

# Clarinet Reed-Adjusting Clinic

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## I. Purchase reed adjusting equipment.

General information about reed adjusting <http://www.tcnj.edu/~mckinney/the%20reed.htm>

You will need to invest about \$100 to get the following supplies, if you don't already have them:

| Item  | Possible Source   | Approx. Price |
|---|---|---------------|
| reed knife and glass reed support             | <a href="http://www.wybw.com/Pyne-Reed-Balancing-Kit-472042-i1417898.wybw">http://www.wybw.com/Pyne-Reed-Balancing-Kit-472042-i1417898.wybw</a> | \$52          |
| small whetstone for knife sharpening          | hardware store  | \$2           |
| reed trimmer                                  | <a href="http://www.wybw.com/Rigotti-Reed-Trimmers-471851-i1414100.wybw">http://www.wybw.com/Rigotti-Reed-Trimmers-471851-i1414100.wybw</a>     | \$25          |
| box of at least 10 reeds (high quality brand) | <a href="http://www.wybw.com/Reeds-Woodwind-Accessories1.wybw">http://www.wybw.com/Reeds-Woodwind-Accessories1.wybw</a>                         | \$18-25       |

c. \$100

## II. Guidelines for purchasing reeds.

- A. Preferred brands in descending order: Vandoren, Mitchell Lurie, Rico Royale.
- B. Reed examination. If you are buying just a few reeds from a music store, look for clear bark (few or no water spots), strong and even heart area (not curved to the right or left), straight lines running through the tip.
- C. Buy reeds by the box to get a discount, not by one or twos. You will usually find only two or three reeds in a box of 10 that suit you, so if you only buy one at a time, the odds of getting a good one are not good. Shop the Internet and local stores for the best overall price, including shipping.

## III. Processing a new box of reeds.

- A. Print out the grid on page four and lay one reed in each cell.
- B. In a small glass or bowl, soak the reed from cell one in clear water a few minutes, then take it out and put the reed from cell two in the water to soak while you put the first reed on the mouthpiece to test it.
- C. When testing a reed, play some long tones at the bottom of the instrument's range, in the middle range (especially the throat range of clarinets), and the high range; also test the reed's ability to tongue very fast in each range.
- D. Write the date and a few descriptive words in the cell about the reed's tone qualities (i.e., clear, fuzzy, thin, strong, etc.) and tonguing ability (quick, easy, sluggish, etc.). Use a pencil, rather than a pen, as moisture from the reed may cause ink to run.
- E. Take the first reed off the mouthpiece, lay the flat side on a flat hard surface and squeeze the water out of it by pressing a finger on the bark and sliding it toward the tip several times. Lay the reed back in cell one and let it rest for a least one day.
- F. Repeat steps B, C, D, and E for the next reed and continue this process until all 10 reeds have been tested.  
**DO NOT MAKE ANY ADJUSTMENTS TO REEDS THE FIRST DAY!!**
- G. On the next day, repeat the process above for each reed. You will probably notice that your written comments are mostly the same, but that there will be some small differences. The differences are caused by the reed "curing" and to differences in atmospheric conditions (reeds generally play better in dry weather). Be sure to write the date and comments, even if they are mostly "ditto."
- H. On the third day, start making small adjustments described in the Adjusting Reeds section.

