

Injury Prevention and Management:

A Little Help from Two Hurt Violists

by Leah Kovach and Heather Casparie (2009)

We know from experience how stressful the life of a musician, particularly a music student, can be, and the strain that playing an instrument puts on your body. As two violists that went through serious injuries, we both experienced the frustrations of going to doctor after doctor and not knowing where to look for solutions. Although the relatively new field of Performing Arts Medicine is quickly growing, it can still be incredibly difficult to find information and treatment if you are suffering from a performance injury. We tried to compile a list of resources that were helpful to us during and after our ordeals and could be used by any musician experiencing pain or interested in preventing it. For reading material, we would recommend starting with *Playing (Less) Hurt*. Also, strongly recommended are the two videos on the list, *Therapeutic Exercise for Musicians* and *Yogasing*, which are important resources for all performing artists. We have each included a personal journal describing our experiences. When we were injured it helped to know that other people had gone through the same thing. It was certainly helpful for us to put this together and share our stories and hopefully, you will find this useful. We wish you the best of luck!

SELECTED RESOURCES:

Bishop, Dorothy *The Musician as Athlete* (Calgary, Canada: Kava, 1991)

This is a helpful book which discusses in detail the various causes and types of performance-related injuries and discusses some alternative healing approaches, with an emphasis on overall body wellness. Because this book was written almost 20 years ago and there has been an incredible amount of literature published on this subject since then, it is possible that some of the information is outdated. I would say that this book is most valuable for the extensive discussion of alternative healing methods and remedies which I have not found in similar books.

Castleman, Heidi *Five Common Causes of Physical Injury for Violists: Comments of a Master Teacher on Approach to the Instrument* ([Medical Problems of Performing Artists: Volume 17 Number 3: Page 128-September 2002](#))

This article, written by a viola professor at The Juilliard School, is specific to viola injuries. Ms. Castleman explains the five most common causes of injury: improper instrument fit, faulty practice habits, poor body support for the instrument, holding the instrument by squeezing rather than balancing, and squeezing with the thumbs. Proper instrument sizing and set-up is imperative to insure there is no injury. For example, the angle of the left elbow should be about 90 degrees beneath the viola. Also, the importance of warm-up and mental practice are explained. This article also includes common causes of pain and their likely sources. For instance, if the outside of a player's left wrist and forearm hurt, it may be due to improper left arm rotation. This is a brief article that offers some quick tips on instrument set-up and common causes of viola player's pain.

Chodron, Pema *When Things Fall Apart: Heart Advice for Difficult Times* (Boston: Shambhala Classics, 2000)

An injury can be a difficult and depressing time in a performers life. This book offers advice on how to get through difficult times from the perspective of an American Buddhist nun. Ms. Chodron offers advice on meditation, how to relax with ones situation, and how to move toward a painful situation rather than running from it. She speaks of the Buddhist belief in dharma, giving up hope, and making peace with the impermanence and changes in our lives. In Ms. Chodron's words, "If we are willing to give up hope that insecurity and pain can be exterminated, then we can have the courage to relax with the groundlessness of our situation." This book might be very helpful in coping with the stress that accompanies an injury.

Conable, Barbara *What Every Musician Needs to Know about the Body: The Practical Application of Body Mapping to Making Music* (Portland, Oregon: Andover Press, 2000)

This is a practical, hands-on guide to the technique of Body Mapping. It is filled with creative anatomy illustrations and instructions on achieving proper alignment and muscle movement. The book begins with the head and then moves down the body to the legs and feet. There is also a chapter on breathing, as well as achieving primary control. The author has also published *How to Learn the Alexander Technique: A Manual for Students*. This book includes Alexander Technique ideas and practices.

