

Crescendo, Interlochen Center for the Arts
OCT 2009

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10/12/09

What does physics have to do with teaching the violin?

Everything, if young musicians want to develop healthy playing techniques and practice skills in a healthy physical manner. After a year long sabbatical, Hal Grossman, Instructor of Violin, is prepared to blend the science with the art in his teaching.

Grossman now has the distinction of being the only violin instructor nationally certified in somatic integration work for high school students and teachers. Somatic Integration is basically the brain's awareness of the natural patterns of movement for the muscles and bones. This knowledge, he feels, will give a unique and comprehensive approach to

teaching his students how to play the violin in a healthy way.

“The complaints of aches and pains from students as young as 13 years old have been a real concern for me,” says Grossman, “and that’s why I pursued this.”

Now he has the tools to understand them better. The body is designed for movement and likes to move freely in space. Our muscles and bones allow for this. Repetitive movement, sustained position and taking a muscle beyond its barrier are the three single causes in muscle disorders that result in chronic pain and dysfunction. Musicians can have all three. They over practice causing excess repetitive movement; the action of holding the instrument is sustained, and incorrect alignment can take a muscle beyond its barrier.

Understanding the external and internal forces acting on muscles and joints, and the anatomy of how

muscles originate and attach to bones and the relationship of muscle movement is the science that allows for the freedom to pursue the art.

Tension, force, gravity, support, and stability, as well as emotional stress are the external and internal forces that affect the health of the muscle and skeletal systems.

“The growing adolescent body needs a more specialized awareness because aches and pains can be the result of shortened muscles attached to bones that are still growing. I can now think and analyze about what is going on and what the implications of persistent pain means,” says Grossman.

But even more important, by applying somatic integration and basic anatomy understanding to violin playing, he can teach his students how to avoid injuries such as tendonitis and carpal tunnel and tension related headaches.

“Prevention is always the preferred treatment,” he says.

The sabbatical also afforded him knowledge in a different and unexpected way. He wasn't expecting to be a college student but when he decided he needed better understanding of anatomy, he enrolled in course work at the University of North Carolina in both Biomechanics and Human Anatomy. Suddenly he found himself in class with students half his age. It was being a student and not the authority that opened a whole new sense of compassion with his students.

“I can now relate to what it is like having to juggle class schedules, studying and completing assignments on time and still finding time to practice my instrument,” he says.

A performing and touring musician as well, he believes performing is indispensable to teaching.

“You must have the knowledge of what it feels like to stand up on stage,” he says. “You have to be able to relate to what you’re training your students to do”

And now Grossman will be like his students, a better and healthier player.