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*Growing Pains: Assessing and Guiding Set-Up  
in Pre-Collegiate and Collegiate Violin and  
Viola Students*

**Daniel Mason**

Professor of Violin  
University of Kentucky

**Margaret Bashkin Karp**

Senior Lecturer of Violin and Viola  
University of Kentucky



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Thank you for coming to our talk!

We are excited to share with you some of our ideas and observations on setup.



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For many years, we have collaborated in our teaching in exploring best use of the body for the growing (and recently growing) violinist/violist.

Playing these instruments makes special demands of the player's physiology, and risk of excessive tension, resulting in long-term or acute injury, is high.

For us, a major part of teaching at the undergraduate level is helping each student find the right position and set-up. And, even for students at the DMA level, refining and tweaking, or completely revising, setup is often the highest priority of the first year.



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What is “Set-up”?



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The positioning of the violin or viola and bow to allow for the most ergonomic and freely expressive style of playing .



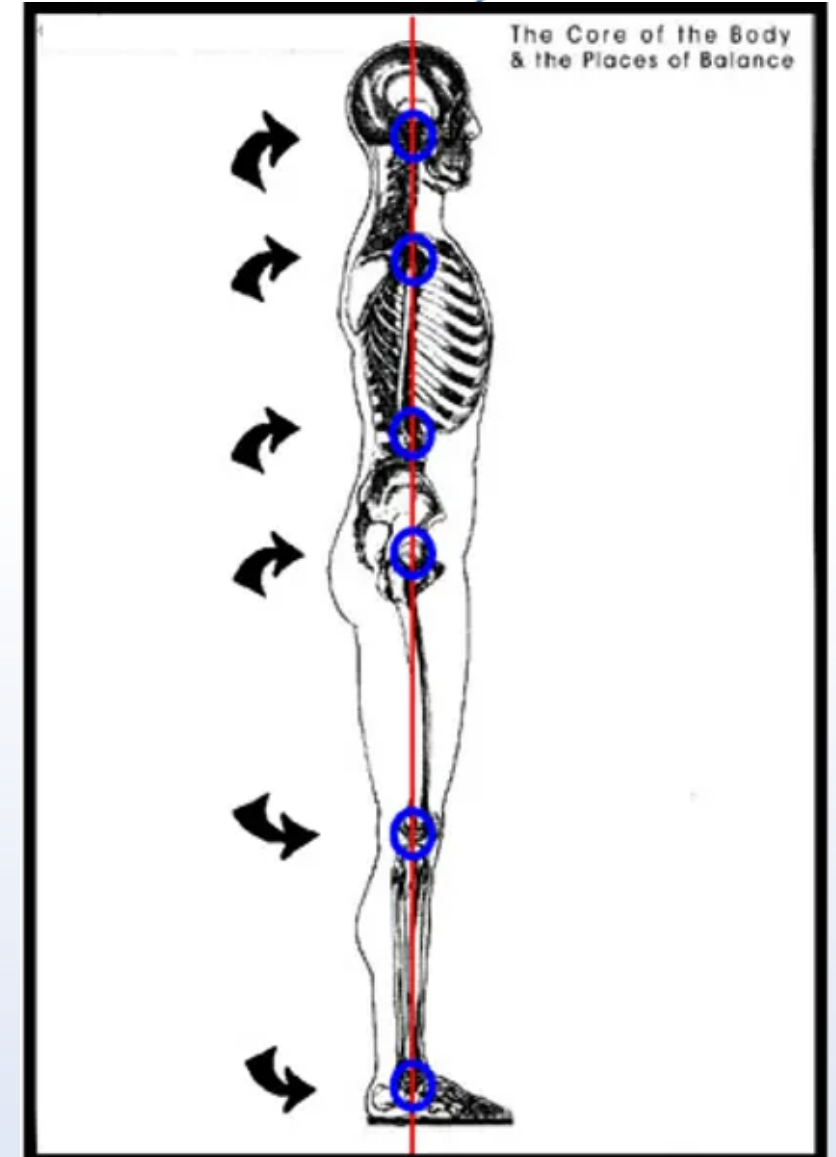
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What is “good posture”?

Good Posture, for playing violin /viola is:

- Center of gravity in spine
- Ears, hips, ankles in line
- Knees are soft
- Top of skull, forward and up
- Door edge exercise
- Mimi Zweig's IU, Centering and Hitchhiking Duck exercise (Topic 1: Getting Ready to Move, [stringpedagogy.com](http://stringpedagogy.com))





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What are the benefits of instrument resting on collar bone?





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- Greater stability for instrument because it has a secure foundation on the skeleton
- Arms are lower, compared to playing with instrument raised up off the collar bone by a high shoulder rest
- Shoulders can remain lower and more relaxed, as well

Violinist in Balance –Utrecht Conservatory, 2000, was a well-documented research project which demonstrated the benefits of Alexander Technique principles and Paul Rolland’s work as basis for violin/viola set-up.

