Medical Problems of Wind Players

Philip Farkas

Brass playing encompasses at least four distinct categories of functions and techniques. One of the most important of these is the formation of the embouchure - the adjustment of the mouth and facial muscles and the positioning of the tongue and mandible so that the lips will vibrate when blown through. The breathing apparatus - the diaphragm, the rib cage, the intercostal muscles, and the glottis - must be correctly coordinated to work in conjunction with and maintain efficient vibration of the lips.

The third factor in brass playing is the ability to hold the instrument in a comfortable yet steady playing position. This requires strong but relaxed skeletal muscles, particularly of the arms, shoulders, fingers, and even the legs of those players who stand while playing.

The fourth aspect of playing is the psychological one of combating stage fright, which is most often exhibited in trembling arms and legs, dry mouth, tachycardia, and mental disorientation. All too many potentially successful artists have had to give up the music profession because of the inability to cope with this stress.

EMBOUCHURE

Forming the embouchure is a most complex and subtle skill. The slightest excess tension in the buccinators, too or too much much forward thrust or exaggerated recession of the jaw can prevent a performer from playing well. Seemingly, all brass players experience embouchure failure at times. Often, the only solution is trial-and-error practicing and advice from a good brass teacher.

Since the teeth serve as the foundation for the embouchure, a great deal can be done to improve playing by judicious dental work and orthodontics when necessary. The pressure of brass playing is lateral, with the mouthpiece pushing directly back into the incisors. This pressure can be intense. The higher notes require more pressure than do the lower ones. As fatigue sets in, more and more pressure is needed. Therefore, a high note being played by a tiring performer can require an enormous amount of pressure. This can amount to 5 or 10 pounds of pressure concentrated on a mouthpiece that has an area of only the size of a nickel or dime.

After such a session, one occasionally finds the front teeth slightly loose or tiny cuts on the inside of the lips where they have been pressed into the valleys between the teeth or onto a sharp corner or a protruding tooth. The dentist can often smooth down such a sharp corner or protruding tooth. He can also, on rare occasions, make a thin plastic prosthesis that can be slipped over the front teeth and fill in the offending valleys. Extreme cases of malformation can sometimes be corrected by orthodontia, but the resulting braces can often put a stop to all playing for considerable lengths of time, something a professional can ill afford.

In fact, if the tooth problem is too extensive, one might have to consider the study of a different category of instrument. The art of capping teeth has helped many brass players, but the newer technique of bonding with acrylic resin can be done more precisely and is probably stronger.

One of the best investments a brass player can make is to have a plaster cast made of the upper and lower teeth. Then, if for some reason, repair work must be done in the future, an accurate duplication of the original teeth can be made.

The function of the tongue as a part of the embouchure is to articulate the transition from one note to the next by "slurring" the notes together, which often involves arching or lowering the back of the tongue, arching for an upward slur and lowering for a downward slur, or by separating the notes from each other by the motion of the tip of the tongue forming a whispered "too" or "doo" articulation. At times, this tonguing motion, which musicians refer to as the "attack," must be repeated with extreme rapidity.

Most players do this quite naturally and easily, but some have a slow tongue. These players are acutely aware of this deficiency. Most try to improve the situation by diligent practice of suitable exercises, which is undoubtedly the proper approach. Some players, few in number, fortunately, attempt to have the problem solved surgically. Usually this consists of cutting the frenulum on the underside of the tongue. Perhaps this has helped some players, but I have never met any brass player who has benefited from it.

BREATHING

Breathing is to the wind player what bowing is to the string player: the vibration activator. Even the finest embouchure cannot function successfully without the proper use of the air column. Therefore, wind players can be seriously hindered by many pulmonary problems that might only slightly incapacitate the nonplayer. A bad cold not only decreases the vital capacity, but can swell the mucous membranes of the mouth, the soft palate, tongue, and nasal passages, all of which make the playing of a brass instrument more difficult.

Asthma can be a devastating problem for the wind player. A surprising number of wind players have this disease. Although some players acquired asthma after becoming musicians, a number, including myself, had taken up wind instrument playing in the hope that such an activity would improve the asthmatic condition. The specific drug of choice for asthma for many years was epinephrine. Relief was instant and dramatic, but the resultant uncontrollable shaking and trembling was as bad for the performance, if not worse, than the restricted breathing. Today there are medications for the asthmatic that avoid the side effect of uncontrolled shuddering. One of these, albuterol, can be obtained in aerosol inhalers that give out measured doses. There are now also sustained-action medicines, which when taken orally, can give long periods of relief to the performer facing a long concert.

HOLDING THE INSTRUMENT

Holding the instrument in a playing position may seem a simple and elementary part of our technique, but actually it is an important and demanding aspect of good playing. Holding a five-and-one-half pound instrument at the exact angle to the lips for protracted lengths of time without trembling is an absolute necessity for smooth, controlled playing. The very size of the instrument requires the arms to be held at a partially horizontal angle, which creates a leveraging effect, exaggerating the actual weight of the instrument.

The biceps, triceps and embouchure must adjust quickly, accurately and in perfect synchronization, but they must also instantly "freeze" when holding a note. Physical exercise is, therefore, not only desirable, but should be considered a necessity by the serious performer. Swimming, weight lifting, stretching exercises, and calisthenics are all useful in maintaining peak performance ability on a brass instrument.

STAGE FRIGHT

The last consideration in the problem of brass players is that giant ogre, stage fright. Surely no sensitive musician is immune to it, although the active successful performer has turned stage fright into an asset by conquering it to the point that it is no longer debilitating, but actually adds just the right amount of eagerness and excitement that contributes so much to a vital performance.

There are some medications that alleviate some of this stage fright. Perhaps the best known is the beta blocker, propranolol (Inderal). There have been highly favorable reports from some who have used it. I believe that on occasion it can be beneficial to the brass player, under the supervision of a physician. However, I believe (and nearly all of my professional colleagues agree with me) that the habitual use of beta blockers is unwarranted.

Certainly, having the confidence that one "can do it" contributes to poise on the stage. Confidence is best achieved by repetitive practice, which not only perfects the technique needed for the passage, but also provides another benefit: it "programs the computer." I believe that the human mind works as a kind of computer, which functions consciously or subconsciously. During the repetitive practice that I advocate, this computer is faithfully "tallying-up" the bad versus good run-throughs.

There are many ways to rationalize the importance or the consequence of an impending performance which, in putting it into perspective with the cosmos and eternity, will minimize its overpowering importance and thereby minimize the nervousness associated with portentous events. Just the knowledge that this performance is not associated with doomsday, nor is it even important in the overall scheme of the universe, is often a calming reflection.

For us musicians who in the past have faced our medical/musical problems in lonely frustration, anxiety, fear, and even terror, what a blessing it is to know that we now have available highly knowledgeable friends who can help us, through the use of medicine, therapy, surgery, psychiatry and psychology and, best of all, through sympathy and understanding.

See *THE HORN CALL* Volume XVII No. 2 for the complete, uncut article.

See the bio of Philip Farkas.