#### IV. Adjusting Reeds.

- A. Just as learning to play your instrument takes time and effort, learning to adjust reeds requires learning specific techniques. Expect to make some mistakes at first and keep trying. In general make only very small adjustments. It doesn't take much to make big differences in how reeds play. Adjusting reeds is an art informed to some extent by science, but reeds are made of natural cane, so all the rules below have exceptions and conditions. It is probably best to start working with the weakest reeds – the ones you would throw away anyway – until you get a good feel for making adjustments. Remember, **SAFETY FIRST!** This work is with sharp tools that can cut skin, if you are not careful.
- B. All good reeds have a strong heart area (see illustration on the last page). When holding the reed between your eye and a strong light you can see the shadow of the heart through the cut area of the reed. It should be about the same shape as the illustration, but is seldom as perfectly symmetrical or cleanly shaped. Reeds which do not have strong heart shadows or which have a very short heart (ending far down from the tip) cannot produce a good tone or tonguing response.
- C. Good reeds have an evenly balanced slope to the edges and tip (see illustration). It is not absolutely necessary to measure each point of the reed, but the contour should be generally similar to the illustration. Due to defects in the manufacturing process, especially with cheaper reeds, the contours are often asymmetrical. This produces anomalies in the tone and difficulties in tonguing.
- D. Good reeds have a straight shoulder cut. Cheaper reed manufacturers do not take the time to remove the area of bark left on either side at the bottom of the "V" cut. If you have a reed that does not have a straight shoulder cut, make this adjustment before any other: Make a shallow slice perpendicular to the sides of the reed at the bottom of the "V" cut. Put the edge of the knife in the cut, support the knife with your thumb (that is holding the reed) and rotate the knife toward the tip. This will cut and lift the unwanted bark off the shoulder areas.
- E. The shoulder areas affect the performance of reeds in all ranges, but are most important for low pitches. A reed that sounds stuffy or fuzzy, especially on low pitches, can be improved by scraping a thin layer off each shoulder. Be sure to always start at the thickest part and scrape toward the thinnest (toward the tip or sides) and away from your fingers.
- F. The area on either side of the upper heart affects tone in the middle range (especially the throat tones of the clarinet). Reeds that sound stuffy or fuzzy in this range, but sound fine in the low or very high range need to have a thin layer of wood removed from this area. Repeat wood removal and re-testing several times until the middle range tone is clear and strong. Scrape from thickest part to thinnest part.
- G. Reeds that sound good overall and tongue well, but still produce a slightly stuffy tone in the throat register (treble clef space F to Bb), need to be scraped a little in a small area immediately on either side of the upper heart. It's a mystery why this works, but it does.
- H. The tip area affects tone in the high range and affects tonguing. Reeds that have fairly good tone in the low and middle ranges, but do not sound easily in the upper range need to have a thin layer of wood removed from the tip. **BE VERY CAREFUL** when working on the tip. Lay the reed on a flat piece of glass (one with specially sanded edges so you don't cut yourself) and very lightly scrape the wood from the top of the heart area out past the tip. Do not press too hard on the knife or it will gouge a nick out of the tip. Improving the tone here will also improve the tonguing.
- I. Some reeds have tips that are too thin, which causes overall weak tone and poor tonguing. Use a reed trimmer to cut a paper-thin strip off the tip. Because this affects the performance of the reed in all ranges (the entire contour in effect "moves up" on the reed), it is important to cut off only a very small amount at a time. Re-test the reed and cut a little more off, if necessary. Remember, you can always cut again, but you can never put some back on if you cut too much. Go slowly.
- J. Do not make a lot of big adjustments at one session. In the cells, write short notes describing what adjustments you made on each reed, then let the reed rest for a day. At the next session, you may find the reed playing wonderfully as is, or you may want to make further adjustments.

V. Putting reeds in order and storing reeds.

- A. When finished with adjusting reeds after several days, throw away the truly awful ones (or make them into a lamp shade, etc.). Arrange the others in order from best to worst.
- B. Write numbers on the plastic reed containers. Place your best reed in container #1, the second best reed in container #2, and so on.
- C. Use the lower numbered reeds (1, 2, 3) sparingly for dress rehearsals, concerts, and solos. Use the higher numbered reeds for practice. Remember, reeds have a limited life time. The chemicals in our saliva break down the cells in the wood's fiber over time and even a great reed loses its strength. Try not to play the same reed two days in a row.
- D. Every week or two, re-categorize your reeds. Reeds that were at one time your best reeds eventually need to move down to the practice status, and eventually be thrown away.
- E. A reed that has been very good, but is getting old can get a few more hours of life by soaking it a few minutes in hydrogen peroxide, rinsing in clear water, and squeezing the moisture out as described below.
- F. Always squeeze the moisture out of reeds after every playing. This will greatly prolong the useful life of the reed.
- G. NEVER, ABSOLUTELY NEVER, LEAVE A REED ON THE MOUTHPIECE when finished playing. Take the reed off and squeeze the moisture out, then store in a plastic container both to keep the tip flat and to allow air circulation so the reed can dry out.
- H. Reeds that have absorbed the flavor of certain strong foods (garlic, onion, etc.) can be made more pleasant by soaking briefly in mouthwash then squeezing and drying. Note: make it a habit to brush your teeth and rinse thoroughly before playing and do not eat food or chew gum while playing, as the sugars can break down the reed fibers, as well as leave a sticky residue on the clarinet body and pads (that feeds bacteria and causes your instrument to play poorly and smell bad!).
- I. The mouthpiece should be scrubbed at least once per month, using an old toothbrush and your favorite flavor toothpaste in lukewarm water. Rinse thoroughly and dry completely. Try not to get too much water on the cork, as it may absorb moisture and expand, making it hard to assemble onto the clarinet.

VI. Continual process.

Whether we like it or not, this process of buying, trying, adjusting, and categorizing reeds is one that must continue as long as we want to have good tone. It is unprofessional and risky to wait until you have no good reeds left to start the process over. It takes time to develop good reeds, and those who choose to rely on luck will surely sound like it. Reed adjusting needs to become part of the daily practice routine. Because reed cane is so hard, it dulls the knife quickly. Keep the knife sharp by drawing a whetstone repeatedly down from the top of the knife to the cutting edge on both sides of the knife.

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Notes on reed performance. Write (with a pencil) the assessment dates and descriptions of each reed's tone and tonguing.

|   |   |   |   |    |
|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5  |
| 6 | 7 | 8 | 9 | 10 |

**Illustration: Parts of the reed.**

