

Carpal Tunnel Syndrome Retraining with Patrick O'Brien

BY GREG CHAKO

I began taking private guitar lessons in 1968 when I was 10 years old. I was first introduced to the classical guitar (in private lessons with Edgar Dana) in 1975 at a summer-long music studies program called *The Guitar Workshop* in Long Island, NY. By the early to mid-1980s, I was playing jazz guitar professionally, mostly in trio formats with bass and drums, but also occasionally as a soloist.

After moving to Brooklyn in 1986, I stopped playing guitar altogether and began selling industrial real estate. However, during my five years or so as a salesman (and not a guitarist), I began practicing guitar again, focusing on unusually physically demanding solo guitar arrangements. My love for the guitar was rekindled. I was practicing up to five hours a day.

Advent of Carpal Tunnel Syndrome

It was after I started practicing the guitar again that I began experiencing the debilitating symptoms of carpal tunnel syndrome. A doctor advised I stop playing, and when I did so, my symptoms ceased. But, when I resumed my playing a few months later, the symptoms returned with a vengeance, and the doctor suggested surgery.

Though I was told that surgery was at least 98 percent effective, I did some research before acquiescing to the surgery; I called pianist and educator Dorothy Taubman, because I had heard of her knowledge about common ailments affecting musicians. On the phone she expressed her strong belief that I should avoid any kind of surgery on my hands or wrists, and told me to instead call Pat O'Brien, who she thought could best advise me.

Working with Patrick O'Brien

I called Pat. He concurred with Dorothy about resisting surgery and agreed to meet and help me. We met just a few times, but he made

a lasting and significant impact on me. His overriding theme concerned achieving a balance of mind and body, and most specifically in the muscles of one's hand. He taught that as guitarists, we tend to stretch our fingers in ways which overdevelop one set of muscles at the expense of another, causing an imbalance that can lead to stress and disease. He made the following important points:

- Guitarists have historically been trained improperly; that is, without adequate information regarding repetitive motion injuries. Therefore, harmful habits are easily propagated.
- Guitarists, like athletes, need warmup exercises due to the physical nature of playing the guitar.
- There are two types of muscles in the hand (apart from the thumb muscles that are solely for the thumb): the abductors that control the four fingers spreading apart; and the adductors that control the four fingers squeezing together.
- There can often be an imbalance in a guitarist's hand because the abductive muscles used for finger stretching may be overdeveloped at the expense (weakness) of the adductive muscles. This imbalance can lead to stress. Pat believed redeveloping balance in the hand by building up the weaker adductive muscles can relieve the symptoms of carpal tunnel syndrome.

Pat gave me a series of playing exercises to strengthen my hand's adductive muscles. I was to pay attention to my left, "fingering" hand while playing to see whether my knuckles were apart or together, telling me to bring them together as much as possible and avoid having them splay apart.

While fingering four chromatic notes per string (for instance, A on the 6th string, 5th fret, with the 1st finger; to Bb on the 6th fret with the 2nd finger; to B on the 7th fret with the 3rd finger, etc.), he asked me to play the notes slowly and as musically as I could, while bringing my fingers and knuckles as close together as possible.

Exercise Aids

Pat suggested two isometric exercises, one to strengthen the muscles separating the fingers and one to strengthen the muscles that hold the fingers together. I bought a rubber band-like plastic tube with which to wrap (or tie) two fingers together, and then tried forcing the fingers apart against the resistance provided by the tube. This was meant to strengthen the muscles used for stretching.

I bought some thin, colored rubber, with each color providing a different tension/strength level, and then tightly held a piece between my fingers. To strengthen the “coming-together” muscles, I would hold the rubber between two fingers as tightly as possible, while the other hand forcibly pulled the piece out. The goal was to prevent the rubber from being pulled out, thereby exercising the adductive muscles.

He also suggested general warmup exercises before playing, such as yoga or basic stretching. A couple years after meeting Pat, I relocated from New York to Hong Kong, where I met a classical guitarist who also had suffered from carpal tunnel syndrome. He recommended the Chinese balls, some that are made from steel, small, and with a ringing bell sound when moved; and some that are large and made from solid polished stone. With practice, these two balls should be rotated quickly in one's palm without touching each other.

