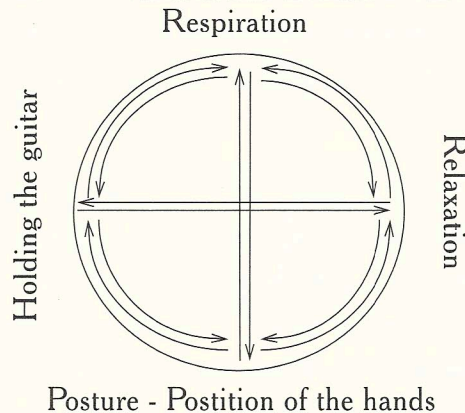


Chapter 3

The Vicious Circle

As with other instruments, in guitar playing the collaboration between different physical elements such as: breathing, relaxation, posture, holding the guitar and shaping the hands, pave the road towards steady progress. It can also work vice versa. Lack of harmony and coexistence between these factors are a guarantee for dysfunction, troubles and frustration of all sorts. This state can create a “vicious circle” in which the player’s output deteriorates, or veers towards a dysfunctional technique with poor musical output. This imaginary circle consists of:



Lack of proper support from any of the above parameters can start a chain reaction resulting in the destruction of the others.

Breathing

The most vital of physical activities, breathing controls the chemical balance of the muscles, by neutralizing the toxins produced by muscular exertion. These toxins, “lactic acid” are neutralized when they come into contact with the oxygen in the blood stream.

The accumulation of lactic acid or its partial neutralization can diminish the ability of the muscle to contract and results in pain, which can be one of the greatest ob-

stacles to any instrument playing. Naturally there may be other more severe medical effects, already discussed above.

Interrelation between posture, breathing and relaxation

Consider a player who plays with a slumped back. The lungs cannot inhale an optimal amount of air, because of a compressed thorax. Continuous deprivation of oxygen or even a slight lack of it can result in the player being unable to achieve sufficient relaxation in his body in the back, neck, arm and hands, etc., and fatigue will set in.

Interrelation between posture and an incorrect playing position of the guitar

An incorrect playing position of the guitar, can destroy a good posture. Furthermore many people have developed a bad and curved posture outside the realms of music. With such people an incorrect playing position only compounds preexisting problems. It can also work vice versa. Many people can destroy their previously good posture with a bad playing position. On the other hand, a correct playing position can even help correct a previously poor posture.

When the head of the guitar is held too low, the entire area of the right shoulder is contracted tensely upward. This static situation spreads tension in the entire back on the right side, right shoulder and armpit, arm and forearm and even the fingers.

Another outcome of holding the guitar with the head too low is pressure on the blood vessels and nerves around the right forearm and elbow. In this case pressure from the edge of the soundboard can partially block the blood supply downward towards the fingers. For the left hand the consequence is, with the head held too low, an excessive twist (i.e. supination) around the elbow. As mentioned earlier, exaggerated supination can result in "tennis elbow" because the hand cannot remain relaxed, not even sporadically. Neutralizing the twist in the elbow by bringing the forearm to its natural anatomical position with a slant to the floor, enables the entire elbow area to become relaxed again.

Interrelation between the position of the hands and relaxation

Let us now imagine a guitarist with “theoretically” good breathing, correct posture and playing positioning, but with a bad hand position i.e. unconcentrated, dispersed and fan like fingers. In this case no relaxation can exist. Any distortion in the muscle joints system causes not only high tension but also disturbs the blood supply. For instance when the right, or left, wrist is exaggeratedly bent, the blood vessels are narrowed and the blood is not fully circulating in these areas.

In our opinion, all technically blocked guitarists suffer from a chain reaction of all parameters involved in the “vicious circle” drawing.

The relationship between the different elements in our imaginary circle will be further clarified in the following chapters.

Signs of over-tension

The muscular state has to be well controlled in order to always remain relaxed or to return to a state of relaxation af-

ter a deliberate muscular effort. It's almost impossible to teach this relaxation through a book: as we are dealing with very subjective and personal sensations. However, experienced hands may help to convey this feeling to a tense person. This can be done by touch, verbal suggestions and demonstration, all together. Some physical signs can indicate muscular tension. Lack of vibratory response to padding applied on a muscle may indicate tension.

