

# Therapy for Carpal Tunnel Syndrome

BY JASON PRISET

**M**y story began as it has for many other musicians. I was just finishing my master's degree in the spring of 2006 at Stony Brook University and had already been accepted into its doctoral program starting in the fall. At the time I was playing a lot—jazz with the big band and in a jazz ensemble comping chords. I was learning the theorbo and some very basic basso continuo playing in Baroque Ensemble, and preparing for my master's final recital. The repertoire for my recital was quite ambitious, as it should have been for a student going into a doctoral program. The recital included *Tres Apuntes* by Leo Brouwer, BWV 996 (Suite in E minor) by J. S. Bach, Sonatine III, Opus 71 by Mauro Giuliani, and *Koyunbaba* by Carlo Domeniconi.

## Injury

After finishing the spring semester and upon completion of my final recital on April 26, I began experiencing some crippling issues with my left hand. I began to notice the pain while playing theorbo during a series of Baroque Ensemble concerts that followed my recital.

Suddenly, I was at a crossroads. I felt I had a multitude of opportunities in front of me, but I couldn't pick up an instrument without experiencing severe pain in my left hand. This was most certainly some form of carpal tunnel, and I sought the advice of a number of doctors. When I met with them, I was struck by the immediate disinterest they showed on learning that I was a musician and not even remotely interested in surgery. Rest and anti-inflammatory medication were their only recommendations. Most likely they were just as much in the dark as I was as to what the actual problem was.

## Pat O'Brien

"Go see Pat" was the advice of a couple of close friends of mine. Pat? Who was Pat and what could he do for me? So I reached out to Pat and described my problem. He immediately scheduled me to come

in for a lesson. Before seeing him for my first lesson, he gave me, in an email, some of the best advice I have had to date about dealing with inflammation and overuse of the hands. On May 17, 2006, he wrote:

*Icepacks are of little use. Fill a large bowl with water and a tray of ice cubes and immerse the area on and off as you can tolerate over the course of about fifteen minutes. Be sure you have time to leave it idle afterward as you should not use it for anything until it returns to normal temperature. You don't want to strain a cold muscle by picking something heavy up with it unwarily.*

*The ice water touches you everywhere and disperses the heat of the inflammation throughout its whole mass. Thus it achieves a better penetration on deeper tissues. Don't do it for too long as you don't want to freeze your fingertips. You could do it a couple of times a day, especially after any exercise.*

### **Pat's Therapy Program: Finger Placement and Adduction**

Pat was one of the rare teachers who, upon entering the room, knew exactly what you needed to learn and exactly which method or exercise would best serve that need. It was not long after completing my master's that I went to see Pat, early in June 2006. I played a part of a single movement from the Bach suite. After about six or seven measures, Pat stopped me and started to explain the finer points of using adduction and abduction in the left hand, and to write out his adduction exercise. Pat realized almost immediately that the problem I had been having all along was a matter of simple mechanics. I, like many other guitar players, had been using only one side of my left-hand fingers, using the abduction muscles rather than using a balance between the adduction and abduction muscles.

The adduction exercise (as seen in the Adduction #1 supplemental sheet) with which Pat began was a placement exercise only, with no playing of actual notes, in VIII position. The position would vary depending on which instrument one was playing. While turning the fingers toward each other (adducting), I would start from the 6th string on the 8th and 9th frets and hold for four beats. I would then release and go to the 5th string and hold them exactly the same way. Part of the importance of this placement exercise was twofold: I was not forcing my hand to press any harder than necessary (which can also happen when using the right hand), and I was learning how to release the tension on the strings and in my body when it was no longer needed.

Eventually, string by string, I would work my way down to the 1st string and, upon arriving there, I would work backward and eventually return to the 6th string. This entire process would be repeated but this

Adduction #1



Placement Only

fingerings:  $\begin{matrix} 2 & 4 \\ 1 & 3 \end{matrix}$  (1/2 step)

whole notes =

VIII

			(i k)	(i k)		(i k)	(i k)			
		(i k)	(i k)				(i k)	(i k)		
(i k)	(i k)							(i k)	(i k)	(i k)

VII

			(h i)	(h i)		(h i)	(h i)			
		(h i)	(h i)				(h i)	(h i)		
(h i)	(h i)							(h i)	(h i)	(h i)