I also began learning and practicing tai chi, roughly five mornings per week, for about 45 to 60 minutes per session. I mention this because both the Chinese balls and tai chi are precisely what Pat emphasized (in general terms) as a remedy for carpal tunnel: *to exercise and prepare for playing, similar to how athletes do prior to a competition, to balance the mind and body.*

Long-term Recovery Results

Because it wasn't until after I moved to Hong Kong that I began playing guitar professionally again, it is hard to say to what extent Pat's advice helped me with the injury, but my sincere belief and recollection is that his lessons provided almost immediate relief (within weeks) for my symptoms, and that his general advice with regard to warming up and being well aware of the physicality of playing guitar is healthy and valid information for both the treatment and prevention of carpal tunnel. I have not had any serious recurrence of carpal tunnel syndrome, despite playing literally daily for years at a time, in both solo classical and group-jazz formats.

During these “lessons” I had with Pat, I asked him questions about playing classical guitar. I believe that, though the time I spent with him was relatively short (and sweet), he impacted me considerably because of his character and engaging passion for music. For example, I singularly attribute to him my desire to seriously investigate the classical guitar genre, and specifically Spanish romantic music. He told me stories about Francisco Tárrega and Miguel Llobet. He talked about, and demonstrated on his guitar, how important the playing of a single

note was, that is, how many ways one could play it (with variations of volume, vibrato, timbre, etc.) in order to garner the most expressive emotion. He told me about repeatedly bumping into the famous jazz guitarist Jim Hall on the New York subway. These impromptu conversations were, in retrospect, a revealing glimpse into Pat's fascinating psyche and open ears and heart, as much as they were an inspiration to me.

After meeting him I bought the Zen-On publication of Tarrega's transcriptions, and Llobet's *16 Folksong Settings*, and began learning as many of the pieces as I could. I acquired a guitar made by one of José Ramírez's students, and accumulated a small library of guitar music. By the time I relocated to the Far East, a few years after meeting Pat, I could perform two 45-minute sets of solo classical guitar music satisfactorily. I began working frequently as a soloist on classical guitar at the exclusive Hong Kong Country Club, for a five-night-a-week, 4 to 6 pm slot in the VIP lounge of the Ritz-Carlton Millenia, Singapore, a gig that lasted for years and helped me get my foot in the door to booking other venues for that hotel. Upon reflection, those few meetings with Pat not only helped cure my carpal tunnel, but they helped to broaden my musical mind and ultimately my pocketbook as well! Thank you, Pat!

TAPE TRANSCRIPTION, CHAKO SECTION (c. 1991)

Editor's Introduction

This digitized videotape session begins with a half-hour monologue of Patrick speaking to his camcorder on the subject of the left hand, and continues with a 20-minute conversation between Pat and jazz guitarist Greg Chako. There are references to other people in the room observing, perhaps Tom Singman, a folk guitar player who came to Pat unable to play, and who has kindly put this digitized video recording and others at our disposal.

Transcription

PATRICK O'BRIEN: This is Greg Chako, formerly of the Berklee School in Boston, a heavy jazz player with a big complicated chord vocabulary with a lot of 2nds on the inside of chords. After a long hiatus in business, he started practicing real hard again this winter and was diagnosed with carpal tunnel syndrome in his left hand. Tell us the story.

GREG CHAKO: That's pretty much true. I played for just shy of 20 years, the last seven or eight or so were professional. I had a reputation for being able to play all night, much to the chagrin of some of my band members. I stopped playing about four to five years ago completely, didn't touch the guitar. Then last winter I embarked on an ambitious and somewhat excessive practice schedule. I played repetitively, slowed the metronome to 60 and gradually built back up. I was playing about four to five hours per day, and developed soreness in my hand. When I tried certain chords I would get a stabbing pain in my wrist. I thought it was normal, I thought it would pass.

Then a numbness developed in my thumb and fingers, there was a lot of pressure on my thumb. I wasn't worried for a couple days, but then I would wake up in the morning and could not feel my hand. My primary care physician and a neurologist diagnosed carpal tunnel syndrome. Fortunately I was able to get doctor appointments within weeks of noticing the symptoms. The neurologist suggested surgery would not be recommended, though he couldn't discount it in the future. He suggested stopping playing for a few months, prescribed anti-inflammatory medicine and vitamin B, and gave me a brace to wear at night so my wrist could not bend at an awkward angle.

