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Pitch accuracy is one of the most important aspects of a quality musical performance and especially critical to string students. This session will discuss some problems in and causes of poor string instrument intonation and provide teachers with practical teaching strategies along with a variety of resources that will help students make progress in improving their intonation.

- 1. Philosophy
 - a. Importance of intonation on performance
 - b. Misconceptions of intonation problems
 - c. Teaching aural skills from day one
 - d. The teacher determines the expectation for intonation
 - e. What research has shown us
- 2. Causes of intonation problems and strategies to correct
 - a. Aural
 - i. Inability to "audiate" (Gordon, 1993)
 - 1. "Say" (sing) note names
 - 2. Listening for what is right & wrong
 - ii. Beat elimination
 - iii. Reference pitches
 - 1. Drones
 - a. Scales
 - b. Tunes
 - c. Improvisation
 - iv. Detune the violin open strings for scales/simple tunes
 - v. Using and finding appropriate accompaniments
 - 1. Put things in harmonic context
 - 2. Show EEi, accompaniments with different harmonic analysis
 - vi. Instrument harmony
 - 1. Double stops with open strings
 - 2. Partner Double Stops
 - 3. Listening for sympathetic vibrations
 - vii. Tuning in groups
 - 1. Build chords
 - 2. Chorales
 - viii. Theory training
 - 1. Intervals
 - a. Higher/Lower
 - b. Half/whole steps
 - ix. Have students warm-up before tuning, simulate listening
 - b. Technical Set-Up
 - i. Instrument position
 - 1. "The Frankenstein" too far forward
 - 2. "The sagger" instrument not paralell
 - ii. Left hand position
 - 1. Violin/viola

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- a. Left hand shape
 - i. First finger square
 - ii. Fingernail hover
- b. Left arm position
 - i. Swing under, maintain hand shape
- 2. Cello
 - a. Left hand shape, 1st finger placement
 - b. Left elbow height
- 3. Bass
 - a. Left hand shape, "Inhale and hold"
 - b. Left elbow height, grab a Coke
- iii. Finger Tapes (Finger Placement Markers)
 - 1. Yes or no?
 - 2. How many?
 - 3. How long?
 - 4. What to avoid
- iv. Right hand technique
 - 1. The right hand effects intonation too!
 - 2. Speed/Weight/Placement considerations to maintain constant tone & pitch
- v. Mechanics of open string tuning
 - 1. Fine Tuners
 - 2. Pegs
 - 3. False Strings
 - 4. Environmental Factors
- c. Physical
 - i. Students must understand how to physically adjust a pitch
 - ii. Pitch matching exercises/games
 - 1. Hands together
 - 2. Eyes closed
 - 3. Play softer
 - iii. One finger scales
 - iv. Block vs. Independent fingerings
 - 1. Finger pattern diagrams
 - v. Exercises for block fingering
- 3. Technology
 - a. Tuners
 - i. Good for initial steps
 - ii. Reliance compare to calculators from math class
 - b. Intonia (Mac/PC) <u>http://www.intonia.com</u>
 - i. Visually displays pitch live
 - ii. Allows students to analyze recordings
 - c. Tartini in Tune (iOS)
 - i. Available on the app store

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