Freymuth, Malva Susanne. *Mental Practice and Imagery for Musicians: a practical guide for optimizing practice time, enhancing performance, and preventing injury* (Mmb Music; Spi edition (June 1999))

A violinist who has experienced crippling pain first hand wrote this handbook. Through her own journey, Ms. Freymuth learned how to integrate mental practice into her normal practice schedule, saving both physical strain on her body and time. Detailed ways to develop your mental practice skills are included. Ms. Freymuth has developed a three-step practice loop: ideal projection, action (or actually playing the material), and mental recall. She also explains how to practice your mental skills by recognizing any difficult areas in your representations and working on them. By doing five minutes of mental practicing, followed by five minutes of physical practicing, you are automatically incorporating breaks into your practice time. Breaks are essential to letting your muscles heal. This is a very hands-on book that will teach you a different approach to avoiding pain or working with the pain you may already have.

Hoppmann, Richard A. *Instrumental Musicians' Hazards* (Occupational Medicine 16, no. 4 (October-December 2001): 619-631)

This is an excellent and concise article containing an overview of research in the field and some performing arts medicine history. The author outlines the types of common injuries and their frequency in professional musicians and discusses the types of treatment available. This article is published in an Occupational Medicine journal and is obviously intended to assist practitioners in that field to treat musicians. It is kind of a how-to manual with a detailed procedure for making a diagnosis, treating the problems, and preventing future recurrence. It also provides a comprehensive list of other resources available on the topic.

Horvath, Janet *Playing (Less) Hurt* (Kearney, NE: Morris Publishing, 2002)

This book for us was the most useful resource available for injury recovery and prevention for musicians. It has an incredible amount of information and is also a fun, easy read. The author spends a lot of time talking about the unreasonable demands of playing in a professional orchestra and what musicians can do to advocate for themselves. All of the different types of repetitive strain injuries are explained, as well as other health problems musicians face, such as hearing loss. Because the author is a cellist, there is an invaluable advice specific to string players. The book includes advice for practice habits, recovering from injuries, and illustrations of stretches. There is also a comprehensive resource list at the back of the book with names of clinics and practitioners around the country, and names of companies who sell products specifically for musicians.

***Therapeutic Exercise for Musicians* (A one-hour VHS available from MMBMUSIC, INC. 1-800-543-3771)**

This is a video of a lecture given at a *Playing (Less) Hurt Conference* in Minneapolis by Dr. Richard Norris, based on the course *Physical Education for Musicians* which he taught at the New England Conservatory. Dr. Norris goes through a one-hour routine which he has developed for musicians. It includes warm-up and breathing exercises, stretching, strengthening, non-impact aerobics and instrument-specific exercise. Dr. Norris understands that musicians are often on the road and this is a routine that can easily be done anywhere. This is a wonderful resource and beneficial for all performers.

***Yogasing Yoga for Singers and Performers* (DVD available from www.yogasing.com)**

This is a yoga routine developed by Suzanne Jackson, an opera singer with extensive background in yoga. There is an emphasis on postures for breathing, relaxation, stress relief. The video is divided into sections, including one specifically on breathing for singers, another

called Yoga for Sleep, and a section called Chair Yoga, geared towards musicians who spend rehearsal time sitting. This is an excellent routine for both beginners and people who practice yoga regularly.

HEATHER CASPARIE'S STORY

It might sound dramatic, but my arm injury completely changed me as a musician and as a person. Though I was devastated at the time of my injury because I could not play, in the long run, the changes that evolved in my playing and life turned out to be for the better. If you currently have an injury that is preventing you from playing, I'm sure you will understand how difficult it was to not be able to do the thing I had been doing for most of my life. The purpose in writing my story is to give an overview of my last six years. Hopefully, this will give comfort to those who are going through physical problems; many musicians dealing with injuries end up benefiting from their struggles. I never had arm problems until my senior year at The Manhattan School of Music. I was playing more than normal to prepare for recitals and auditions. Looking back, the stress of all my upcoming commitments probably contributed to the pain I began to feel shooting up my left forearm and to the numbness I felt in my left hand fingers. It began as a small pain, but the more nervous and tense I became because of the pain, the intensity of the pain increased. Soon, I had almost no feeling in my left fingers and had shooting pains in both arms. I was devastated. My graduation recital for which I had worked so hard was in a month. I had no choice but to cut down the recital program and to play it without having practiced for two weeks.