<https://www.violinistinbalance.org>

Violinist in BALANCE

CREDITS SITMAP @ CONTACT

What we did | what happened | musician-stories | equipment | conclusion

intro:

This website documents the Violinist in Balance study at Utrecht School for the Arts between 2000 - 2005. For current information see [www.artistinbalance.org](http://www.artistinbalance.org)

The research

Balance is the core of good playing technique but balance is often disturbed when playing with ill-fitting equipment. Neck and shoulders overwork to hold the instrument placed in an unhandy position. Freedom of movement suffers, and cramped playing can lead to technical frustration, discomfort, pain and injury. Over a one year program, selected students progressively changed their equipment, unlearning cramped playing habits with the Alexander Technique, and overcame most of their playing difficulties.

Afterwards:

Our results were published online, and shortly afterwards we formed the Artist in Balance Institute. Through education, ergonomics and technology we aim to empower all players to improve their comfort and playing technique. Working with hundreds of musicians we developed the Violinist in Balance method. Today we apply interactive measuring techniques, use 3D design and printing to individually create custom chin rests and shoulder rests.

[View the movie >](#)

RESEARCH VIOLIN | VIOLA

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How are the arms/two sides of the body interrelated/interdependent?

- Both sides depend on overall geometry
- Swinging of arms, with pivot to playing position
- Initiation of downbow movement with shoulder blades

From *Violinist in Balance*:

Violinists and violists spend hours training shoulder, elbow, wrist and finger joints in order to “bow straight.” Their goal is to:

***position the bow at a right angle to the strings.***

We looked at this basic technical question from a different perspective. We found that we could “put the violin straight” instead by adjusting the equipment to:

***position the strings at a right angle to the bow.***



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What are the factors that affect the overall setup plan and accessory choices?



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- Effective neck Length/ collar bone prominence
- Arm length and thumb length
- Overall anatomical geometry
- Eye dominance



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How do I know if a student might benefit from a lifted chin rest?

## Measuring the Neck

1. Player stands tall with head erect over spine. Chin is slightly tucked.
2. Using the tape measure, measure between the jaw and collarbone as shown below.



Measure about 1 1/2 inches in front of the  
left ear directly below to the collarbone

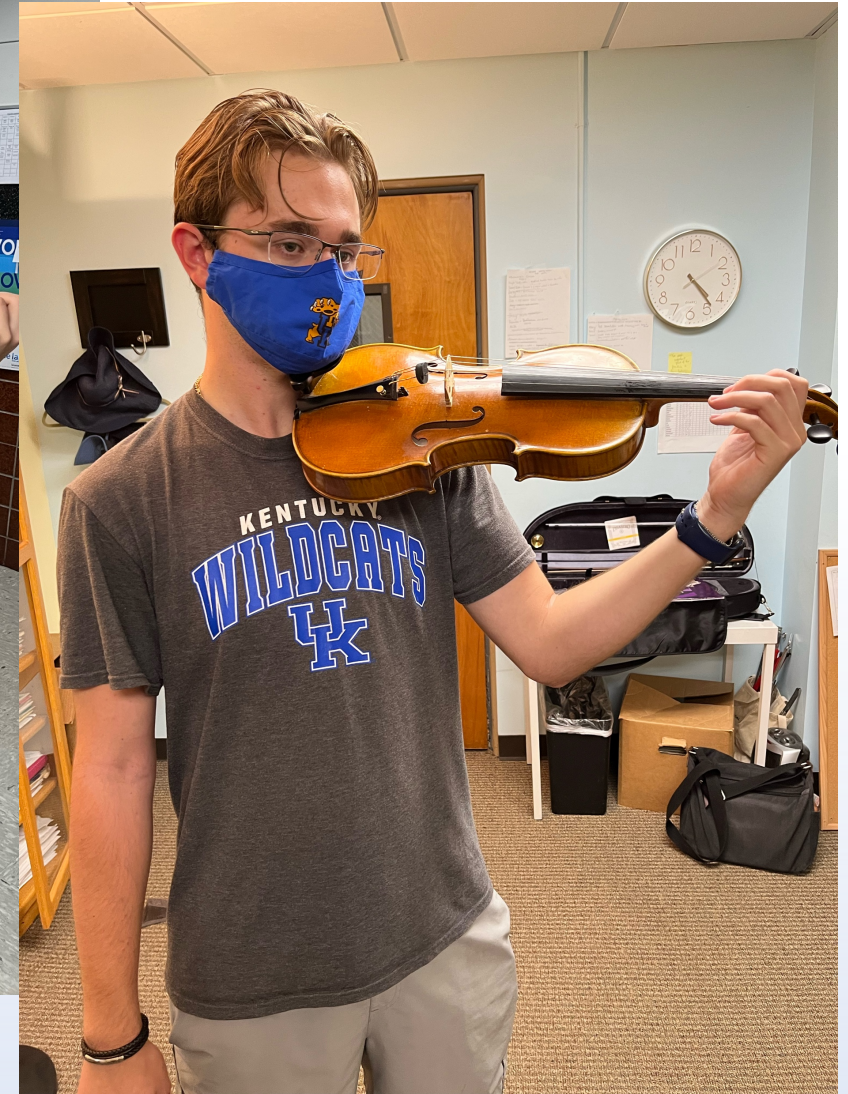
3. If the neck is shorter than about 90 mm, a lift might not be necessary depending on the chinrest chosen. In such cases, consider using the Crescendo Kit to determine which non-lifted chinrest will fit. For necks about 95 mm in height, a 10 mm lift from the Fortissimo Kit might be used. For a 100 mm neck, a 15 mm lift might be chosen, and so on. Each topper has a characteristic height, and lifts will need to be higher or lower depending on which topper is used atop lift.





