

**A  
Musician's  
Guide to  
Health and  
Safety**



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with

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**The Injury  
Cycle and  
Injury  
Prevention**

**The  
Trombone Player's  
Survival Guide**



**HOW TO GET OUT AND STAY OUT OF PAIN  
USING MOVEMENT ALIGNMENT TECHNIQUE**

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Foreword by David Vining



MOUNTAIN PEAK MUSIC



There are bewildering lists of conditions that constitute performing arts injuries. They are often placed into broad categories such as: dystonias, inflammations, nerve entrapments, arthritis, trauma, and overuse syndromes. Each of these categories is often subdivided into more specific conditions with their own definition and name.

Overuse syndromes offer a good example. A repetitive or cumulative stress syndrome is over using a body part to the point of trauma. Cumulative stress syndrome has many names. Here are a few:

OS - overuse syndrome


RSI -Repetitive Stress Injuries

RSD - Repetitive Stress Disorders

RSI - Repetitive Strain Injuries or RSD - Disorders

RMI - Repetitive Motion Injuries or RMD - Disorders

CTD - Cumulative Trauma Disorders.

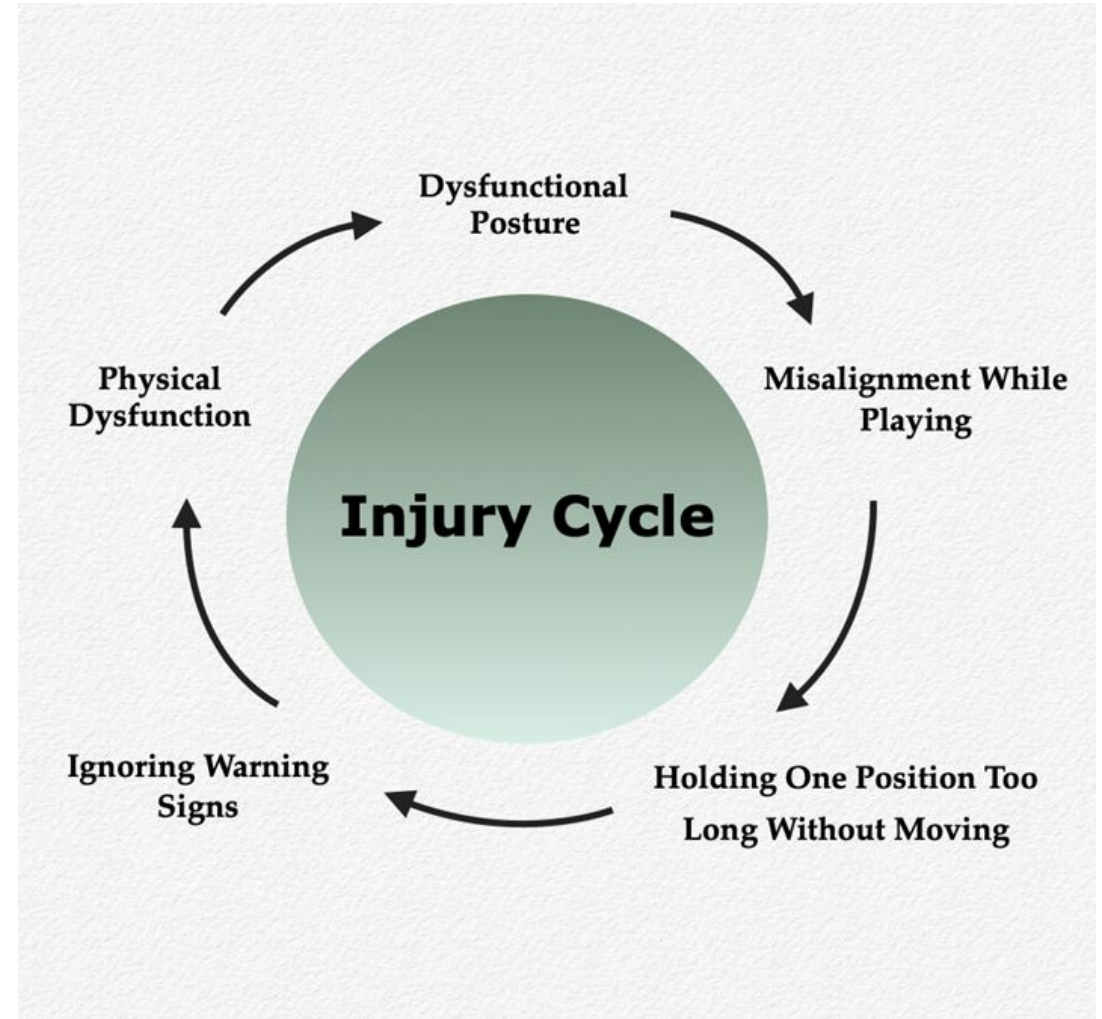


Solely attending to symptoms such as these does not address cause. We view an injury as a symptom. A symptom is defined as a characteristic sign or indication of the existence of something else (disease or dysfunction); consequently, in the most basic sense, the injury or symptoms are not causes. They are an indication and information from your body that something is being damaged by your actions. Using symptoms of an injury for therapy does play a limited role in the healing process as an indicator the therapy applied is having the desired effect.

## **Injury Cycle**

Performing arts injuries are the result of actions and choices. The injury cycle is a way to look at these actions and choices. Understanding each step in the cycle can help you to stop your own injury cycle.

The following is a circle representing the injury cycle with one step leading to the next. The injury cycle is a feedback loop; in other words, each step feeds the next and continues the cycle. This cycle can be interrupted at any step. The more steps of the injury cycle you remove the more likely it is that injury can be avoided or stopped.



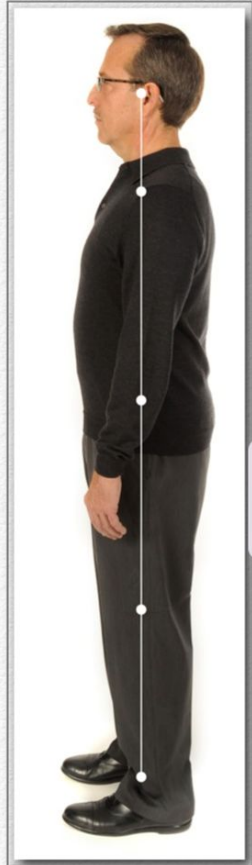