VI

			(g h)	(g h)		(g h)	(g h)			
		(g h)	(g h)				(g h)	(g h)		
(g h)	(g h)							(g h)	(g h)	(g h)

same pattern in each position until:

I

			(b r)	(b r)		(b r)	(b r)			
		(b r)	(b r)				(b r)	(b r)		
(b r)	(b r)							(b r)	(b r)	(b r)

fingerings: 1 4 (whole step)

whole notes =

VII

			(h k)	(h k)		(h k)	(h k)			
		(h k)	(h k)				(h k)	(h k)		
(h k)	(h k)							(h k)	(h k)	(h k)

same pattern in each position until:

I

			(b d)	(b d)		(b d)	(b d)			
		(b d)	(b d)				(b d)	(b d)		
(b d)	(b d)							(b d)	(b d)	(b d)

time starting in the VII position on the 6th string. The exercise was done using the 2nd and 4th fingers in all positions first, and then the entire process was repeated with the 1st and 3rd fingers.

The reason for starting in the higher position was simply that the frets are closer together and therefore easier for the left-hand fingers to reach using adduction. I would then work down toward the 1st fret because the frets gradually widen, making the adduction a little more difficult in the lower positions.

I spent the first two or three lessons doing this specific exercise. Pat would have me perform the exercise from VIII all the way down to I position to make sure I was consistent with my placement in every position.

It was in the first two or three lessons that I realized another aspect of Pat's pedagogy that made him a much different teacher than anyone I had ever worked with. Much of the time during the first few lessons was spent talking about the historical significance of some of the repertoire I had been playing, as well as the physiology of the hands and why I might be experiencing these problems. Lessons at this time were 10–15 percent actual playing. The adduction exercises were not even written out as clearly as they were described and shown on the instrument itself.

With prior teachers I would arrive at a lesson, sit down, and play through a piece. There might be some discussion about the history of the piece and how to make it "sound" more authentic, but mostly the lessons were concerned with using specific fingerings to make certain passages easier to play. There were some exceptions: I had the opportunity to play in a master class with Andrew York (I performed three minuets by Fernando Sor) and York spent almost the entire time on interpreting the various ornaments I performed and how to be even more stylistically interesting with my interpretation. Very little time was spent on technique.

It was during my second lesson that I brought the theorbo to Pat, and he measured the height of the strings off the fretboard. He realized that the action was much too high and strongly advised I get it fixed. Within the context of this conversation, Pat also showed me exactly how to measure the action on any fretted instrument, what would be considered "normal," and what the process of readjustment might involve.

### **Dynamic Adduction Exercises**

Upon completion of the placement exercise at the end of June 2006, the next step was to actually play the notes that were placed, doing so in a descending pattern (as outlined in the Adduction #2 supplemental sheet). In July I began again at the VIII position and placed the 4th finger

Adduction #2



Playing

fingerings:  $\begin{matrix} 2 & 4 \\ 1 & 3 \end{matrix}$  (1/2 step)

half notes =  $\text{♩}$

VIII

			<i>k i</i>	<i>k i</i>	<i>k i</i>	<i>k i</i>	<i>k i</i>	<i>k i</i>	<i>k i</i>	<i>k i</i>			
<i>k i</i>	<i>k i</i>	<i>k i</i>								<i>k i</i>	<i>k i</i>	<i>k i</i>	

VII

			<i>i h</i>	<i>i h</i>	<i>i h</i>	<i>i h</i>	<i>i h</i>	<i>i h</i>	<i>i h</i>	<i>i h</i>			
<i>i h</i>	<i>i h</i>	<i>i h</i>								<i>i h</i>	<i>i h</i>	<i>i h</i>	

VI

			<i>h g</i>	<i>h g</i>	<i>h g</i>	<i>h g</i>	<i>h g</i>	<i>h g</i>	<i>h g</i>	<i>h g</i>			
<i>h g</i>	<i>h g</i>	<i>h g</i>								<i>h g</i>	<i>h g</i>	<i>h g</i>	

same pattern in each position until:

I

			<i>r b</i>	<i>r b</i>	<i>r b</i>	<i>r b</i>	<i>r b</i>	<i>r b</i>	<i>r b</i>	<i>r b</i>			
<i>r b</i>	<i>r b</i>	<i>r b</i>								<i>r b</i>	<i>r b</i>	<i>r b</i>	

fingerings: 1 4 (whole step)

half notes =  $\text{♩}$

VII

			<i>k h</i>	<i>k h</i>	<i>k h</i>	<i>k h</i>	<i>k h</i>	<i>k h</i>	<i>k h</i>	<i>k h</i>			
<i>k h</i>	<i>k h</i>	<i>k h</i>								<i>k h</i>	<i>k h</i>	<i>k h</i>	

same pattern in each position until:

I

			<i>o b</i>	<i>o b</i>	<i>o b</i>	<i>o b</i>	<i>o b</i>	<i>o b</i>	<i>o b</i>	<i>o b</i>			
<i>o b</i>	<i>o b</i>	<i>o b</i>								<i>o b</i>	<i>o b</i>	<i>o b</i>	

on the 9th fret and 2nd finger on the 8th fret. Now, I would actually play, starting with the 4th finger, then the 2nd finger. One important aspect of this was to play in a legato manner: after playing the 2nd finger I would have the 4th finger placed on the next string and “transfer” (in Pat’s words) the weight from one note to the next note. This process would be repeated in all positions with the 2nd and 4th fingers first, then the 1st and 3rd.

This was the first time anyone had ever explained to me, in such detail, the importance of transferring the weight from one finger to the next when using the left hand. Many exercises I had done in the past had been done while holding down fingers on the instrument that were no longer needed or being used. This can easily confuse the muscles in the left hand as well as the signal that the brain sends to the fingers. I learned that if I transferred the weight in the fingers—meaning that I would lift and place subsequent fingers at the exact same moment—I could also release the built-up tension in the body and shoulders.

After about two or three lessons of Adduction #2, I moved on to a more advanced form of the adduction (Adduction #3 supplemental sheet). This was late July and I was using all four fingers of the left hand in every possible combination (four!). Just as I had done in the prior two exercises, I would begin at the VIII position and play the pattern from the 6th to the 1st string, then work back to the 6th string. Every position would be played from VIII to I with that pattern (just like the other adduction exercises). After completion of the first finger pattern I would move to the next combination of fingerings. This process would repeat with each finger pattern.

During the very early stages of my therapy I was not playing any repertoire at all, just the adduction exercises. I began to notice a difference almost immediately following the repair of the theorbo and only two months of intense practicing of adduction from June to August.

I kept my discipline and always started with the placement before gradually moving to playing. There wasn’t much more I could do at the time, and I was determined to give it my best effort and see if I could truly work past this problem. I did not seriously pursue any major repertoire on any instrument until a good eight months later, sometime in January 2007.

### **Basso Continuo and the Continuo Collective**

As I was resting and strengthening my hand, through Pat’s advice, I started slowly working on basic theorbo basso continuo playing. Pat had a very methodical approach to teaching basso continuo by starting

Adduction #3

Advanced

fingerings: 4!  
(all variations of 4 fingers)

quarter notes =

1 2 3 4				<i>iklm</i>	<i>iklm</i>	<i>iklm</i>	<i>iklm</i>	<i>iklm</i>	<i>iklm</i>	<i>iklm</i>
VIII -			<i>iklm</i>	<i>iklm</i>				<i>iklm</i>	<i>iklm</i>	
I	<i>iklm</i>	<i>iklm</i>								<i>iklm</i>

1 2 4 3				<i>ikml</i>	<i>ikml</i>	<i>ikml</i>	<i>ikml</i>	<i>ikml</i>	<i>ikml</i>	<i>ikml</i>
VIII -		<i>ikml</i>	<i>ikml</i>	<i>ikml</i>				<i>ikml</i>	<i>ikml</i>	
I	<i>ikml</i>	<i>ikml</i>							<i>ikml</i>	<i>ikml</i>

1 3 2 4				<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>
VIII -		<i>ilkml</i>	<i>ilkml</i>	<i>ilkml</i>				<i>ilkml</i>	<i>ilkml</i>	
I	<i>ilkml</i>	<i>ilkml</i>							<i>ilkml</i>	<i>ilkml</i>

same concept using all combinations of 1234 (4!)