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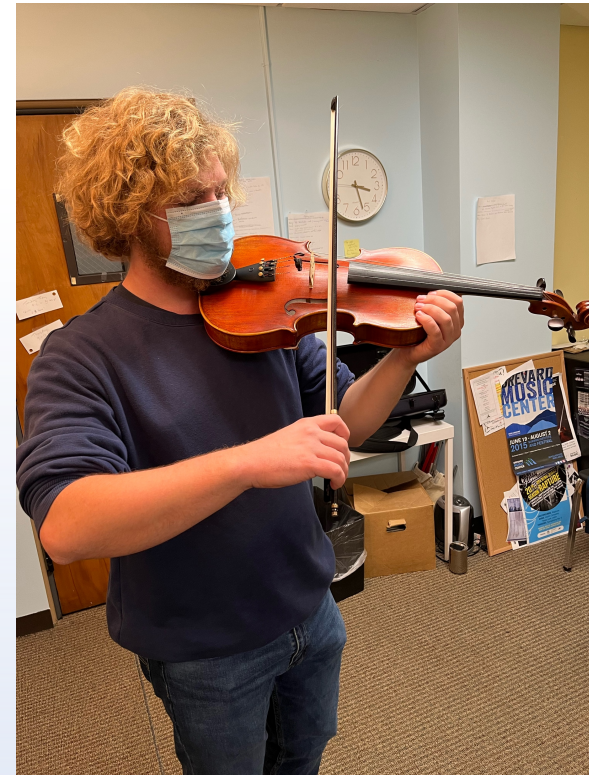
Photos of some of our students.....







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How do I know if a student might benefit from a center chin rest?



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- Center chinrests are helpful for students who have trouble reaching the tip of the bow.
- It can also be helpful for balance as it can promote the movement of the instrument from side to side
- A downside to the middle chinrest is that playing at the frog can be a bit more cumbersome for students.



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What are some equipment options?



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Chin rests, shoulder rests, and other options abound today; many are adjustable.

- Flat Chinrests
- Lifted Chinrests
- Adjustable Chinrests
- Side- mounted Chinrests
- Over tailpiece Chinrests
- Frisch and Denig
- Fiddlershop
- Kredde
- The Wave
- SAS
- Dolfino



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How do I know if a student needs support under the instrument?



- In general, instrument on collar bone could eliminate or greatly minimize the need for under-instrument support
- Important: it's better, if something is needed, that it not be too tall. This forces the instrument, and neck, to jut forward
- Most stock shoulder rests will be too tall with instrument on collar bone, unless collar bone is very high and/or shoulder slopes steeply
- Among many online contributions to the debate are this by Nathan Cole, <https://www.natesviolin.com/ditched-shoulder-rest-30-years/>
- and this by Jonathan Swartz (at stringpedagogy.com) <https://www.youtube.com/watch?v=4iBKg7O4dRc>

- DM: currently using no shoulder rest and no contact with shoulder. Used Kaplan's Shoulder Horn for about 15 years.
- No shoulder rest offered as an option to students but only about 1 in 4 seem anatomically suited to having nothing below.
- Left thumb length is actually a significant factor for them, as it must contribute to holding instrument even in the highest positions
- MK: currently using Kaplan's Shoulder Horn or Viva La Musica
- We have both tried MANY options!

Examples of shifting  
without shoulder rest...



**SERGEI RACHMANINOFF**  
"Daisies"

- Robert Chen,  
Concertmaster of  
Chicago Symphony  
in excerpt from  
*Butterfly Lovers*  
concerto. No  
shoulder rest, very  
free movement....