A friend of my wife's suggested I call pianist Dorothy Taubman in New York, who was writing a book on musician hand injuries, so I phoned her. In the phone call she told me I was doing everything wrong, but I wondered what she knew about playing the guitar. She suggested calling Pat, who had had some success treating hand injury.

O'BRIEN: Ironically, we've only met once. Dr. Frank Wilson introduced us.

CHAKO: I took the neurologist's advice and quit playing for about three months. When I began playing again I took it a little easier. I did the exercises that Pat recommended and noticed immediate results. Within a period of less than two weeks I could actually see the adductor muscles start to develop. As simple as the exercises may seem, the fact is that I couldn't do them before. You get to see immediate results in trying these exercises.

I haven't exactly quit my job yet, but I am playing again on a fairly regular basis, almost daily. Certainly on the weekends I can put in about four to five hours without any major problems. I do encounter some soreness in the hands, but certainly minor compared to what I'd experienced before. Generally I find that a brief break from the instrument

will do the trick. I'll go make a cup of tea and then come back and play another few hours.

O'BRIEN: Basically what we did was that series of adductive exercises that I described on this tape already. We started doing small squeezing adductive exercises with nonadjacent fingers, worked down the neck gradually, then increased the size of them, coming back up the neck and doing larger intervals. We saw some things about the posture with the instrument, dropping the arm a little looser, and especially not curving the thumb.

CHAKO: I'm sure a lot of jazz players will play with their thumb. I don't do it as much as some I've seen, but I do find the need occasionally to bar with the thumb.

O'BRIEN: That's a fine thing to do as long as that's the only time you tighten your thumb, as long as it's not tight on the back of the neck.

CHAKO: You know, since I started practicing these exercises, I notice—whether I've done them or not that day—that that curved thumb will occur occasionally, two or three times in a passage. So I do try to correct the problem. There are certain kinds of chord passages that result in improper movements. So I try to adjust by making sure that my thumb is straight, not hooked at the tip. I recall in our last lesson together that the thumb can go any number of places, provided it remains straight.

O'BRIEN: There's another aspect of it, namely, that almost invariably when you tighten the thumb, you also oppose the thumb, rotating it around into the palm.

Try playing a couple of chords. We tried a couple large chords where you reconsidered the way of leverage of fingering them. That one's a good example.

CHAKO: That was an F chord, the voicing from the lower notes up was F a d e and c on strings 5,4, 3, 2, and 1. Now you suggested that another way to approach this would be to barre all the way across with my first finger and move the thumb more in the middle of my hand so it's in the center of gravity rather than off to the side. Because what's happening here is that my little finger is bending outward, my index finger is bending out, and if I'm not careful my thumb will roll right as well.

O'BRIEN: At one point when you originally did that for me, there was a split between the 2nd and 3rd. You were trying to clear the 2nd string and barre these two, was it F a d e, and you had kind of turned that finger around to try to get it clear of the other string. As you did it now, these two fingers are adducted and even 4 is not nearly as far out as it once was. It's basically still the same chord, it just has less tension inside.

CHAKO: It's a matter of awareness. Once you're aware of the adductive muscles and bringing the knuckles closer together, you can really make a difference. Now I find I can stop myself while I'm playing it and see if I can correct the problem.

O'BRIEN: You have to keep from going over the red line. You can do the wrong thing some of the time, but not all of the time.

CHAKO: The hardest thing in jazz passages is if you are doing a combination of chords and single notes that require a finger to stretch out only for a moment. Basically, if you find yourself in a bad position, the correction, the adductive motion in and of itself, is enough to compensate for some of the strain. Is that all it takes?

O'BRIEN: All you have to do is eliminate a certain amount of strain. With the thumb it's a question of not doing a stressful thing and leaving the stress there, doing it when you don't need the strain. Sometimes you have to do one horrendous thing for a chord, so you do it and then let go. You may be able to do one horrendous thing as long as you're not doing two or three others at the same time. One finger may have to be hooked at a very weird angle, but if you're drawing your first finger back and also splitting these two others at the same time, it's a deadly combination. It's not a situation where you have to do everything perfectly, you just have to do a smaller number of things with a little less stress.

CHAKO: I was hoping to get enough information out of one or two lessons to be able to work on my own.

O'BRIEN: Basically you did.

CHAKO: I'm at the point now where I certainly haven't yet mastered the latter part of the exercises.

O'BRIEN: You've been doing half steps with adduction?