Early on, there were signs that I was heading for trouble; I never imagined I could hurt myself so badly. I had a terrible warm-up routine before I began to practice. In other words, I didn't warm up! I would head to school and challenge myself by playing my concerto completely cold. I figured if I could play it well under these conditions, then I could play it well anywhere. I would repeat things hundreds of times without a break thinking this was the way to drill difficult passages. I believe stress was a major factor. My body was very tense from all the pressure involved in simultaneously practicing enough to graduate and take auditions. I never allowed myself time to do anything to relieve this stress, like exercise or yoga. I figured that stress meant I was working hard. In hindsight, I can't believe how naive I was about what it takes to protect myself as a performer.

Now came the most frustrating part of my story - finding a doctor to help me. I went to hand surgeons, physical therapists, chiropractors, acupuncturists, rolfers, and so on. Most doctors would casually tell me that I would never play again; they did not understand the enormity of a statement like this on a lifelong musician. After six doctors, the rolfer figured out that I had an anomaly with my left wrist that placed it slightly off center and didn't allow for the rotation usually associated with viola playing. I was born with this limitation, but no one, including myself, had ever noticed it. I was basically fighting against my natural wrist shape, contorting it into the "correct" position. I'd done this without a problem for many years, but the additional stress and bad practice habits pushed me over the edge. The rolfer couldn't help me, so I moved on. By about the thirteenth doctor, I finally found an occupational therapist that was a former pianist. Being a musician herself, she understood my fears, frustration, and depression. By this point, I was so depressed that I couldn't even go to concerts because I was jealous I couldn't play. Since there was no changing my born wrist shape, the therapist started me on an exercise routine that worked with my individual hand shape. I also commissioned a viola made to my unique hand shape. By this point, I realized that I had to work with my situation instead of changing it.

Once I had the proper viola and insights, which took almost a year to find, I began the extremely long process of rehabilitation. I can't even describe how miserable I was. I had never

realized how much of my identity was wrapped up in being a musician, and I felt lost without it. For five months, I didn't play at all. Once I began again, it was for 15-minute increments. After a year and a half spent rehabilitating, I decided to start my graduate studies at Indiana University. It soon became apparent that psychological factors were holding me back as much as the physical factors. The humiliations of sounding like a beginner made me want to give up; I had no confidence left in my ability. Still, whenever someone suggested finding another field of study, I silently resolved to never admit defeat. Dealing with my depression and anxiety during this time allowed me to begin to heal mentally. Physically, I slowly began to learn more about my body. If something hurt, I changed it by relying on warm-ups, exercises, and practicing less but with more concentration. I also learned to let go of the past, trying not to sound exactly as I had before the injury. I was becoming a completely new player. There were definitely setbacks where I felt there was no hope. It took many years for me to feel I had a chance to have a career in music again. Eventually, things worked better and more efficiently because I took the time to figure out the best remedy for my body and my mind.

It has been six years since the beginning of this journey. Even now, I run the risk of my injury returning. I will never be able to practice as much as some people and I will need to do physical therapy for the rest of my life. Also, my views on music changed during this ordeal. I now appreciate playing much more because I feared I would never play again. I've learned to work with my body in its most natural state rather than force myself into unnatural positions or push my body beyond its limits. My only regret is that no teacher noticed my struggle to turn my wrist into the "right" position, which would have helped investigate the cause of my pain early on. As a teacher myself, I have learned to be aware of the unique needs of each student and his/her physical and psychological limitations. In the end, I believe I am a better violist even though my path is not what I expected it to be. Good things evolve from difficult situations if we choose to learn from them.