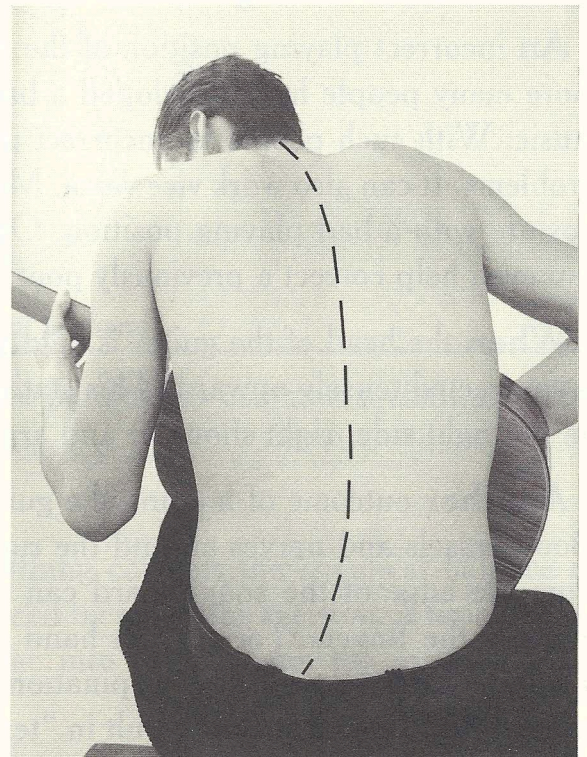


Figure 12

The resistance of the hand to a slight push, and/or lack of a pendulum movement of the arm can also be a sign of over-tension, particularly in the arm and the shoulder. Relaxation is a direct result of releasing or liberating the maximum weight of a limb.

A few more words about posture

Posture can be better understood when illustrated. Good posture is when the spine is at its optimal length. The neck and shoulders play a crucial role in maintaining an ideal posture. In everyday modern life, excesses of mental and psychological pressure generally attack the area of the head, neck and the shoulders, sometimes causing almost permanent stiffness there. Additionally remember the destructive effect of sitting for most of one's lifetime, not only as a musician.

In analyzing the guitarist's problems of posture, two negative tendencies are discernible with a large number of people when sitting with a curved back and/or pressure on the sacrum, (the lowest part of the spine) (Figure 12) With this posture, the thorax loses its normal shape and the lungs are limited in their capacity to inhale enough air. The pressure on the lower spine causes a disorder in the upper part of it - the vertebrae of the neck. After some years the effect on a musician can be disastrous; the collapsed vertebrae pinch the main nerves of the hands resulting in hypersensitivity or even pain, from the shoulders to the fingertips. In some cases the symptoms appear in both hands. From the guitarist's point of view a curved back "shrinks" the body changing the proportions between the guitar and the body. The upper body becomes smaller and the guitar feels bigger; besides the guitar is not free to vibrate. Correcting such a position generally causes a slightly painful reaction in the dorsal muscles. This sensitivity has to be disregarded until it disappears after some 10-15 days. Standing up for a short while, say every 10-15 minutes, can be very effective for diminishing these sensations in the back.

The guitar at the service of the body

Among musical instruments, the guitar is one of the most uncomfortable from

the corporal point of view. Contrary to the many instruments such as harp, keyboard, recorder, trumpet, etc., in which both sides of the back remain equal and symmetrical, the guitar in common with other instruments tends to dictate an asymmetrical and distorted upper body position in its players. We cannot keep a good posture without taking into consideration the position of the instrument. In the relationship between our body and the guitar we sometimes let the body behave as the servant of the guitar. After all, the guitar is just an "instrument", and it has to be a help

and not have the upper hand over its master. Our slogan has to be "The guitar at the service of the body" and not vice versa. Since human bodies are created by the same principles, only one "best" guitar playing position should be allowed. The ideal guitar playing position must help both sides of the back to remain in their normal position.

Our best model is always the left side of the back, and we have to try to equalize the right side. (Figure 13)

