellen Pryor, referring to the story of the enchanted city that would rise seemingly out of nowhere.

PHOTOGRAPHS: CINDY BALDHOFF

ABOVE, FROM LEFT: Billie Stuck, Gail Leavey and Byrd Helguerra are regulars for the Nashville Sunday Jazz Band. Waving white towels is their way of cheering on the musicians.



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Ellen began attending the weekly jazz sessions when her husband, Bill, was struggling with Alzheimer's. Bill was engaged by the music, and she found a caring community of music lovers who welcomed and supported the couple.

When Bill died five years ago, the band played at his wake; it also has performed at anniversary parties and even weddings for this devoted group of followers.

"It's become an extended family that was brought together because of the music," says Ellen, who drives several of the women to the performance each week. "It's hard to explain until you see it for yourself."

To understand why music has such an effect, scientists have explored what happens from the moment it reaches our ears. While there's still much to be

learned, one thing that has become clear is that it's an automatic, not a learned, response. Dr. Jon Lief, a Massachusetts-based psychiatrist who specializes in neurology, says that music—whether we're listening to it or playing it—stimulates all of the brain's regions responsible for emotional processing.

Babies as young as 5 months old show emotional responses to happy music and by the time they are 9 months old, they can recognize a sad song, and it affects their mood.

As we get older, that connection to music continues growing stronger. Jon says that's because in addition to the alluring sound of the music itself we have emotional connections—both positive and negative—associated with it.

*Late Show* host Stephen Colbert, in his tribute to Glenn Frey during a show

earlier this year, illustrates this concept well in recounting his first slow dance ever to the Eagles song "Desperado."

"'Desperado' is the perfect last song at an 8th grade dance when you have danced with no one," Stephen said.

A girl he knew said that she loved the song, which gave him the courage to ask her to dance and led him to take a "small, very small step toward manhood."

As Stephen recounted on his show, "This was the first time I've ever had my arms around a girl in my entire life." He called the dance "one of the sweetest, most beautiful experiences of my life...I just want to thank Glenn Frey for what he gave me."

Ever wonder why you tear up during some songs, while others might cause

chills to run up your spine? It's all in your brain.

## THE SOUND OF MUSIC

Daniel Levitan, Ph.D., a cognitive psychologist who heads up the Laboratory for Music Perception, Cognition and Expertise at McGill University in Montreal, is a former rock musician and music producer who's won 17 gold and platinum records and has worked with such artists as Santana, The Grateful Dead and Joe Satriani. His 2006 book, *This is Your Brain on Music*, was the first to delve into the intersection of neuroscience and music.

Daniel explains that listening to music releases certain chemicals in the brain, such as dopamine, that

"feel-good hormone" that gets a boost every time you hear a song you like. It may help explain why we just can't seem to get enough of certain songs and why they have the same beneficial effect on us regardless of how many times we listen to them. It's not just the memories we connect to that certain song; it's the way our brains innately embrace the music.

For Susan, hearing music from the '80s is a double whammy; not only does it bring back memories of her youth, but she has fond memories of playing those songs on stage. At a recent Cyndi Lauper concert, she found herself watching the drummer.

"We never played at that level, of course, but we played songs like 'She Bop' and 'Girls Just Want to Have Fun,'" she says. "When I go to these shows, it really takes me back to some

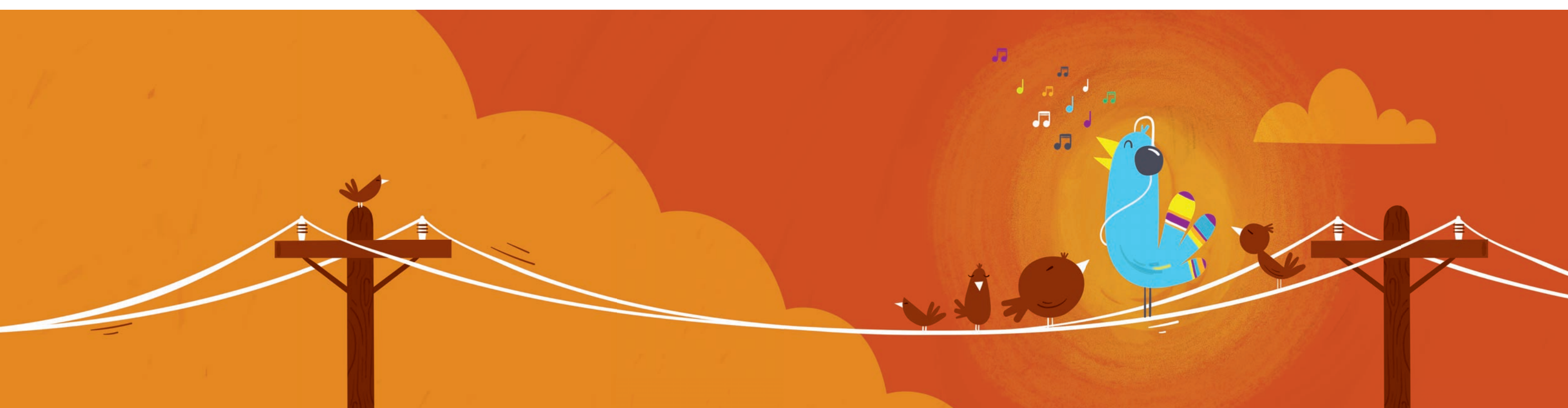
moments in my life that were really special. It makes me smile."