LEAH KOVACH'S STORY

I started having significant arm pain in the middle of my senior year of college, but I am sure that my problems had earlier roots. I don't remember having any pain related to playing the viola in high school, but I also rarely played more than three hours a day (excepting two summer festivals). Since I came to college and my playing hours more than doubled, I occasionally had back and neck pain, especially between my shoulder blades. This would always get worse during the weeks where my orchestra was playing in the opera, but since the pain was never very severe and I love playing operas, it didn't bother me too much. I don't feel at all that I was in denial about the occasional back pain or unwilling to confront it. I started doing yoga during my sophomore year, and have been continuing since then. I also stopped using a shoulder rest that year and felt that I had very good body awareness and thought about my posture regularly. Although perhaps I wasn't always as consistent as I should have been, I did try to stretch before I played, and warmed-up slowly on the viola. I started getting regular massages my junior year as a way to relieve this occasional back pain. Having witnessed several friends and colleagues go through debilitating injuries, I was very aware of this danger and thought I was doing all the right things to prevent it from happening to me.

My occasional back and neck soreness gradually turned into constant pain during my senior year. Throughout the year, I started having severe pain in both arms, always more on the right. I was under much more pressure musically this year than I had ever been before, and was also practicing more than I ever had. During the winter break, which was usually a time for my body to rest and rejuvenate, I participated in the New York String Orchestra Seminar, which was an incredibly intense and rigorous 10-day program. Although this was definitely one of the most exciting and memorable experiences of my life, and I would do it again in a heartbeat, I know that this greatly contributed to my ongoing pain issues. I followed the Seminar with the most challenging semester of my life, both in terms of playing hours and pressure. I was principal viola in one of the school orchestras, rehearsed almost daily with my quartet to prepare for a recital and a competition, auditioned for several summer festivals, participated in a local competition, auditioned for the graduate program, and also prepared for my own senior recital. I had some non music-related stress in my life too, such as a looming incomplete from the previous semester and the rest of the classes I needed to complete in order to graduate. I pushed myself constantly, focusing almost exclusively on short term goals of getting through the next audition, coaching, or performance. I definitely knew that at some point I would have to stop, and I was even considering postponing my recital to the summer. I thought I was doing everything I could to relieve the pain (besides not playing, of course). I got very frequent massages, stretched and did yoga every day (although when my arm pain got worse I was unable to do many of the yoga postures), iced my arms almost every night, and took hot baths. I also saw a physical therapist at the school's health center who diagnosed me with tendinitis, gave me ultrasound massage on my arm, and, most importantly, wrote me a note to get out of orchestra the two weeks before my recital. I somehow made it through the rest of the semester and finished my degree. I had committed to playing in the Spoleto festival, which would start only a week after graduation. When it came to the time of graduation, I realized there was no way I would be able to make it through this festival, which I knew would have double orchestra rehearsals most days. I had to cancel going, which was incredibly difficult for me emotionally. I decided I would take off the summer to give my body some rest, figure out why I was having so much pain, and then fix it.