In Figure 14 the right shoulder and consequently the whole right side of the

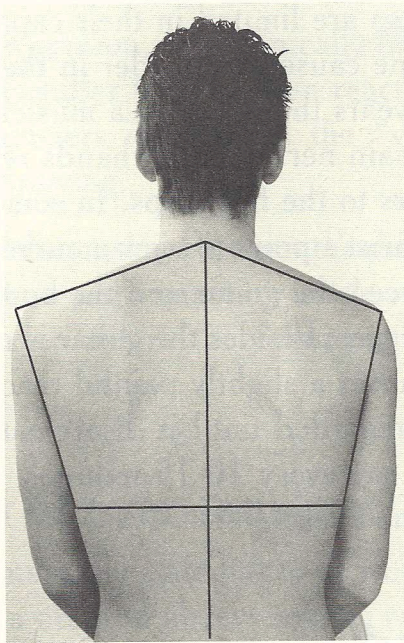


Figure 13

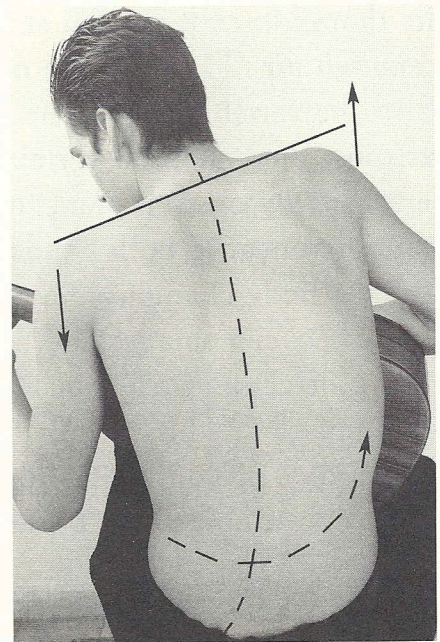


Figure 14

back can never be in a normal position, because the head of the guitar is too low and this causes the right shoulder to rise

As mentioned previously, the immediate result is a permanent area of tension with a projective effect to the back, armpit, arm, forearms and fingers, which “blocks” the flow of energy to the hands.

In this figure also notice a turning of the spine to the left, since the fingerboard is moved backward and the soundboard forward. As a result the right shoulder is pushed forward out of its natural position, and there is also static overcontraction in the backside of the shoulder which leads to fatigue and malfunction in the whole hand. (see also Figures 16-16c). After some time this bad positioning of the guitar will certainly produce pain, also on the left side in the middle of the back. Normally a guitar player looks at his left hand. In some cases the neck and the head are pushed too far forward with a big turn of the neck to the left. Playing for many years in this position can be painful and destroy the equilibrium of the spine by pulling the right muscles of the neck. In some cases the vertebrae may get slightly out of position. The symptoms of such spinal changes have already been explained.

The characteristics of good posture are the maintenance of maximum spine length, the neck at the normal extension of the spine, wide chest and back, maximum distance between the shoulders and the ears. An imaginary elastic “cross” defines the posture. All we have to do is just hold this shape. (Figure 15).

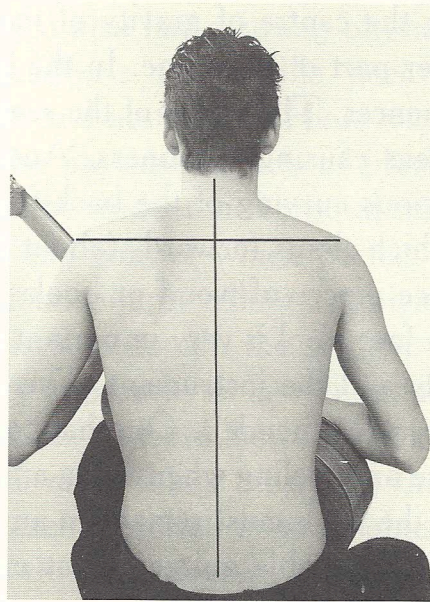


Figure 15

A preparatory exercise for the harmonious collaboration between the body (posture) and the guitar

Sit in front of a large mirror, adjust the guitar in a way that the upper body

and the hands are in their most natural position. Holding the instrument loosely, move the head and the back in a line together for one or two minutes in a clockwise direction. In this position the top of the head makes round movements, while the back is kept elastic but straight and the guitar still held loosely. Now, do the same movement anticlockwise. In the same manner move your neck and head in other directions, forward, backward and to the sides. This exercise can be very effective for helping a frozen and static upper body and leads towards free and fluent “body language” when performing different styles and different tempi.

It is very important to have a chair that does not slant backwards. Such a chair changes the centre of gravity of the back and transfers the weight of the body to the lower part of the spine. In the long term, this may lead to very severe physical consequences. The edges of the seat of such a chair may diminish the blood supply to the legs causing numbness. Another reaction of the body to such a chair is an unconscious curving of the back for the sake of “correcting” the gravity centre. A chair which slants forward, (about 5°), can give the back a very good feeling. One can place pieces of wood or books under the rear legs of the chair. Of course the use of a foot stool is very important in order to ascertain an overall balance between the body and the instrument. The use of various sorts of cushions and accessories are also recommended. One has to check individually in each person the physical response and feeling when using a footstool or other accessories. Regardless of what is used the back must remain in an optimal posture with the guitar steady and balanced, an unstable guitar causes extra work for the right shoulder and arm. Bear in mind that strings which constantly change their lines and angles may contribute to unclear playing. In using a footstool, it is most important to provide the correct angle between the left knee and the left hip, without disturbing the muscular balance of the lower back.

The height of the footstool is a result of a combination of several factors such as: the length of the legs, the height of the chair, the sizes of the upper limbs and the guitar.

The back is best inclined slightly forward while maintaining its optimal width, length, and natural curve.