

*Odds and ends - themes  
and trends*

**by Tom Doch**

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*Music, especially by Bach, helps reduce stress*

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**By Helen Altonn**

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**SUMMARY:**

**Music helps regulate brain activity and the function of body systems.**

The music of J.S. Bach is especially effective for helping the brain function in a balanced way.

Listening to music can relieve pain and stress, calm the heart rate and blood pressure, affect physical responses for healing and growth, and stimulate creative thinking. Calming music should have pleasant cadences, and the tempo should be between 62 and 72 beats per minute.

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"If we utilize music that slows down the stress hormone, we then can help with things such as development of ulcers, diarrhea, even Crohn's (chronic inflammatory) disease and irritable bowel syndrome," says neuromusicologist Arthur Harvey,

Music, particularly classical compositions by Bach, relieves stress, says a **University of Hawaii** music professor.

"Of all the music we tested in medical school with patients, colleagues and others, Bach's music consistently made the brain work in a balanced way better than any other genre," said **Arthur Harvey**, who is also an internationally known neuromusicologist.

Loudness, speed or tempo of music, the degree of dissonance and tone quality are primary elements of music that can affect health, behavior and emotions, Harvey said. He created a recording called "Bach for the Morning," intended for nursing home and hospital patients who "didn't wake up very nicely.... Each piece gets a teeny bit faster, so it is a very helpful way to wake people up." He also has created a "Handel for Sleeping" recording and softly played Handel's music during a recent interview in his office at Calvary-by-the-Sea Lutheran Church, where he is musical director. Harvey has taught for 45 years and studied music as a force in education, religion and health. For the past 20 years, he has been interested in learning more about "why and what happens" when music is played. Therapeutically, he said, music "can be a tremendous intervention." It can relieve pain and stress, calm the heart rate and blood pressure, affect physical responses for healing and growth, and stimulate creative thinking, he said. Hawaiian music, for example, has orderly and predictable patterns that tend to be calming, he said.

"Someone like brother Iz (the late Israel Kamakawiwo'ole), besides the emotional content of singing and beauty of his voice, the majority of his songs are near resting heart rate (62 beats a minute), in the lower frequency."

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Harvey created a recording of Hawaiian songs with a heartbeat tempo, "Island Sounds Healing Heart," to help care for senior Hawaiians with Alzheimer's disease and other dementias. It was done for **Alu Like's Kumu Kahi** Department.

Cadences in the recording stimulate "feel-good chemicals" and physical systems that reduce effects of stress, he said.

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Last year, Harvey tested the effects of Hawaiian, Japanese and Chinese music with a heartbeat on 37 volunteer patients, 50 and older, of cardiologist Dr. Pon-Sang Chan. He compared cardiac responses to recordings with heartbeat only, with heartbeat and keyboard performance, with heartbeat and vocal performance and heartbeat with both keyboard and vocal performances. The object was to see if music could be used as a relatively inexpensive technique to regulate the heart rate of cardiac patients, who tend to be highly stressed, Harvey said. All recordings helped, he said, but selections combining heartbeat, instrumental and vocal performances were most effective, calming and regulating the heart rate from 62 to 72 beats a minute. Joseph Ruszkowski, UH-Manoa music professor; Michelle Wong, of the Integrative Health Care Consortium; and Kathleen Cramer Baker assisted with the project.

Harvey presented the results in June at a symposium of the International Society on Music in Medicine, founded by two anesthesiologists in Hamburg, Germany.

He annually discusses how music can enhance health and learning at the Hawaii Medical Service Association's Akamai Living program, sched-

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uled from 8:30 a.m. to noon May 22 at the Hawaii Prince Hotel. Harvey sings and plays 35 instruments, develops recordings and videos for therapeutic use and is a popular speaker at workshops and seminars.

He is also a prolific author, writing about "Music and the Brain" and related topics. "He is so multitalented," Ruzkowski said.

"He has a wealth of knowledge in so many areas and is an unbelievably good piano player. A lot of people around here (at UH) say he was a musical prodigy."

Harvey said UH-Manoa offers music courses and workshops but not music therapy and training, which he would like to see integrated into the medical school's complementary and alternative medicine department. He was involved in establishing Sounding **Joy Music Therapy Inc.**, a nonprofit organization, to educate the public about music therapy, provide clinical services and encourage research in therapeutic music. Among his new projects, the neuromusicologist is creating a recording of spirituals with a heartbeat for hospice patients and caregivers and a recording of Japanese lullabies with a heartbeat. Although he makes all kinds of music, he said he probably likes classical the best. "Sacred is second and I love old-time music, the '20s and '30s. I play it in hospitals regularly." But some music should be avoided, he said, pointing out excessively dissonant, loud and repetitive music can affect thinking, behavior and hearing. "And if you're impacted by emotional pulses, you tend to behave in a way that's not always rational." Music has been his "passport to the world," Harvey said, taking him to every state and 36 countries and places like the White House and Morocco's palace.

**OUTDOORLINKS:**

Professor Harvey Promotes the Healing Power of Music

<http://www.hawaii.edu/ur/newsatuh/archives/030414/people.htm>