

# Proper Instrument Height for Percussionists

**Dr. Brad Meyer**

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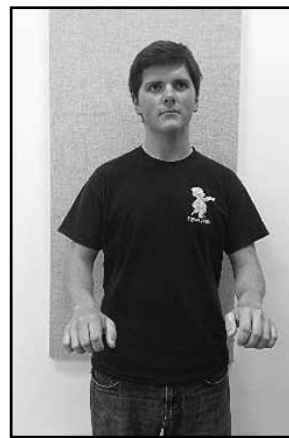
A common problem young percussionists face is not knowing how to properly set their instrument(s) to the appropriate height in relation to their unique body's height. Proper height adjustment of percussion instruments is crucial for all ages of percussionists as it can either help or hinder their development in obtaining the correct grip and stroke. There are "quick tricks" some educators give young percussionists to help them set their instruments to the appropriate height, but these shortcuts rarely end with the instrument being at the correct height for students. Just as band directors take time to discuss embouchures and hand positioning with wind/brass instruments with new students, directors should also give the new percussionists the appropriate amount of instruction on how to get instruments to the correct height. Students who learn how to adjust instruments to the proper height early on in their education have a steeper learning curve with fewer stroke production and grip problems, which results in more natural, relaxed playing.

## The Basics

Percussionists who play matched grip for concert and/or marching percussion should have their instrument set so their forearm is at a slight downward angle (approx. 10-15 degrees) to the instrument. The palm should be parallel with the floor and the shoulders should be relaxed with the elbows close to the side (some students' elbows may touch their sides depending on their size). The elbows will be slightly behind the center of the students' body (about 1-2 inches) to counterbalance the weight of the stick, wrist and forearm. A common way to describe the correct wrist/arm/shoulder position is to have the student relax as if they are standing in the school hallway, listening to a friend's conversation - arms and wrists hanging relaxed from the shoulders. From that position, simply raise the forearm with the wrist in line with the forearm while keeping the arm and shoulder relaxed until the forearm is gently sloping downward at about 10-15 degrees with the palms parallel to the floor. The proper wrist, arm, and shoulder placement can be seen in Examples 1 and 2 below.



Example 1



Example 2

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Here are some examples of incorrect positions of the wrist, arm, and/or shoulders - Examples 3-6:



Example 3: Instrument is too low/ Forearm at too much of an angle



Example 4: Player is too close to instrument/Elbows too far back



Example 5: Wrist turned over



Example 6: Elbows too far from the sides of the body

A good way to figure out the correct height of an instrument in relation to a specific student is to have the student turn so he/she is facing 180 degrees from the instrument. Then, have the student set up his/her arms with the sticks or mallets in their hands. When he/she is set with his/her arms, wrists, and shoulders in the correct position, have him/her close their eyes. Have him/her turn 180 degrees so his/her sticks or mallets are directly over the instrument as if ready to play the instrument. Then, have him/her open their eyes without moving. The instrument's playing surface should be one inch below the head/ tip of the implement. The student will now be able to detect whether he/she has the instrument at the correct height. If the instrument is more than an inch away from the head of the implement, then the instrument should be raised. If the student accidentally hits the instrument with the implement when he/she turns, then the instrument is too high and should be lowered.

### Specific Instruments:

**Concert Snare Drum** - The drum's head should be flat and parallel with the floor with the sticks about one inch above the drumhead and parallel to the floor. Again, the forearm should be gently sloping downward to the wrist at approximately 10-15 degrees (Example 7). Many young students set up the snare drum too low, causing the sticks to be at a steep angle to the drum. Having the sticks hit the drum at too sharp of an angle causes the stroke and rebound to suffer. It also results in the hands/wrists to turn over, creating a bad grip (Example 8).



Example 7: Good snare drum height



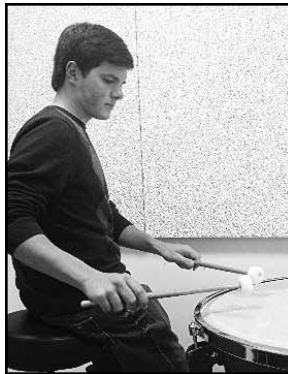
Example 8: Snare drum too low/ hands turned over

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**Timpani** - Timpani playing should always be done in a seated position to help the student play the timpani at the correct height and allow for more efficient pedaling changes (Example 9). The mallets should be one inch above the drumhead and parallel to the floor with the forearm gently sloping downward to the wrist at approximately 10-15 degrees. Timpani need to be oriented so the player can move from drum to drum without changing their wrist/arm/shoulder position. When moving between drums, the player should twist from their core/abs while maintaining the same shoulder, arm, and wrist position (Example 10). Many young students sit too low to the instrument, causing their wrists to be above their elbows, resulting in an unnatural wrist, arm, and shoulder position (Example 11).