- |         |         |         |         |
|---------|---------|---------|---------|
| 1 2 3 4 | 2 1 3 4 | 3 1 2 4 | 4 1 2 3 |
| 1 2 4 3 | 2 1 4 3 | 3 1 4 2 | 4 1 3 2 |
| 1 3 2 4 | 2 3 1 4 | 3 2 1 4 | 4 2 1 3 |
| 1 3 4 2 | 2 3 4 1 | 3 2 4 1 | 4 2 3 1 |
| 1 4 2 3 | 2 4 1 3 | 3 4 1 2 | 4 3 1 2 |
| 1 4 3 2 | 2 4 3 1 | 3 4 2 1 | 4 3 2 1 |

with the basic chord sequence I, IV, V, I of a bergamasca (also known as *Les Bouffons*). He would begin by writing out the bass only and then a tablature realization of the chords on theorbo. We started in the key of G Major as it was the most suitable for beginning on theorbo. To this basic pattern one could then add a suspension on the V chord. In subsequent exercises, passing basses could be added, including the use of the VI (or first inversion) chord. After doing these in the major key, we would then switch to G minor and play the same sequences. This approach, using the same figures, was then done in most of the other keys without straying too far into the sharp or flat keys. The chord sequence and direction of the bass line used for each key remained the same. In this way I could understand the subtlety of the pattern in each key, which could be quite different from one to the next.

In September 2006 I started playing with the New York Continuo Collective, a collection of amateur and professional lutenists and singers who meet regularly in New York City throughout the year. The rehearsals culminate after a year with a performance. It was with Pat's encouragement that I began to attend and become a part of the Collective. My involvement lasted several years. The Collective was run very much in Pat's style, and the attention to detail was exactly what had attracted me to Pat's teaching style in the first place. As I wasn't playing much advanced solo repertoire at this time, it was a perfect opportunity to get some hands-on experience playing basso continuo.

Although I have since had bouts of carpal tunnel, none have affected my playing. I simultaneously fixed my left hand while refining my technique with Pat. In the spring of 2008 I gave the first of many solo recitals before earning my doctorate from Stony Brook. This was a recital of 19th-century guitar music, including works by Sor, J. K. Mertz, Francisco Tárrega, and Mauro Giuliani. I played using a copy of a Stauffer guitar (an instrument lent to me by Pat). I began working on this repertoire in January of the previous year. This was the first time I was able to pursue advanced repertoire and feel comfortable enough learning the music.

As I mentioned, most of the focus in my therapy was on the left hand. This was the area, I believe, where Pat thought I needed the most guidance and help. However, Pat helped me with my right hand also. When I began basso continuo, I did learn, through simple continuo exercises, to use rest strokes with my thumb. When playing theorbo and lute this is essential as the bass is the most important part and much of the solo repertoire requires this technique. It also helps with an instrument like the theorbo to keep the right-hand fingers planted on the instrument, specifically because of all of the bass strings on a theorbo.



Pat's influence also extended to my choice of instrument. While I was studying with Pat I became more interested in playing early music on the original intended instrument. Much of Pat's pedagogy involved playing the repertoire on the instrument for which it was written, rather than in an arrangement for the modern classical guitar. Much of my training up to this point in my life had been to play early music in arrangement, even though often it wasn't clear whether or not the score indicated that it was an arrangement.

Understanding historical context is essential if one is to successfully perform music from a given period, even if it is an arrangement. In the realm of the guitar, at least a dozen different types of instruments were used between the renaissance and the 20th century. The instrument closest to the modern classical guitar is the 19th-century guitar, but even that has some definite differences. Although 19th-century repertoire can be performed note for note on a modern guitar, certain passages can become clunky and awkward.

It was during my studies with Pat that I learned to see the value and potential in learning more about pre-20th-century guitar and lute repertoire. I also increasingly pursued the possibilities of playing in chamber ensembles. These opportunities were few and far between with my experience limited to the modern classical guitar. Most modern guitar repertoire is written as solos or for very small chamber ensembles. The projection of the modern classical guitar does not compete well with other string instruments. It was with Pat's steady guidance that I learned basso continuo and explored much 17th- and 18th-century chamber music and opera. I brought a plethora of repertoire to Pat for his input. Whether it was baroque guitar, theorbo, 18th- and 19th-century guitar, or modern classical guitar, there were always hidden treasures Pat was able to extract from the music.

