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SCALING BACK

Pianists' injuries are Comeau's forte. He favors unconventional warm-up exercises to prevent strain

JONATHAN HAYWARD FOR TIME

The Finger Fixer

Gilles Comeau [The University of Ottawa]

IN 1965 LEON FLEISHER, THE CELEBRATED American pianist, retired at age 37, when, seemingly without explanation, he could no longer move two fingers of his right hand. In 1980 doctors finally diagnosed dystonia, a neurological disorder that has plagued many other professional musicians.

Gilles Comeau, a music professor at the University of Ottawa, says he knows what caused it. He says instructors inadvertently induce injuries such as tendinitis, carpal-tunnel syndrome and the hand-crippling dystonia through archaic and unresearched teaching methods. Comeau, 44, runs the Piano Pedagogy Research Laboratory, which opened in January. It's the only lab in the world devoted to studying piano instruction, with a core focus on health.

The lab's early research has revealed that even basic exercises can lead to injury years down the road. As a youngster in small-town northern Ontario, Comeau was taught to warm up by performing scales. Many students do the same today. "It's like telling someone to sprint before they start jogging," he says. Using thermal-imaging cameras, the lab was able to visualize a high degree of heat in the playing arms of students, indicating stress. Comeau says players should start with slow, controlled movements before playing scales.

For physicians who treat musicians, the lab is confirming what they have long suspected. "Academics are now coming forward because their heroes, like Fleisher, have been affected," says Dr. John Chong, medical director of the Musicians' Clinic of Canada, who treats members of the Toronto Symphony. "It is fantastic this lab is looking at biomedical practice habits."

The lab has teamed up with other departments at the university to use video imaging to obtain accurate pictures of the biomechanics of playing. Video is fed into software that can detect bad posture or excessive finger exertion, for example. Comeau says it's tragic that people stop playing because of an injury caused by the very thing they love to do. In Fleisher's case, there's a happy ending. Botox injections have enabled him to play again. Yet 61% of professionals and 45% of students suffer pain, according to a study from McMaster University. What's more tragic is that educators have been part of the problem. "As piano teachers, we were never trained to deal with it," says Comeau. This music professor, at least, is orchestrating a solution. ***—By Chris Daniels***