Customized Violin Chinrests

Gary Frisch, of Gary Frisch Violins in Falls Church, VA, and Lynne Denig, violin and viola studio teacher in Fairfax, VA, have teamed violin making skills and teaching knowledge to find what constitutes a good-fitting chinrest.

Their research began in the Fall of 2005 with observing three studios of about 50 violin students (research on viola and fractional-sized violins is pending), taking photos and measurements, and trying out a series of chinrests on these students to chronicle what kind of chinrest fit whom, and how quickly technique might change once a student is fitted with an appropriate chinrest.

Their initial findings were presented at the 2006 ASTA conference in Kansas City, KA, with additional presentations of their findings at the 2006 VMEA conference in Hot Springs, VA in November and at the 2007 ASTA conference in Detroit at the pre-conference session on musician health.

The premise of the research is that if a student is given a chinrest that fits the contour of the jaw and the height of the neck that some playing problems are fixed automatically, and usually problems that teachers try to fix with shoulder pads of various heights, densities, and positionings. While all teachers know that they must keep after their students about posture and positioning, an element of nagging, then, is taken out of teaching when students are fitted with a good-fitting chinrest.

Photos below show “before” and “after” shots. The “after” shots were taken within minutes of being given the newly-fitted chinrest. Note the difference in the level of the strings (or “scroll pitch”, as the researchers have termed it), the most immediately observable “fix” when a student is given a good-fitting chinrest.

Strings horizontal to the floor are an essential to fine tone. Characteristics of playing problems when strings are kept below horizontal:
1. Neck, head, and back muscles overwork as they try to “catch” the violin as it slides towards the floor and towards the center of the body.
2. The bow hand overworks as it tries to catch the bow as it slips to the fingerboard due to gravity’s pull on the bow.
3. Because the body’s plane is less than perpendicular to the floor, left hand, arm, and back muscles work unequally. Therefore, vibrato movements and shifting are done with more effort.
4. Right arm is forced to overwork in tone production because the left side does not balance the bow’s weight.
5. Clenching of the head on the chinrest (and bacteria build up on the chinrest) as it tries to stabilize the violin causes bruising and scarring of the neck.
Photo 1- “Before”. The student’s string level is pitched below horizontal by 10 degrees.

![Photo 1](image1.png)

Photo 2- “After”. The student’s violin was placed automatically so that string level was horizontal.

![Photo 2](image2.png)
Photo 3- “Before”. The violin strings are 6 degrees below horizontal.

Photo 4- “After”. The violin strings are now horizontal.

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