### *Connected Alignment*



Connected Alignment is defined by the balanced alignment of the body in the gravitational field as viewed here from the side and front. This alignment is represented by the plumb line with the dots at the center of each joint; one aligned over another.

The more places you deviate from this accepted norm the more

likely you are to incur playing injuries. The two biggest causes of disconnected alignment are: sitting too much and lack of whole body movement, both of which are actions and choices.



### *Misalignment while playing your instrument*

Misalignment while playing an instrument is so common as to be epidemic. Attempting to correct your alignment while playing or practicing is virtually impossible. With that said, making the choice to take a different playing action is something you can do. For example, bringing your instrument to you—not you to your instrument—is a doable playing alignment action.

### *Holding one position too long without moving*

Holding a position too long without moving causes a long list of anatomical and physiological problems. The human body is designed to move. Movement is necessary to maintain health, proper function and wellbeing. When you make a choice to stop your body from moving by taking the action to intentionally hold your body in one position too long, you cause tissues to be injured.

### *Ignoring warning signs*

Before tissues are damaged the body makes you aware of the impending injury by giving you signals. These signals can take many forms such as tightness, stiffness, and burning, aching, shortness of breath, numbness or tingling. Choosing to ignore these signs will lead to injury.

## *Physical dysfunction*

Physical dysfunction is preceded by the above signs and culminates when you can't play in some form. This would include mild dysfunction like not being to play as long without some sort of discomfort or focusing on the discomfort instead of focusing on the music. Severe dysfunction is not being able to play at all.

# Chapter 6

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**Twelve Common Myths about Being in Pain:  
Violating the Seven Principles**

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Good technique and ease in playing your instrument are an expression of following The Seven Principles. Understanding and applying these provide many benefits, two of which are: helping you to understand what therapies might be most effective and assist in effectively dealing with the cause of pain issues rather than the symptoms; and helping you to play better and stay out of pain. Here are the seven principles followed by explanations for each principle.