If only it were that simple!! After graduation, it felt like my body basically collapsed. It was as if I had been on a roller coaster that suddenly came to a crashing halt. The combination of my physical exhaustion, disappointment about canceling my summer festival plans, and devastation about my quartet losing in a school competition, which we had worked all year for, made me sink into a depression and fatigue which felt similar to when I had mono in high school. The pain not only made me unable to play, but interfered with most of my daily activities, like cooking, brushing my teeth, typing, driving, and even brushing my hair. I took three weeks off from playing the viola and then began my journey of doctor's appointments. Even after three weeks without playing, I still had constant pain in my neck, back, and arms. I went first to an orthopedic surgeon for a diagnosis. He said everything looked fine and he didn't think I had tendinitis, probably just muscle fatigue. I felt like he was in a hurry and brushed me off. The only useful thing he pointed out was that I have hyper mobility, or laxity, in my joints. Because I told him my worst pain was in my forearms, he referred me to a hand physical therapist, who also found nothing particularly wrong with my hands. She commented on some postural issues I had, also told me I have joint laxity and that I should stop doing yoga. She did some strength tests and was astonished by how weak I was. I also didn't realize how weak I had gotten. I know part of the weakness was from losing a lot of weight (and therefore muscle) in the past year from stress. I had also been avoiding any lifting with my arms since I started having pain- the first thing anyone tells you when you have pain is to avoid heavy lifting. Because she didn't find any specific problems with my hands or lower arms, she suspected the pain probably had roots in my shoulder or back, so she referred me to a different therapist in the same clinic who was a shoulder specialist. When I went to see him, he also noted postural issues, joint laxity, and extreme weakness. He said that my pain was most likely in the connective tissue from muscle overuse, and he didn't think I had any kind of tendinitis. He gave me a set of exercises using bands and told me to come back in two weeks or call if I had any problems. I was a little frustrated because I felt like nobody that I had seen so far understood how serious and career-threatening this was for me. At this point I was practicing about 20 minutes a day. None of the doctors could tell me whether I should be playing or how much, so I decided I would gradually build up and hopefully be able to practice several hours by the end of the summer. My next appointment was with an alternative doctor and acupuncturist who I had seen many years before for food allergies. She did a few acupuncture sessions for me, which I don't think had any major results, at least not long-term. She gave me some herbal supplements and homeopathic remedies to take, mostly for getting rid of toxins from my body. I also started seeing a wonderful massage therapist who had worked with many professional athletes. He looked at my situation as if I were an athlete, and I felt like he was the first to take me really seriously. He was astounded when I told him how many hours a day I usually played, and said it didn't surprise him that I was having problems from that. He was very thorough and dedicated, and made sure I had warmed up my muscles before the massage and then iced them afterward. I always felt much better after sessions with him, but it felt like it was never enough, and the pain relief I had usually lasted only about a day. Several people had recommended swimming for pain relief and building arm strength, so I made an appointment with a teacher I had heard about who had studied Alexander Technique and worked with a lot of people recovering from injuries. I knew how to swim, but I thought I should make sure I was doing everything properly to avoid any further injury. I had a few lessons with her and started swimming every other day, alternating with doing my exercises from the physical therapist. I was definitely building strength, and the exercise made me more energetic, but I was still in

constant pain. One big problem that I realized later was that I only learned to swim free-style, which reinforced my postural problems of chest tightness and shoulders curved forward. When I went to visit my father for a week, I went to see a friend of his who was a chiropractor. He said there was nothing wrong with my spine, but pointed out that my head was forward and my shoulder blades were sticking out too much. He did two "adjustments" and used a laser treatment in my right elbow for forearm pain. I didn't feel any improvement from this.

During about the middle of the summer, I started having numbness in my right hand. It didn't make sense to me why my symptoms would be getting worse after I had hardly played for almost two months. I told my physical therapist, who seemed confused and said it was possible I had some nerve compression in my back. So, I decided to see a neurologist. It turned out that the neurologist had been a recorder player in the early music institute at my school, and I was excited to finally see a doctor who knew some thing about the lives of musicians. But, of course, she couldn't find anything wrong with me neurologically. I was getting really frustrated that I still didn't have a name for my problem, even though I know most named conditions are not good. The neurologist made an appointment for me to have an EMG on my upper right extremity, which is some kind of test using various needle pokes and electric currents to test for nerve problems. This test came back completely normal. The doctor who performed the test said she had seen similar symptoms in many other thin women. Still feeling uncertain, I decided to see a different orthopedic surgeon for a second opinion. He also found nothing abnormal about me other than joint laxity, said that there was no reason to do an X-Ray and that he thought I was doing all the right things. This was about a month before I needed to go back to school and I was still in constant pain. I continued seeing my massage therapist, swimming, and doing my physical therapy exercises with no great improvement and then headed back to start my first semester of grad school.

