



BERNSTEIN VIOLINS  
*Bowed Instrument Sales and Repairs*

705 S. 45th St.  
Boulder, CO 80305

## Care And Feeding Of Bowed Instruments

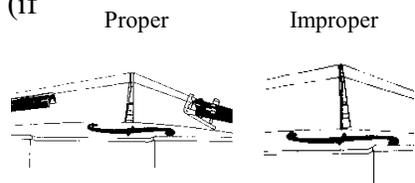
**After each use, the instrument should be wiped down with a soft cloth** to remove whatever rosin has been deposited during play. Wipe off the top surface around the bridge, the strings, the lower end of the fingerboard. Rosin left on an instrument for long periods of time begins to cake on the surface and mix with surface dirt that settles on the instrument. This build-up must be removed by a professional. Over time the rosin will also mix with the surface varnish causing damage, and making it costly and time-consuming to repair. The cloth can also be used to cover and protect the top of the violin or viola if the case did not come with a blanket. If you are so inclined the bow stick can be wiped down as well.

**Loosen bow hair after each use.** Leaving tension in the bow for long periods of time when not in use causes the stick to slowly lose its camber, or characteristic bowed quality. The Camber is originally put in by the bow maker by using heat and applying tension. A bow that has lost some of its camber will not hold the bow hair under proper tension for the desired playing quality.

**Do not use too much rosin on the bow.** This is a mistake that a lot of beginning students make. Rosin need not be applied every time an instrument is played, and in fact should only be applied when the bow is no longer pulling the strings in a satisfactory way, that is, when it is slipping on the strings. Too much rosin creates a buildup on the bow hair that is counter-productive. When rosin is over-applied, the bow hair becomes slick and will no longer pull the strings properly. The result of over-applying rosin is that the bow needs to be re-haired far more often than would be necessary from worn-out hair alone.

**Change strings two at a time.** If you are changing a complete set of strings, change them two at a time (two upper, and two lower.) Do not remove all of the strings at once because the bridge will come down and the sound post can fall down as well. Sound posts are spruce dowels (the top of the instrument is also made of spruce) that are custom fitted. The post is placed in a very specific position inside the instrument, and the fit is such that the surfaces on both ends of the post completely touch the inside of the instrument's top and back. When inserted, it is under only slight tension but can (and should) easily fall down until the strings are tightened. If you are uncertain about changing strings, I would be happy to show you how to do it properly.

**Pull the bridge back if it tips forward.** The back side of the bridge (facing the tailpiece) should be at a nearly 90° angle to the top. The front of the bridge (facing the fingerboard) is more curved, and so will almost cause the bridge to *appear* to be leaning backward. Sometimes tuning the strings will cause the top edge of a bridge to tip slightly toward the fingerboard, while the feet of the bridge remain in position. This causes the bridge to warp and eventually break, requiring that a new custom-fitted bridge be carved. If the bridge has tipped forward, gently pull it back being very cautious not to go too far (if the bridge falls down with the strings under tension, the fine tuners on the tailpiece will gouge the top.)



**Strings that break.** Replacing strings is part of the cost of playing a bowed instrument. Strings are never (or rarely) guaranteed. If strings are breaking somewhere in middle, and not at either end, then that is simply normal wear and tear. Strings that break or unravel at the nut or bridge bearing points, can be doing so as a result of a sharp spot, of an excessive string angle, of an irregular bearing surface, or of some combination of these three. If you are experiencing this sort of a problem, bring the instrument in to be looked at.

**Buzzing** can be a problem with the bridge, strings, fingerboard, fine tuner, tailpiece, nut, saddle, loose purfling, a loose bit of glue, a crack, an opening, a loose patch from an old repair—in short almost anything. If you can't find it, take it to a repairperson.

**If the neck comes loose or the bridge falls down, loosen the strings immediately** and take the instrument to a repairperson.

**Cracks** should be repaired right away. If they are left open, the opening can become distorted and dirty, and so more costly to fix.

**Pegs** are designed with a tapered one-to-one fit that is then lubricated for smooth, even tuning. If you are fighting with the pegs, it is either because they don't fit, or they are not lubricated properly. Poorly fitted pegs can sometimes be corrected, otherwise they need to be replaced. If the pegs tend to want to pop out during or after being tuned, then they do not fit properly. If they do not turn smoothly, then either condition could be present.

#### **DON'TS:**

**Do not leave your instrument in a hot or cold car or car trunk.** Extreme temperature changes can cause cracks in the wood, or the neck angle to shift. Heat can cause damage to the varnish. If conditions are such that you wouldn't leave a pet in the car, then don't leave an instrument either.

**Do not leave an instrument or bow on a chair.** It is easy to forget that it is there and to sit on it.

**Do not leave an instrument in the case with the lid closed and the case latches open.** It is easy to forget that it isn't latched, and to then pick it up and have the instrument fall out.

**Do not lay an instrument down half-in and half-out of a case.** The case lid can fall down and damage the instrument. If you put an instrument down, the best place for it is fully inside of a case with the lid open, or inside of a closed and latched case.

**Do not pull broken hairs out of your bow.** Pulling a hair out of the frog or tip ends of the bow can loosen more hairs. It is best to cut the loose hair off using a scissor, knife, or nail clipper.

**Do not lean a cello or bass up against the wall.** They can fall over when you least expect them to, and the damage is usually costly.