**1. It is NOT normal to play in pain.**

A relaxed pain free body is normal.

**2. The body is an inseparable connected interdependent whole.**

There is no such thing as a body part.

**3. The body is self-healing.**

Outside influences either assist or hinder the body in healing itself.

**4. Site and Source are different.**

Most of the time, the site of the pain is not the source of the problem.

**5. Correct body alignment is essential.**

Relaxed movement comes from correct alignment.

**6. Integrated body movement is vital.**

Whole Body Rhythm is using connected alignment to move any part of the body

The following myths violate one or more of the underlying principles of Movement Alignment Technique:

*Myth 1: Nothing can be done about my pain.*

*Fact 1: I do not have to live with the pain.*

“Nothing can be done” is an expression of frustration and hopelessness that stems from hit or miss approaches to performing arts injuries. For decades musicians have used a limited approach of fixing the site or symptom of their pain without success. Today there is more information, resources, and excellent therapeutic methods available to the player in pain. You have in your hands a new yet proven tool as well as a way to evaluate what can be useful as a therapy.

*Myth 2: No one else has my problem.*

*Fact 2: I am not alone.*

The fact is performing arts injuries are so common they are epidemic. Our grant studies demonstrated that musicians that play the same instrument have similar body misalignments and similar pain symptoms.

According to *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning* (Parncutt and McPherson, ed., Oxford University Press, 2002), 76% of players in professional U.S. orchestras



and conservatory students had at least one serious medical problem that affected their playing. The most problems were reported by string players followed by woodwind, brass, and percussionists. In addition, music students with playing-related complaints spanning 14 academic years of playing had 8.3 injuries per 100 registered music performance students in an academic year.

The conclusions reached in the above study are clear. Youth offers no protection against most of the medical problems experienced by musicians and, correspondingly, being a musician carries risks at all ages.

*Myth 3: I don't have time to deal with this right now.*

*Fact 3: I can do it today or have a larger problem tomorrow.*

If you don't take the short but inconvenient time to put oil in your car when it's needed, you will spend a lot more time, money, and energy when your engine burns up. It's the same with your body. If you don't take the time to address the cause of the small nagging pains now, you could face the very real possibility of not being able to play at all.

*Myth 4: I can play through my pain.*

*Fact 4: I need not suffer while playing my instrument.*

Our bodies have a wisdom that we ignore at our own peril. When pain is

present, it is an indication that something is wrong and damage to the body is at hand. Pain is a request from your body to stop and reassess. It is a call to change something. We should play music, not suffer through music. The operant word is "play."

*Myth 5: Musicians are athletes who stretch and strengthen to fix the problem.*

*Fact 5: Musicians are conceptually different than athletes.*

Relating musicians to athletes leads to a hit or miss therapeutic method of applying strengthening and stretching. While being fit is important to healthy playing, with very few exceptions strength is not needed to play an instrument. To add to that, the overwhelming majority of people today, regardless of their profession, exhibit the following dysfunctional posture: forward head position, shoulders rounded or hinged forward and forward pelvic position. Because the muscles around the joints of these dysfunctional areas are already lengthened and therefore more susceptible to injury, further stretching frequently is not helpful. In fact it can often be harmful.

*Myth 6 : Where it hurts is the source of the problem.*

*Fact 6: Where it hurts is seldom the source of the problem.*

**"He who treats the site of pain is lost."**

Karel Lewitt, M.D., Dr.Sc., Professor, Rehabilitation Clinic, Second Hospital, Charles University, Prague, Czech Republic

Most therapies focus on the site of the pain, which is a hit or miss proposition. This approach only deals with the symptom and not the cause of the pain. Wrist and hand are widespread problems in performing artists; mistakenly the wrist is often considered the primary issue. The wrist joint is at the end of the kinematic or movement chain that begins at the body's core, the center of all movement power. Improper shoulder position can separate the wrist from this center of power making it work by itself and therefore susceptible to injury. In this instance the wrist is in pain, however the source or cause of the problem is the position of the shoulder.