His understanding of harmony, history, the physiology of the body, and his ability to tie all three together was unique. I distinctly remember a lesson in which I played a toccata by the 17th-century lutenist Alessandro Piccinini. Pat compared the style of this work to Gianlorenzo Bernini's famous statue of *David* as representative of what the music was describing. This was in contrast to Michelangelo's *David*, which was much more stoic and relaxed than Bernini's version. The tenseness of *David's* strained muscles as he posed ready to strike was equivalent to the musical drama created by Piccinini. The composer used dissonance to create this effect, to be countered by the great relief that breaks that tension in the cadences, especially in the final one. Pat helped me make sense of the work and the overall style of the toccata itself. I had never played this piece as well before.

After helping me fix my hands, Pat applied the same methodical approach to other aspects of my playing and understanding of music. His approach was much different than anything I had ever experienced before. I was still studying with another wonderful guitarist and teacher at Stony Brook, but Pat offered something unique, and I could see the enormous benefit of his style. Pat showed me a more natural approach to plucking the right-hand notes by relaxing the fingertip joints when pulling the finger through the strings. This also facilitated a much better sound. I had never had any intention of pursuing theorbo or lute seriously but Pat, in his own way, simply tended to and nurtured my education until I realized how much more I enjoyed playing and understanding early music, and my love for the music simply blossomed.

On top of it all, he was also incredibly generous and kind. I can remember one of the early LSA festivals in Cleveland I attended in 2010 and sitting in the LSA office (I was assistant director at the time) trying to figure out continuo for a song I wanted to perform with a soprano. The piece was “*Se l’aura spira*” by Girolamo Frescobaldi. Pat, walking by the office, came in and spent the next hour explaining the motion of the harmony and its relation to the text. These were all things Pat had showed me before, whether in lessons or through the Continuo Collective. This was a reinforcement of the idea that each piece should be analyzed according to what the text is about, and what the basso continuo is saying harmonically. This helped me transform the notes on the page into something with musical substance.

At the next festival in Cleveland in 2012, I was trying to figure out a way to lower the action on the nut of my baroque guitar. Pat escorted me into the “Lute Doctors” office and started explaining to me which were the proper tools I needed for such a job, and we spent the next 90 minutes sanding down and fixing the string alignment on the nut. We first tried fixing the existing nut and eventually turned it upside down to make an entirely different nut. We also lowered the bridge saddle as much as physically possible. One solution that Pat had mentioned in the past, and again during this lesson, which was the easiest possible solution is to put larger (in other words, thicker) frets on the instrument, whether it be a lute or guitar. This can only be done, of course, on an instrument that requires tied on frets, but is incredibly useful and something I have put into practice since.

As in my lessons, when I was dealing with my hand injury, the idea was to make the instruments I was playing as easy as possible to play. Sometimes an injury is related to faulty technique, but there are

times when it is due to a faulty instrument. A player might need to alter his or her technique in a negative way when playing a bad instrument, and this can be detrimental. In the end, the baroque guitar we repaired was much easier to play, and I had a much better understanding of what to do next time.

To sum up, much of Pat's teaching method had a lot to do with relaxing the fingers and the body. This might seem obvious to most, if not all, musicians, but to put it into practice is another story altogether. Pat often talked about his dislike for musical education, specifically as it takes place in colleges and universities. His method is very systematic and is based on developing a strong fundamental technique first, and then approaching repertoire given a student's current stage of development. It was Pat's theory that much of the repertoire students are playing in conservatories and college programs is far beyond what their technique is capable of handling at that moment. There is certainly something very valuable to taking the time, at a young age, to learn proper technique. Sometimes the demand to produce advanced repertoire in colleges does not allow for this to develop in a natural way. At a young age the muscles can recover very quickly from physical trauma, and this gets many aspiring musicians through some very difficult repertoire. Unfortunately, there is no telling when the body will no longer be able to cope with such stress.

Fortunately for me, I came to Pat at the right time. One concept that was most important to Pat, and influenced his approach to handling injury, was to find a way around the injury rather than address it directly. In my case the carpal tunnel was not necessarily a result of my playing, but it had a major effect on me when I was playing. The technique I was using in my left hand was not allowing me to play past the injury. Pat's method of using the adduction exercises strengthened the way I used my left hand and molded my hand into a more ideal playing position. Since that first visit to Pat's office in 2006, I have had no limitations on learning any specific repertoire. I completed the DMA from Stony Brook University in May 2011, and have since then been regularly performing as a soloist and chamber musician in New York City, the United States, and abroad. I have also developed an affection for the Lute Society of America, largely because of Pat's connection to it, and have been serving as the director of the festival for the past five years.