

#### Interview with Dr. Jaume Rosset i Llobet

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Several years have passed from the last article that was dealing with health problems of musicians. Here we bring to you the interview with Dr. Jaume Rosset i Llobet, one of the leading European experts in performing arts medicine.

Also, in addition to the interview, thanks to the Institut de FisiologiaiMedicina de l'Art and their Science and Art Foundation, we bring a list of advices and exercises for prevention from injuries or simply maintaining good physical condition and optimal results achieving in music performance. The advices should be useful to everyone: active musicians, teachers and students of all levels. Most of musicians unfortunately don't spend enough of their time and energy maintaining a good level of their psychophysical hygiene, which often results in different health issues.

I don't know a single musician that hasn't confronted at least one music-related health issue during their careers. At the same time, I got to know a number of musicians that cannot solve their health issues because of lack of information or simply they don't know whom to contact to receive a proper treatment.

I sincerely hope that the following text would be a helpful source of information, and also that would serve as a guidance for improving good psycho-physical condition - very important element in our goal in reaching every musicians' dream - flawless and joyful performance.

#### Please introduce your Institut?

The Institut de Fisiologia I Medicina de l'Art-Terrassa (Barcelona) is a private center, created in 1999 as the continuation of the first public performing arts medicine unit in Spain, in Manresa General Hospital, till 1991.

The Institut has a team of physicians and therapists, some of them working full time in the center and some other only as collaborators, with large expertise in the care of performing artists (musicians, dancers, artists, acrobats...).

Through its own nonprofit foundation (Fundació Ciència i Art), the Institute also does scientific research on performing arts medicine, publish divulging material (books, posters, videos...), and organize and participate in educational projects in this field.

The Institute is located in Terrassa, close to Barcelona, and in its dependencies has all needed resources (musical instruments, medical devices specially created to diagnose and treat performing artists, postural work offices, etc.) to diagnose and treat most of the problems that use to affect these artists.

## Where do musicians you treat come from?

Many musicians that we see in our clinic come from abroad. Although we see many musicians from the closest countries (Italy, Portugal, France, etc.) we also see people coming from

America, Japan, Russia, Australia, or even, New Zealand.

#### Why have you chosen medicine of art? What is your connection with music - have you ever played any instrument?

When I was young I studied piano and I have my first job playing different instruments (electric guitar and traditional double reed instruments) in popular music groups. When I finished my specialization on orthopedic surgery and also sports medicine (sports medicine was a very new branch of medicine and considered on that time an estrange specialization) I begin to work as a physician and surgeon in a General Hospital and in and sport high performance center.

In the Hospital everybody knew my connections with music (my wife is also a musician) and considered me a "different" physician due to my work with elite sportsmen.

This is why when an injured musician arrived at the Hospital he was immediately sent to my medical office.

Very soon I realized that performing artists need a very specialized care and I did not have enough knowledge at that moment to do it properly. So I organized a team of different physicians and therapists in the hospital, we look for medical papers and books about this subject and, when we saw that there was very few documentation on this field, we begun our own research projects and established cooperation with other centers.

After a few years, we found the first performing arts medicine in Spain and, some time later, we decide to work, full time, trying to help injured performing artists.

#### In what stage today is medicine of art? And how do you see it developing in the future? Could you compare it to medicine of sports?

There is an up growing interest in this field and some health professionals, mainly physiotherapists, are joining the performing arts medicine community in the world. But Performing arts medicine is a specialty that is still not official (you cannot learn it in the University). So it is difficult for doctors and physiotherapists to properly be trained. Musicians, dancers and acrobats need to be cured from their injuries but nothing than 100% recovery will be considered satisfactory by them as happens with elite sportsmen. How can you help a performing artist to recover 100% if you not specifically trained understand what playing a musical instrument is and which are the specific injuries of this collective?

You reach a point when, after a long period of learning in the university and in the hospital, you feel confident with your knowledge and being able to help patients, then you confront a musician and you feel that you do not now enough again. So you need to be autodidact, constantly look for scientific papers, books, conferences, sharing information with colleagues, do research.... This is a stressful situation that not everybody is ready to confront.

Also, you usually need to expend more time to understand what are the causes of musician's injuries than what you need for other kind of patients and musician's injuries are more difficult to diagnose.

Even the financial side of this work is worth mentioning since one earns more

money working as an orthopedic surgeon or a sports medicine specialist than as an arts medicine specialist.

In front of this perspective you can imagine that just a few amount of health professionals decide to work in this field and if they do so they normally leave this way after a few time.

This is why performing arts medicine is still a very unknown specialty and there are very few centers in the world where they have enough expertise, knowledge, and specific tools to diagnose and treat artists.

# What are, in your experience, the most common health problems with performing artists (any musician, and then specially guitarists)?