## YOU RAISE ME UP

Armed with a growing dossier of studies showing we are hard-wired to respond to music, researchers are now looking at how to use that information to do more for our minds.

A review of studies published in the journal *Nature Reviews Neuroscience* offers repeated examples of how music is linked to improved skills in memory, language, speech and focus.

What's more, "There are entire populations of people that can be helped by music," says Dr. Ron Eavey, director of the Bill Wilkerson Center at Vanderbilt University Medical Center in





## SO HAPPY TOGETHER

As much as music affects us individually, it becomes even more powerful when shared with others. Data from a number of top brain researchers confirms that listening to music with someone else can release prolactin, a bonding hormone. And singing together releases oxytocin, which increases feelings of trust.

It even can help strengthen the immune system. A study by Tenovus Cancer Care, a British cancer charity, and the Royal College of Music, published earlier this year in the journal *ecancermedicalscience*, showed that cancer patients who sang in a choir for just one hour showed significant reduction in stress hormones such as cortisol and improved moods.

They also registered an increase in the amount of cytokines, a protein found in the immune system that can boost the body's ability to fight illness. Improved mood has been linked to lower levels of inflammation, which is often associated with serious illness, and the results were so compelling that Tenovus is now conducting further studies to see what kind of long-term rewards can be reaped when patients spend time singing with others.

Of course, you don't have to be ill or depressed to benefit from sharing music with others.

"There are so many ways that music brings us together," Jon says. "I don't know exactly how it works, but it does. When you're grooving on music together, there are synchronous brainwaves that occur. Music can bring people together through shared experiences or a shared song."

In a live music setting, those feelings and forces can feel even more intense. Even though she no longer plays in a band, Susan says that music remains an important part of her life; she still plays the drums ("for fun and exercise") and takes in about 60 live shows a year.

Nashville. The center is the home of a research hub that studies how music interacts with the brain and is looking at how it might possibly help heal everything from autism to Alzheimer's to post-traumatic stress disorder and pain.

They aren't alone in their efforts; a Boston-based company named The Sync Project, a global collaboration of scientists, engineers, researchers and musicians, is looking at how music can be used to treat such things as schizophrenia and movement disorders. For one of its first studies, The Sync Project is examining how music can help athletes improve performance during high intensity interval training.

After Dr. Christopher Duma, a California brain surgeon, saw improvements in patients with Parkinson's, Alzheimer's and autism when he began using music as a therapeutic tool, he created The Music-Heals Project.

Partnering with Mike Garson, former keyboardist for David Bowie and grandfather to an autistic child, they composed *Symphonic Suite for Healing*, which in addition to being used clinically is being performed with symphonies to raise awareness about the healing power of music.

As more evidence of music's healing power is discovered, researchers, scientists, doctors, psychologists and teachers are among those looking at ways to apply the findings and delve deeper into the secrets locked inside the notes.

"Seeing live music puts me in a different place, mentally," she says. "You're in the moment and just enjoying what's happening. I'm watching the performers and the way they interact with each other. It's a complete escape."

She has made lasting friendships at shows, both with the performers and with other fans. And she carries the memories with her.

"One time during the late '80s, we opened for Berlin, and during their set, one of their keyboards caught on fire," she recalls. "It was like this unexpected pyrotechnic show!"

"I think about that when I listen to their music, because it really stands out in my memory. We're going to see them [on tour] this year, and having that experience makes me look forward to seeing them even more."

Jon says that the pre-existing history we have with certain songs amplifies the effects of listening to them at a concert; we then increase our connection with them each time we experience them differently.

"When you go to a concert, you have memories that you connect with those songs, you know the history of the band, you're hearing music and your body is moving. It has a broad, emotional meaning, and it's involving all these different parts of the brain at the same time."

Jon adds that, with so many benefits—both known and yet to be discovered—music's unique role as both a physical and emotional healer should be explored and enjoyed more fully.

"It's one of the most powerful spiritual forces out there for bringing people together," he says. 🎵

# CRANK IT UP

## WHEN THE MUSIC PLAYS...



- ☀️ People who listen to music are 11% happier than those who don't.
- 🏠 In homes where music is played out loud, occupants are 15% more likely to laugh together.
- 🧹 83% of people said listening to music made doing chores easier.
- 💻 33% of people found that listening to music made being at work more enjoyable.
- 🍴 Families who play music out loud in the house eat an average of 5.6 meals together each week—about one meal more than households without music.
- 👥 Households who play music during meals averaged a 160% increase in time spent together at the dining table.
- 📱 62% of people report that their favorite music makes them feel happy.
- 🌸 People who listen to music report feeling 16% more positive emotions and 13% less negative emotions.

SOURCE: Music Makes It Home study (Apple/Sonos 2016)