I was extremely lucky to have a very understanding teacher and orchestra manager who made it possible for me to return to school with my limited amount of playing. It was very stimulating to be back in a musical environment, but at the same time frustrating to be on the sidelines. I imagine this is what it must feel like for athletes sitting on the bench during games- and it's not easy. My goal at this point was to try to find some area of tension in my viola playing that could have caused all of this. With the help of the brilliant Mimi Zweig, I went back to the basics of viola playing. One possible cause of my right forearm pain was tension in my thumb, which I think I had developed many years ago in an effort to compensate for joint laxity in that finger. For a few weeks, I tried playing on a smaller and lighter viola to see if my instrument was contributing to the pain. I didn't notice any difference with the smaller instrument, but it is something that I could experiment with more in the future. I also enrolled in a postural alignment class and started doing research about overuse injuries in musicians. I was overwhelmed by the amount of information I found! Much of what I read were things that I had already heard or had already been doing, but it was very reassuring to realize how common these kinds of problems are. It makes me realize what a serious the lack of understanding of the body there is among musicians. I find it very interesting that the field of "performing arts medicine" seems to be a recent development, and it is very difficult to find any accounts or information about performance-related injuries before the last 30 years. It makes me wonder if it is simply that people are practicing more in recent years, if it has to do with the modern lifestyle, or if people just didn't talk about their injuries.

I have thought a lot about what I could have done differently to prevent all of this, or at least to stop it from getting to the point where I really couldn't play at all. I think that having a

slender build and playing a large instrument, as well as having joint laxity, put me more at risk for this type of injury. Aside from my natural body build and postural problems, which I thought I had addressed, I think the other biggest factor in my case was weakness. Although I have always had an active lifestyle and stretched a lot, I usually shied away from any kind of upper body strengthening because I was worried that soreness would interfere with my playing. I had been told that string players should never lift weights with their arms. This is an example of one of the myths, or just misunderstandings, musicians have about the physical mechanics and limitations of their own bodies. For a profession that is so dependent on high-level physical function and ability, I think taking care of the body and the muscles tends to be highly overlooked.

I finally had some improvement in my symptoms when I went to see a faculty member in the Kinesiology Department at my school (Indiana University) who works primarily with athletes, but also had treated dancers and some musicians. He did a much more thorough examination than any of the doctors I had seen, and actually found things that could have been causing my symptoms. He noticed extreme muscle imbalance and tightness, severe postural problems, and lack of circulation to my right hand, which he said could be part of something similar to Thoracic Outlet Syndrome. He began a treatment called Graston Technique, which is like a deep-tissue massage using special metal tools that are shaped specifically for different muscles. I felt remarkably better after just one session, which I think was partly due to my emotional relief at finally finding someone who I believed could help me. I have been seeing him twice a week for five weeks now, and my improvement is dramatic. He has also started me on a new and very challenging exercise routine that focuses on my back and shoulders. While going through this process, it is difficult to distinguish soreness from pain, making it hard to measure my improvement. It is, however, not always steady improvement. I've already gone through a few frustrating bumps in the road and I'm sure there will be more. For instance, I had no numbness and very little pain for about ten days and started playing a lot more and then all of a sudden I had a shooting pain in my forearm accompanied with very severe numbness and I felt like I had to start over again. This was incredibly discouraging, but I did get back on track. Although it varies depending on the day, I can now sometimes play for 15-20 minutes straight without any pain at all. This is great progress, but also makes me aware of how far I still have to go and how long it may take before I can play for several hours.

As difficult this whole ordeal has been and continues to be for me, I think in the long run I will be better off. I am developing a much better awareness and understanding of my own body as well as the physical aspects of viola playing. I am still in the process of retraining my muscles to get rid of the habits that I think contributed to this, but I can already feel a difference in my viola playing. I don't know if I will ever be able to play as much as I did in the last few years without problems, but at least in the future I will know when to stop and what to do if I have pain. The greatest thing I have gained from this experience is that it has reaffirmed for me how much I want to play music. Not being able to play the viola made me realize the joy it gives me, and I think I took for granted how lucky I was to be pursuing a career in something about which I am so passionate. Although I have had to miss out on some wonderful opportunities, I look forward enthusiastically to a future in music and I hope that I will more fully appreciate and enjoy playing.