*Myth 7: The body can separate into parts functionally or therapeutically.*

*Fact 7: The body is an indivisible whole.*

No part is capable or designed to function by itself, including the mind, which cannot be separated from the body. Therapeutic approaches or techniques that focus on a body part frequently miss the underlying cause of pain.

*Myth 8: My pain will go away if I take drugs.*

*Fact 8: Drugs do not address the source of the pain.*

Pain killing drugs mask the body's attempt to communicate that something is wrong and damage is imminent. It is analogous to disconnecting the oil light (Site) in your car in order not to see it. It doesn't change the fact that the oil is low (Source) and you are in danger of burning up your engine.

*Myth 9: I have to go to a professional to get relief.*

*Fact 9: I know my body better than a professional.*

Our bodies are self-healing mechanisms. When pain strikes, fear often blocks our trust in ourselves and the healing power of our body. When a bone is broken, the ends of the bone are placed together and the doctor puts a cast around the break. Neither the cast nor the doctor heals the bone. The body heals itself. The MAT system in this book is self-administered. It is an example of a technique that assists your body's innate healing power and requires no professional assistance.

*Myth 10: You can change your playing position (for the better) by thinking about it or through self-talk.*

*Fact 10: Your structural alignment or posture is only temporarily under your conscious control.*

Your postural reflexes are on the same neurological pathway as your deep tendon reflexes. Deep tendon reflexes make your knee move when

*Fact 12: Getting to the point of pain happens over a period of time.*

When you feel pain from playing your instrument, it is usually an “end stage” signal from your body that something is wrong. Before performance pain is felt, there have been numerous signals from your body that you are headed for physical problems. We must recognize, pay attention, and not ignore the signs.

Here are the warning signs:

- Breaking Connected Alignment (shoulders rounded forward, forward head position, walking “duck footed”—toes pointed outward)
- Maintaining the same playing position for extended periods of time
- Performing habitual movements to relieve mild discomforts (turning your head to “pop” your neck, shaking out your hands, rubbing or kneading muscles).

the doctor hits it with a reflex hammer. That response is out of your conscious control, which is why you can only consciously change your posture when you think about it. As soon as you play a difficult passage, look at the conductor, or turn the page, your posture will default to old habits. MAT uses this neurological fact to support you in changing your postural alignment through sequenced movement.

*Myth 11: My instrument’s size and design determines my posture.*

*Fact 11: Correct Body Alignment can be applied in every playing situation.*

Each instrument presents its own ergonomic challenges. Most of the time players think the only way to overcome these challenges is to mold themselves around the instrument. Many of the primary postural playing issues can be addressed using the information and techniques in this book. Here is an example from The Seven Principles:

If you habitually mold your body around your instrument, like pushing your head forward to meet your mouthpiece or rounding your shoulders to bow, pluck, or conduct, it will break your connected alignment. When your alignment is broken it does not allow you to use stored elastic energy (SEE) to play effortlessly. No matter what your ergonomic challenge, lifting gently from the crown of your head can help you find an aligned playing reference point.

*Myth 12: If I’m not in pain, I don’t have a problem.*

### Step 1: Rate your pain

Begin your alignment routine by taking a quick moment to rate your discomfort on the scale below.

“0” is no pain/discomfort and “10” is “I can't function”

0 1 2 3 4 5 6 7 8 9 10

### Step 2: Relax unneeded tension

Only the part of your body that is moving or being stretched should feel slight muscle tension. If you do these movements as if you're working out, other parts of your body will tighten. Your goal is to use only the muscle tension needed to accomplish each movement. If you find yourself saying “This is too easy—I'm not doing anything,” then you are doing the position/movement correctly.

### Step 3: Begin your alignment routine

The sequencing of the positions is essential to their effectiveness.

**NOTE:** For MAT to be effective you must do the movements/positions in the order given.



1. Lie on your back with your legs on a chair. Knees and hips are bent at 90 degrees. Your knees and feet are 4-6 inches apart.
2. Keeping elbows straight clasp hands over the center of your chest.
3. Move arms to the floor then back to arms straight up over chest.
4. Keep abdominals relaxed and upper back flat.

Do **3** sets of **10** repetitions

