CARRIAGE HOUSE VIOLINS
of Johnson String Instrument

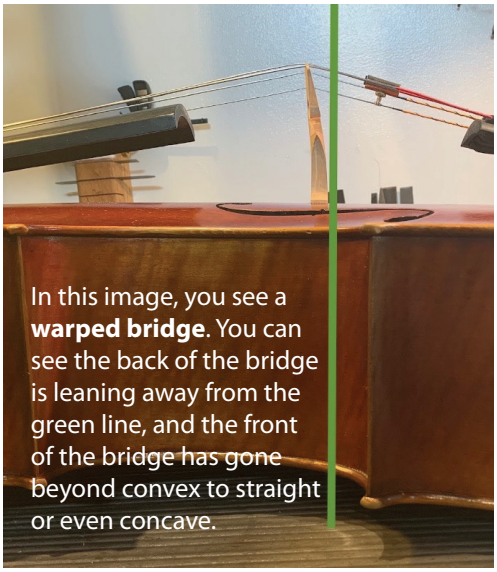
# Caring for Your Instrument

## CHECKING YOUR BRIDGE FOR STRAIGHTNESS & WARPING

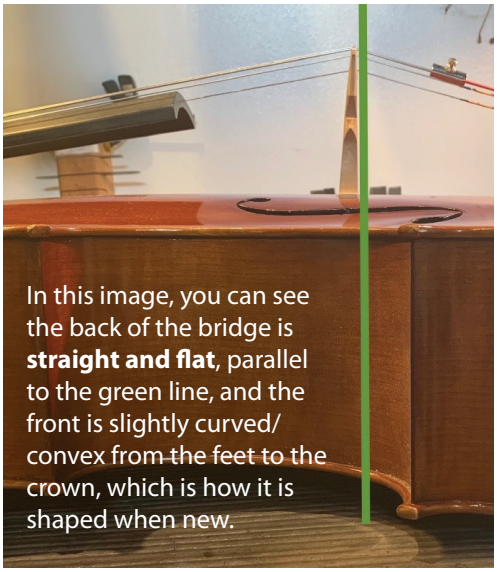
Checking your bridge for straightness and correcting any leaning is important to prevent your bridge from warping and eventually breaking. Here are some steps to help you assess your bridge position. *Please note: While these images depict a cello, this information is applicable to both violin and viola as well.*

### STEP ONE: Check for straightness

When a bridge is newly carved, the **back** of the bridge (towards the tailpiece/endpin) is carved flat, and the **front** of the bridge (towards the fingerboard/scroll) has a slight curve from feet to crown.



In this image, you see a **warped bridge**. You can see the back of the bridge is leaning away from the green line, and the front of the bridge has gone beyond convex to straight or even concave.



In this image, you can see the back of the bridge is **straight and flat**, parallel to the green line, and the front is slightly curved/ convex from the feet to the crown, which is how it is shaped when new.

You can also see in both photos the **green line**, which is parallel to the rib (side) corner joints, and perpendicular to the gluing surface of the top plate to the ribs. These reference points can help when you are looking at the bridge to determine if it is straight.

### STEP TWO: Check the feet

Looking at the bridge feet, you can check from both front and back to see if the bridge is either up on its **"toes"** or back on its **"heels."** By looking carefully at the bridge feet where they meet the varnished surface of the top, you can see gaps that would indicate the bridge is leaning, and may be able to catch it before it starts warping.

The bridge in this image has obvious gaps and is leaning forwards on its toes. If left this way under string tension, the feet will move until they connect flat with the top again, the top will stay where the strings are holding it, and the result is that the bridge will warp.

These bridge feet in this image are resting solidly on the top surface with no visible gaps. If the feet of your bridge look like this on both sides, it does not mean that your bridge is not warped, but rather that it is not leaning. Be sure to check the side view for straightness as well.

**If you notice your bridge leaning and are not comfortable moving it, our luthiers can help adjust it so it stands straight. If your bridge is warped, it will need to be either straightened or replaced.**