Example 9: Good timpani stool height



Example 10: Good posture playing an outside timpano



Example 11: Timpani stool too low, causing bad wrist positioning

**Mallet Instruments** - Students should position their body so their forearm is gently sloping downward to the wrist at approximately 10-15 degrees while their mallets one inch above the keyboard. Also, students should position their mallets over the naturals so their elbows are only 1-2 inches behind the center of their body (Example 12). When reaching out to accidentals, students should move their arm forward from the shoulder (Example 13). Young students often stand too close to the instrument to make it feel easier to them when reaching for the accidentals (Example 14). Standing too close to favor the accidentals will cause tension and also poor stroke/sound production.



Example 12: Good instrument height



Example 13: Good use of shoulder to reach accidentals



Example 14: Too close to the instrument/Elbows too far back

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### Creative Height Adjustment Solutions

If you have height-adjustable instruments, especially mallet instruments, then students should be taught how to properly operate each piece of equipment's height-changing mechanism. Unfortunately, not all band programs have height-adjustable instruments. Below are some creative solutions to increase the height of various percussion instruments:

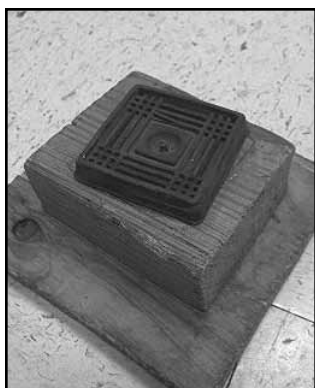
PVC pipe  
(2" to 4" coupler fitting):



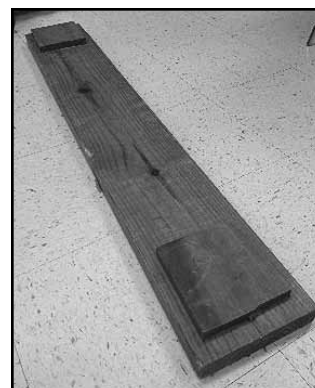
Wood block with caster groove cut out  
(6" x 3" x 4" = Width x Depth x Height):



Wood block with rubber gasket on top  
(4" x 4" x 2"):



Wood boards  
(4' x 7" x 1.5"):



## Proper Instrument Height for Percussionists

Most times, the issue of height has to do with raising an instrument; however, on rare occasions, you may have a student who is too short for an instrument. Cases like this are a little harder to solve because instruments typically are made to be playable to average sized middle-school percussionists. If you are in need of a lowering an instrument, there are several ways you can achieve this:

- 1) Build a platform the performer can stand on behind the instrument.
- 2) Find smaller casters to put on the instrument.
- 3) Remove the casters from the instrument completely (this usually isn't an option since percussion instruments need to be moveable).

### Conclusion

All new percussionists need to be taught how to adjust their instrument(s) appropriately and in relation to their unique body height. It should be every percussion educator's goal to "set the students up for success" by teaching them how to position each instrument correctly to themselves. Having students properly positioned behind their instruments will ultimately lead to having a better stroke production and grip, which will help them advance quicker through the initial stages of music education. This will ultimately not only help the student play better, but will result in the ensembles they play with sound better as well.

*Dr. Brad Meyer is a percussion educator, artist, and composer with an extensive and diverse background. Currently, Brad is the Director of Percussion Studies at Stephen F. Austin State University (Nacogdoches, Texas) where he directs the percussion ensemble and steel band ("Jacks of Steel"), teaches private percussion lessons and the percussion methods course, and is the coordinator/arranger for the SFA Lumberjack Marching Band's percussion sections. Dr. Meyer frequently tours to universities and high schools both nationally and internationally to present recitals, workshops, masterclasses, and clinics on various topics, including: electro-acoustic percussion, contemporary marimba, concert snare drum, marching percussion, percussion ensemble, steel band, and world music. Brad is a composer with compositions for snare drum, multi-percussion, and percussion ensemble published through Bachovich Publications. Dr. Meyer is a proud endorsee of Yamaha Instruments, Zildjian Cymbals, Vic Firth Stick and Mallets, Evans Drumheads, and Tycoon Percussion. ([www.Brad-Meyer.com](http://www.Brad-Meyer.com))*