CHAKO: I've been doing whole tones with adduction and also actually playing a whole tone. Which is actually quite complicated because when one finger goes up, the little finger will go out into a bad position. It's hard to lift one finger up, put it down again, and retain the proper position with the little finger.

O'BRIEN: There's a moment where you learn to squeeze these two fingers and adduct them. But if you let go of the 2nd, your 4th finger feels like it's going to fall. It's hard to learn to hold that in while you let go of the other, traveling across the strings holding them straight up. They are very much habitually used to going out, collectively in a pair. But as you start to go across the strings, they will wander a little.

CHAKO: Once you start moving, it becomes a little bit more difficult. I think the way around that is to start with the simplest thing. Obviously the 2nd and 4th are more difficult than the 1st and 3rd. You get that simpler thing mastered first.

O'BRIEN: Some people have to go in a different order. For instance, I will have them squeeze, and then have them actually play just one finger, raising and lowering it, very slowly, or have them do slurs with a small, half-step interval, before they can get the whole tones. You can find different ways of learning it.

For some people, when they first try to cross the strings, I ask them to slur instead of trying to cross the strings, and gradually to move it across the string without picking it up in the air. Just to try to roll across to the next string and get the feeling that there is some continuity. So I'm actually never leaving the strings, I'm always in touch with the strings and the fingerboard and rolling across. The sensory information I get as to what part of the fingertip seems to be touching the fingerboard or string is useful.

Another way of thinking about trying to correct the fingers is something I call the "macho appeal." When you're trying to ask people to do this, you try to give it a life-giving image of positive, good balance and so on. If they can't get it from that, you can sometimes look at the calluses on their fingers and say, well, you've got a hard callus here but it's soft there. I want you to build up those soft places, toughen and harden the inside edges of those fingers. Immediately this would appeal to an American.

Another point that I make to players of classic guitar is that if you land on the center of your fingertip this way, you can then pluck a slur

with a broad surface on the front of your finger. And you get a different sound than you would if you hook on the edge of the finger with the slur. Especially in the treble, this kind of slur sounds very angry [he demonstrates a harsh, metallic slur in the high register], and this one sounds mellower and fuller [he demonstrates a softer, sweeter sound on the same tone].

There are other benefits to it, and if you can appeal to someone's wanting something as crass as to build up the callus on the soft side of the finger or as aesthetic as trying to pluck a better tone on the slurs, you can use some trick of memory that will enable them to do that.

CHAKO: I came here the first time with some reservations, and want to emphasize from someone who had perhaps not suffered as much as you—and thank God I wasn't performing professionally at the time and losing my source of income for three months—I want to thank you personally and with complete honesty, that as simple and insignificant as these exercises seem, their effectiveness in my opinion is unequivocal.

O'BRIEN: The point about that is that there are a couple guys on the tape who have right-hand problems, and those are cosmically difficult, because they are a different order of problem. The left-hand problems actually are comparatively simpler to work on. Ironically, I think some of the left-hand people have spent more agony and more time and more money trying to correct the problem.

CHAKO: Are they jazz players?

O'BRIEN: They are fingerpickers, banjo pickers. But a jazz guy who has a left-hand problem, he's playing with a pick and has had this surgery. He has sold all of his archtop guitars, changed to the lightest action, made every other sensible move you could make. This is just the one thing he never tried, yet it would have been the easiest, most non-invasive way to deal with it. You're still going to continue to play your big, lovely Epiphone archtop guitar.

CHAKO: That's true, I'm going to move to a heavier gauge string now [OB guffaws], I'm going to use an acoustic string now electrically. I can't emphasize enough how important it is to do the exercises, to be aware of what Pat is talking about concerning thumb position and adductive movement of the fingers, keeping the knuckles together. Because I think you can do quite well on your own if you know what to look for.

O'BRIEN: That's what I was saying earlier with Tom [Singman]. If you get someone who's learning an instrument—such as in music school—if you give them some very basic information about what the hand can do and what it can't do, they can use that knowledge to make their own choices. It's very powerful information even if you only know the most basic points.¹

¹ See Patrick O'Brien, "Monologue on the Left Hand," *JLSA* XLVIII (2015): 9ff., for a transcription of Patrick's videotaped description of his adduction exercises. See also the tablatures of these exercises in *JLSA* XLVII (2014): exercises 1-4, in the article "Lessons with Patrick O'Brien."