

# Trumpet Fundamentals:

## *A Comprehensive Guide to Starting Them Right and Keeping Them Right*

**Will Strieder**

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The challenge of teaching beginners and developing students is that our bodies have instincts that are counterintuitive for efficient performance practice. Playing the trumpet should be as easy as forming an embouchure and blowing air. However, with many students there are roadblocks that prolong a student from becoming successful.

The difficulties students face in their playing are caused by stressors. Stressors are situations that are experienced as a perceived threat to one's well-being or position in life, when the challenge of dealing with which, exceeds the person's perceived available resources. When one encounters stressors, the body's stress response is triggered, and a series of physiological changes takes place to allow the person to fight or run. In etymology, the word stress is from *estrecier*, to tighten.

Common trumpet stressors include: range, dynamics, endurance, articulation, technique, rehearsals, and auditions. Basically, we stress our bodies by trying to play higher, faster, louder, and longer. Teaching students to overcome these stressors is a challenge because every student is unique. Each student will respond

differently to different stressors. His/her body will respond differently at different times. The body WILL become complacent.

One major argument among students and teachers is the topic of whether or not certain exercises are the same as playing the trumpet. Most of the exercises are similar, but not exactly the same, to actually playing the instrument.

They are designed to help your body trigger the correct, healthy response to the stressor. They create muscle confusion. They make you stronger. You don't see football players arguing about the benefits of lifting weights or doing exercises off the field. Many popular workout systems discuss muscle confusion as the key to continuing improvement.

When working with students, I break down the physical side of trumpet playing into:

- The correct usage of air
- The center of pitch
- The suppleness of lips

Concerning the correct usage of air, we are trying to counteract the body's natural response to exerting force, the grunt. You hear a lot of grunts in the weight room. That red face might not get in the way of your bench press, but it will definitely stop a student from playing a high C! Known as the valsalva reflex, this is triggered every time we try to give our air that extra

push. The key to good air is a very fine line between releasing the air and blowing the air. The closer we can come to releasing the air rather than blowing the air, the more efficiently we can play. The yawn is the ideal breath. The inhalation is easy, deep and without restriction. The release is just as perfect. Most of us do an excellent job of teaching a great inhalation. However, it's the exhalation that gets the student in the most trouble.

The problem with the trumpet is the back pressure. The body tends to match the air to the resistance of the embouchure and of the

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instrument. As teachers, we usually answer this by using the trigger of telling the student to use more air. Initially this can have great results. However, it can also set a student up for future struggles. The body tries to stay in balance. We use the amount of air to balance against the amount of tension it takes to play a certain note. If we increase the amount of air, we overcome the tension and the note gets better. It's just a matter of time, however, before the tension gets stronger. We then continue the cycle by continuing to increase the air. Unfortunately, there is an inevitable point where the student can no longer overcome the tension and they just lock down. That is why we need to teach our students to trigger the correct response against the resistance.

I use blowing exercises to teach the body to not fight itself when working against the resistance. Exercises like blowing a dollar bill against the wall, blowing up balloons, blowing out candles, or blowing pinwheels or baby mobiles, work well to help the body feel the correct response for releasing the air. The key to these exercises is not how much force you can use, but how easily you can use the air to get the job done.

I also use a straw and pinwheel attached to the instrument while playing. The straw fits through the embouchure into the oral cavity. It samples the air as we are playing. The leaking air disrupts the balance between the air and embouchure. Usually, we can barely play. It helps us to learn to use more air without extra tension. As a result of playing with the straw, when we remove the straw we have extra air. We can also see how the body is using the air. For example, the pinwheel should accelerate going into the upper



*Straw and pinwheel*

register. The pinwheel should keep spinning when we articulate. The pinwheel gives both a visual and an aural trigger to achieve the correct response as we play.

The other element of the equation is the resistance. The embouchure should be the only thing creating the resistance. The resistance increases as we ascend into the upper register and decreases as we descend into the lower register. The air has to be buoyant against this changing resistance and needs to be able to respond to the different registers of a piece of music. This is why we often have problems with flexibility. I am a big believer in free buzzing. Most teachers are very opinionated as to the validity of free buzzing. Free buzzing will strengthen the embouchure muscles. It is NOT the same as playing the trumpet. And that is OK! It is harder than playing the trumpet (lifting weights). It will increase endurance. If you do too much at first, it will make you stiff (lifting weights). You should start with only a minute a day and gradually build up over a period of months. We are basically small muscle athletes. All of the same rules apply to the embouchure muscles as you would apply to any workout routine.

