

Healthy Bass Playing

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Overview of Article

In this article I shall identify the health problems that are associated most often in bass players. I shall give my assessment of the challenges presented by bass playing. I shall connect the causes and problems as I see them and describe an approach to playing that in most cases should avoid the problems. I shall describe the good and bad effects of exercise. I shall connect good, musical performance with a healthy approach to playing.

Identify Specific (Medical) Bass Playing Problems

There are various medical conditions that are common in double bass players. The first signs are usually poor coordination (often not noticed), discomfort, tingling and weakness. If these symptoms develop and become 'normal' a 'condition' that is then named develops. Often a change in the shape of the spine develops over the months and years spent playing. Curves can be exaggerated, lost or new curves created by postured adopted while playing the bass. These are named as lordosis; scoliosis etc if there is a status quo of this extra pressure on joints osteoarthritis can develop.

Work Related Upper Limb Disorder (WRULD) is a basket term for a larger percentage of the bass players problems. Thoracic outlet syndrome, acromio-clavicular syndrome, frozen shoulder, tendonitis, carpal tunnel syndrome, repetitive strain injury are some of the more common conditions.

The nervous system has two basic functions; to receive information about what is going on (position and movement) in the body and to send out stimuli relating to chosen movements. If the nervous system is being compromised by pressure or pinching it does not work well. Coordination becomes less accurate and discomfort, tingling and weakness begin.

What are the challenges?

The double bass is large, heavy and an awkward shape, making transportation and playing it challenges. The bow is heavy and it has to be used at the front of the instrument whilst the player stands or sits behind or to the side; the bowing arm is being held up whilst playing. The seat is usually high and less easy to sit on than a normal chair. The necessary playing positions are asymmetric; twisting of the body is often necessary. It is difficult to hear your playing clearly in an ensemble. The instrument speaks more slowly than smaller instruments and bass sections sit behind the smaller instruments to maintain sight lines. When standing the bass tends to move away from where you would like it and standing in an unbalance way seems to improve the situation. When first learning the instrument, the most success seems to come when trying hard physically; an attitude of 'working hard' for results is established which is difficult to relinquish. It is very easy to fix the thumbs of both hands because of the strength that seems to be necessary to manipulate the heavy bow and to stop the strings. A fixed thumbs are the beginning of all sorts of problems.

Connect Use and Functioning

The way you use your mind and body affects not only the immediate results that you get but also your future health and coordination. Work related health problems tend to be connected with the repetition of particular movements; this has implications for performing musicians in general but particularly for bass playing, being more physically taxing than many other musical instruments.

Frederick Mathias Alexander coined the phrase 'Use Affects Functioning'. Immediate and long-term coordination and health are affected by the relationships between, mind, body and habit. Alexander developed his 'Technique' in the first half of the twentieth century and now musicians all over the world study it. It is included in the curricula of performing arts educational institutions for the prevention of health problems, improved coordination and greater flexibility and spontaneity when practicing or communicating with an audience. Putting the technique into practice supports technique and helps establish communication with an audience.

A Healthy Approach

Maybe the first essential from a health angle is to get the right instrument. Double basses come

in a variety of shapes and sizes. If you are small a big one is not a good choice. The trouble is so many players fall in love with a particular instrument and love is painful if you are not compatible. I have worked with several bass players who have run into trouble playing instruments that are too big for them. I play on small instruments and know of plenty of small instruments that can produce a big and beautiful sound. The shape, especially the shoulders can make an instrument very tricky to play. A suitable instrument speaks easily. There are plenty of reasonably priced basses that speak easily. The set up is vital, the bridge must be the correct size, width ways as well as height. The bridge and sound post must be ideally positioned. If this set up is not good, the player will experience discomfort tending to lead to problems. The bow needs to be well made and in particular, balanced. If the bow lacks spring, has too much spring or is weak at the point the player will tend towards extra bowing arm effort, that could develop into problems.

When transporting a double bass use a wheel (stroller) or get someone else to carry it both these ideas are likely to leave you in a good state to play it when you get to the venue.

Standing and Sitting

When sitting, have the weight even on your two sitting bones two feet on the ground makes that easier. If you use one foot up and one down, you still need to have even weight on the sitting bones, it is not so easy but is possible. When standing you need even weight on each foot and even weight on the front and back of each foot. Any unevenness will require continuous extra tension to compensate for the lack of balance.

Posture and Movement

It is essential to let go of the ideas of 'right position', 'right bow grip', 'right hand shape' etc. We need to look for balance and equal forces. The relative positions of the various parts of the body should all be readjusting and rebalancing whilst playing the instrument. Movements, e.g. bow arm, should be compensated by a response from the instrument and the other parts of the player's body. The player and the instrument should work symbiotically to maintain balance with minimum tension (but all the necessary tension!) If that balance is absent, extra or unnecessary tension is used.

It is essential to allow the back muscles to engage with and support the work you do with your arms and hands. Gary Karr has always included a good deal of focus on the engagement of the back in his teaching. All too often bass players arch the low back, (the pelvis rolls forward). This disengages the back from the arms and puts a greater burden on the small muscles in the arms needed for the subtle gestures of bowing. The opposite, collapsing of the lumbar spine (the pelvis rolls back), also disengages the back from the arms. We are looking for the whole spine to be tending to lengthen, the sitting bones connect evenly with the chair and the head tends to move away from the sitting bones, like a ball bobbling on the top of a fountain of water. For children the idea, 'head like a floaty balloon' is useful. This tendency for the spine to lengthen is a natural reflex response to gravity built into us, when it is interrupted by the way we behave, in any activity, health problems tend to develop.

Contact With The String

When you make bow contact with a double bass string there is often a great deal of pressure necessary. The equation involved should include working with the fingers holding the bow that transmits energy from the movement of the arm which has a greater or lesser amount of contribution according to how much you are releasing or tensing respectively. Releasing the weight of your arm towards the contact point is healthy and effective. Playing softer requires more tension in your arm and shoulder to avoid too much weight arriving at the contact point. A big part of the equation that is often ignored is the string holds the bow up, awareness of that reality improves awareness of the contact you are making. The other part of the equation is the sound that is created by the moving of the string and the bridge and the box and the air inside and outside the instrument. We move our body to release the sound from the instrument. The quality of the movement affects the quality of the sound and our comfort and our health. The implications of bow speed, position of the string and contact point and how the arm and bow are as one are eloquently explained by Francois Rabbath in his DVD 'The Art of The Bow'.

Stopping the String

The importance of the engagement of the back is just as great when considering the Stopping of the strings. When pushing or squeezing the string down to the fingerboard disengaging the back throws more of the work onto the small muscles in the hand arm and sometimes the shoulder. Starting from the contact, the fingers should have strong shape. A bridge can be made from

very strong material with more or less any shape or it can be made from relatively weak material built in an intrinsically strong shape. Fingers are not made of reinforced steel so a curved shape is needed to make them strong.