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- Sponges
- Makeup sponge
- Acousta Grip
- Poly-Pads , blue ( firm) and gray (less firm)
- Zaret
- Xeros
- Belvelin
- Playonair
- Perfect Shoulder Rest Saddle
- ArcRest

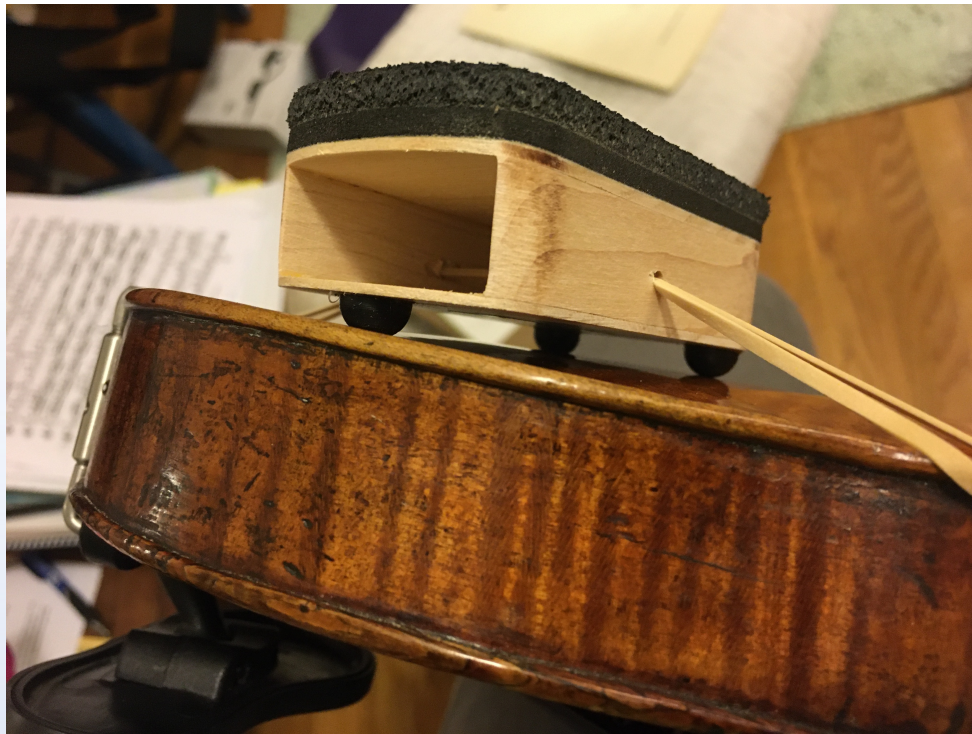


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- Kun
- Mach One
- Everest
- Viva La Musica
- Wolf
- Bonmusica
- Wittner
- Korfker Rest

Shoulder Horn,  
designed by Burton  
Kaplan.....





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How should changes in setup be introduced?





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- For some students, one small change at a time can be better than a complete overhaul; takes time to get used to new ideas
- Start with collar bone/chinrest part of setup
- Stabilize instrument first, using sponges or whatever is necessary under the instrument, checking front and back



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- Look for more long-term solution through experimentation  
ALWAYS – the body is the guide; teach students to listen to what their bodies are telling them!  
However, old habits, even if they cause pain, may seem more comfortable, at first

What are some techniques to help  
with implementing setup plans

- Two handed assist in placing instrument can reduce tension
- Swing left elbow to playing position while holding instrument with right hand – left shoulder placed in playing profile
- Right hand brings instrument to left shoulder without neck, chin or shoulder involvement
- Using the left hand alone to position the instrument may leave the elbow behind



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Holding instrument up with left arm down, for many body types, results in extreme neck tension which is difficult to release once the left hand comes up



Watch as Jascha  
Heifetz places violin  
on shoulder with  
*right hand* assist.....





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# Resources

- <https://www.stringpedagogy.com/>
- <https://www.chinrests.com/resources>
- <https://markrushviolin.com/> (*Playing the Violin*, 2006 Routledge)
- <https://www.bodymap.org/what-musicians-needs-to-know-about>
- Robert Gerle, *The Art of Practicing the Violin*, 1983, Stainer and Bell
- The Karen Tuttle Legacy
- Simon Fischer
- Nathan Cole (natesviolin.com)
- Violinistinbalance.org
- What Every Violinist Needs to Know About the Body, Jennifer Johnson
- Indirect Procedures: A Musician's Guide to the Alexander Technique (The Integrated Musician), Pedro de Alcantara
- More at [danielmasonviolin.com/research](http://danielmasonviolin.com/research)

## Conclusion.....

- Goal is to help students play in the most comfortable and ergonomic way for a lifetime of healthy playing
- Be open to solutions
- Small changes can have a big impact
- Patience and encouragement from teacher is important
- Listen for ringing tone





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