There are two basic types of embouchures: embouchures formed by the muscles (free buzz) and embouchures formed by the mouthpiece (pressure). When teaching beginners, the easiest way to start a student is by having him/her say the letters "M&M", as in the candy. The student then says "M&M" with a coffee stir straw between the lips. This helps set up the correct aperture and embouchure. The student then should hold the "M" and blow. As he/she does this, I slide the mouthpiece through the straw to the lips. Next, as the student continues to blow, I gently pull the straw from the mouthpiece. Most students are successful with just a little coaching. If you do this approach concurrently with free buzzing, you will maximize the student's chances for success. (See photos on the next page.)

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*Straw*



*Mouthpiece through the straw*

Buzzing should be part of every brass player's diet for success. Every exercise should be sung and then buzzed first before playing it on the instrument. This is necessary to develop the center of pitch.

The key is to use a program such as Smart Music to assess the student's progress at each stage of singing, buzzing, and playing. Smart Music is a great program. You can introduce the coolness factor of playing the song with the accompaniment, but the essential work begins when practicing with just the solo line and metronome click. It is important to have the student matching the unison every time. You can then turn off the solo line and have the program assess the student's progress with just the metronome click. For a special challenge, have the student assess themselves without the click and without looking at the screen. This will also assess how well he/she can keep a steady pulse.

For some reason, some teachers refuse to use this method because they think that it doesn't teach the student to read music or that it is too much rote learning. But isn't this exactly how kids learn in band rehearsal? This approach helps a student change their practice approach from time based practice to result based practice. Students enjoy seeing green notes versus red notes and get a lot of satisfaction from getting a 100% on an exercise. Granted, Smart Music can't teach a student to play with a great sound or to be musical. However, lessons are so much more productive when a student is already playing the correct notes

and rhythms. The instructor can then focus on their student's musicality and production of sound.

The last thing I would like to address is mouthpiece pressure. As students, we learn early that a little bit of mouthpiece pressure helps get the next harmonic to come out. For example, we may press a little to go from low C to middle G. We use a little more pressure to get the next C out. We use even more pressure to get E. The next thing you know, we don't need braces anymore! The embouchure works in balance with the air. As the air blows, our lip muscles grip the air and we get the air oscillating to create the sound. As the lip muscles tire, the air blows them out and apart. We use the mouthpiece to help hold the aperture together by using mouth-piece pressure. The best approach is to teach students to use quality air while encouraging them to free buzz the full range of the instrument. The free buzz helps strengthen the embouchure muscles to withstand the air pressure blowing against them.

A great tool to help encourage the student to use less pressure is the "Pressure Reducer". It is available various places online including Ebay. You can also purchase one at Osmun.com. Search for "pressure adaptor, trumpet". The device is spring loaded and helps the student realize when and where they start to use pressure. With a little practice, the student can start feeling the spring. Without the pressure reducer, we should still be able to feel the spring being replaced by the suppleness of the muscles in the embouchure. The idea is not that we don't use pressure, but in knowing which note the pressure kicks in.



*Mouthpiece placement*

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I have found that we can play about a fourth higher at that point where the pressure reducer kicks in. If we press at middle G, for example, we can't seem to play any higher than the C above. If we can delay pressing to the G on top of the staff, we are limited to the high C. The problem is that if we start pressing on the G, every note above it is basically being played with a tourniquet. The blood supply to the embouchure is greatly reduced and it is as if the muscles are being killed. Another benefit of the pressure reducer is that if we do press as we go up from F to G, it encourages us to release the pressure when we descend. We often continue to press. This is why most trumpet players have a permanent ring on their embouchures.

I teach students that there are four basic questions they need to ask themselves if they want to improve. 1. Do they practice every day? 2. How much do they practice? 3. What do they practice? 4. How do they practice? The most important question is always the first that they can't answer correctly. Hopefully, with some encouragement, we can get students to focus on the quality of their practice.

There are many other triggers too numerous to discuss in this short article. As teachers, our job is to solve problems and find ways to help the student overcome their limitations. How we effectively teach students to train for a measured and accurate response as opposed to a primal reaction is the key to success. Choosing the right trigger for the student can make all the difference in the world.

*Special thanks to Mr. Strieder's sons Sean and Noah for demonstrating their dad's teaching techniques in the photos with this article.*

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