



BELTING OUT HOME ON THE RANGE

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She had a hunch that belting out Home on the Range could speed their recovery. But Janice Richman-Eisenstat, a lung specialist in Winnipeg, worried that her patients were too weak to sing.

Blocked airways and ravaged lungs had forced them into the in-patient program at Winnipeg's Health Sciences Centre. A few steps left them breathless; they dragged oxygen tanks and inhalers to appointments with language pathologists and dietitians and spiritual counsellors. It was the physiotherapy that had their doctor intrigued.

Maybe they would run out of air after do-re-mi, Dr. Richman-Eisenstat thought. But could singing – with its emphasis on deep breathing, the diaphragm and good posture – have the same health benefits as breathing exercises?

It did, she soon discovered – with a bonus. “I have never seen anybody tapping their toes during breathing exercises. Or laughing,” she said.

Singing has long been touted as good for the soul. Now, a growing body of research is showing it can also help heal the body.

Scientists and medical professionals across the globe are reaching conclusions similar to those of Dr. Richman-Eisenstat, who now prescribes singing to some patients.

In Europe, patients with Parkinson's, Alzheimer's and other neurological disorders are forming choirs to help strengthen their throat muscles. In New York and elsewhere, stroke patients are using melodies to facilitate their speech recovery. Researchers in Vancouver are exploring how music affects the brains of patients with bipolar disorder and depression.

Starting this month, much of that research will be co-ordinated in Canada. More than 70 researchers from over a dozen countries will join forces through a consortium called Advancing Interdisciplinary Research in Singing (AIRS). Based at the University of Prince Edward Island, the program has secured federal and private funding for research projects over the next seven years.

“Although there have been some researchers working on one or another aspects of singing, there's never been another opportunity to bring these researchers together in an interdisciplinary way,” said Annabel Cohen, a professor of music psychology and the head of AIRS.

The researchers will collaborate on research projects that fall under one of three umbrella topics: development of singing ability; the connections between singing and learning; and the enhancement of health and well-being through singing.

But it is that last domain that many researchers say is generating serious interest from a growing number of medical researchers.

“The separation of music and health is not necessary,” said Bradley Vines, a researcher at the Institute of Mental Health at the University of British Columbia, who has studied how singing affects the brains of stroke patients at Harvard.

“I think that music can be used as a powerful tool towards preventing illness. ... So in the future a stroke specialist may recommend that a person join a choir. That could be on the list of normal things to recommend.”

The psychological and spiritual benefits of singing and listening to music have long been recognized, and most rehabilitation hospitals have music therapists on staff. But recent research has delved deeper into how music affects the brain. Some of those findings have been popularized through bestselling books

such as *This Is Your Brain on Music* , by Montreal neuroscientist Daniel Levitin, and Oliver Sacks's 2007 book, *Musicophilia: Tales of Music and the Brain* .

There is a growing body of clinical evidence suggesting that music can play a key role in improving motor function, communication and even cognition for people with a broad range of brain-based conditions, including Alzheimer's disease, autism and Parkinson's disease.

For example, melodic intonation therapy, in which musical exercises are used to improve speech, has proved effective for patients with aphasia, a disorder that results from damage to portions of the brain responsible for language.

Dr. Vines was part of a team of Harvard researchers who showed that singing seems to engage the brain's right hemisphere – which is involved with speech – and this may explain why melodic intonation therapy can also be an effective type of speech therapy for patients who have suffered a stroke.

Italian scientists have demonstrated that singing can lead to improvements in the physical stiffness of patients with Parkinson's disease.

While those findings are slowly coming into use in clinical settings, some patients aren't waiting for a doctor's prescription.

Sarah Benton, who was diagnosed with multiple sclerosis more than 20 years ago, is part of a choir called Sing for Joy whose members all suffer from a degenerative neurological illness. The choir, started four years ago by a woman with Parkinson's disease, now meets once a week in London, England. The group warms up with strength exercises and then belts out tunes, from Carole King to Euro-punk.

While scientists haven't monitored Ms. Benton's progress, the 60-year-old retired journalist says her voice feels stronger (weakening of the voice can result from her disease). But the benefits are as much spiritual as physical, she said.

“You feel invigorated. You feel like you're using your body,” she said. “If your body is stiff and spasmodic, you sit around quite a lot because you don't trust it. ... [Singing is] like having some sort of drug boosting you.”

In Southern Ontario, a barbershop quartet called the Graytones have been harmonizing together for over 13 years. All four men, who are in their 70s and 80s, have been singing individually for decades longer than that.

They're all pretty healthy, and they don't know if that's the result of good genetics, or of singing. But they love the workout, the chance to hang out with their buddies, and to get up in front of a crowd.

“I would say a couple of things,” said Sam McCommish, 74, the group's leader. “When you're happy, you're probably healthier. And it's hard to be sad when you're singing.”