

Comfort and Good Playing Health through Chinrest Fit

Gary Frisch, of Gary Frisch Violins in Falls Church, VA, and Lynne Denig, violin and viola studio teacher in Fairfax, VA, 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 and continuing later with viola and fractional size instruments. They took photos and measurements, and tried 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 findings have been presented at national conferences of the American String Teachers Association and Performing Arts Medical Association since 2006 and at Indiana University, the University of Maryland, and the University of Texas-San Antonio each year since, and on their web site, www.chinrests.com.

The premise of the research was that if a student is given a chinrest that fits the contour of the jaw and the height of the neck and a posture and instrument positioning process that many playing problems are fixed automatically. Normally, such problems are dealt with through shoulder pads of various heights, densities, and positioning. Frisch and Denig found that rigid shoulder pads increased undesirable angles in the neck and shoulders. They also saw that many younger students, particularly boys ages 11-13, were fitted over their neck heights. Frisch and Denig believe that neck and shoulder problems now are the basis for physical problems later.

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 the head 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 2- "After". Violin droop (or scroll pitch) was fixed automatically with the new chinrest.



Photo 3- "Before". Note how exaggerated the head tilt and shoulder lift are with the hard shoulder pad. Shoulder lift is 28 degrees.



Photo 4- "After". After measuring the student for a correct height of chinrest and taking away the hard shoulder pad, note the difference in head tilt and shoulder lift.