As playing a musical instrument needs lots of movement repetitions the most common injuries in musicians, also in guitarists, are those who affect hand tendons (for instance trigger finger). But, as instrument are held and played in not completely balanced and relaxed postures, there are also many problems due to muscular tension and imbalances, mainly at the cervical area.

## Could you tell our readers in short words what Focal Dystonia is?

Playing a musical instrument at a high level require the nervous system to extremely reorganize himself, due to training. In some musicians, this reorganization is effective but not able to adapt to environmental or internal changes. So, if these musicians are subjected to a situation in which the nervous system cannot properly adapt this may result in а breakdown. The neurological programs reorganize themselves trying to maintain performance results but, in many cases, the

new brain organization is not effective. For the musicians it seams that he cannot control and properly do those things that he had mastered in the past and where easy to do and play for him till that moment. They can feel loose of movement or speed control and accuracy in the execution is often compromised. Uncontrolled tension and movement rigidity can also be present.

The musician usually tries to improve this problem with more practice but this does not improve the situation, even it can worsen it.

# And could you explain a bit more what is reorganization of nervous system and why is it caused by practicing?

The nervous system is constantly changing. The brain is constantly adapting to the environment (inner or outer) and, as the environment (inner or outer) is constantly changing, our brain is constantly organizing and reorganizing itself to maintain functionality.

If we want him to change in a proper direction (for instance to learn to do an arpeggio) then we need to train (to promote changes in a specific way to produce stable and functional changes in our brain). This is a new organization of the nervous system.

If the brain changes (in a desired or undesired way) from one brain response to another, than we are talking about reorganization (is organized in a way and we promote changes for a new organization).

You have developed really successful treatment for FD (the interviewer successfully underwent the treatment and is recovered). What are the

## characteristics of that particular treatment and how was it developed?

Musician's dystonia has a very particular characteristic. This is not always true in every musician but many of them only have dystonia when they play the instrument. If they imitate the same movement out of the instrument there is no dystonia.

Victor Candia, a classical guitarist and also neuropsychologist who developed dystonia in his left hand, noticed and analyzed this feature. His idea was: if I can make think my brain that I'm not playing guitar when I'm in fact playing it, perhaps I can have the opportunity to rebuild my affected movements. This is why he used splints to introduce changes in hand configuration while doing exercises on the guitar. This was effective but has a problem: after some time (perhaps days or weeks) the brain cached the trick and the exercises become ineffective. So he added a second

strategy: at the same time that new neurological pathways are created with the exercises done in the modified context, this new way is transferred to the normal context. This takes time and we choose the most effective exercises for each musician and each moment of the evolution is not easy. Experienced therapists can do it successfully and many musicians can take advantage of this approach.

During the last 15 years we have introduced new tools to this therapy, making it more effective, such as, for instance, trans cranial direct current stimulation, a non invasive and safety way of temporarily modify local brain activity and facilitate retraining.

What is the reason of a significant increase in the number of players affected by this particular health problem in recent years?



I'm not sure that there is a significant increase in the number of affected players. There is an increase of musicians that publicly recognize that they have dystonia and this create the perception that the problem is more prevalent. In my opinion dystonia has affected musicians from the moment that they push their bodies and brains to a limit point. That probably begun during the romantic period. From that moment, music making was not only a pleasure for the soul but also a competition, slavery for the body.

### What would the basic injury prevention strategy be, in your opinion?

Our body and mind has a great capability to adapt to work loads, to extreme conditions, to stress. But every one has a limit. And this limit can change from day to day. Every musician must develop the ability to hear his body and to understand if body and mind will properly adapt to the changes that are confronting. Then he must decide if loads must be new gradually incorporated or compensatory tools (stretching, pauses, relaxation techniques, physical exercise...) must be intensified. This is, in my opinion, the most effective way of injury prevention.

## And maybe, some more tips for avoiding injuries and leading more healthy life as a musician.

If one musician always does the same kind of routines, play exactly in the same moment of the day, during the same amount of time, in the same room and sitting in the same chair, he will probably develop a very effective adaptation to this specific situation. But, probably, he will have a certain break down when confronting new situations. This can lead to a decrease in performance, to stress, to injuries.

So, I think it is a good strategy to expose our body and mind to very different situations, making our system flexible, adaptable, less prone to break downs and injuries.

#### When should somebody contact a doctor?

It is difficult to set a universal advice about when somebody must contact a doctor. In general terms we can say that these situations should bring a musician to the doctor:

- There is the same kind of pain during more than two weeks
- If pain increases every day
- If there is constant loss of sensitivity in any part of the body
- If there is intermittent loss of sensitivity in any part of the body during more than two weeks
- If there is loss of strength in any part of the body
- If there is an inexplicable loss of dexterity in any part of the body or there are inexplicable mistakes or difficulties when playing certain parts of the repertoire or technical movements

Dr. Rosset i Llobet, thank you very much for pleasant and interesting conversation.