

## **MY CASE STUDY**

### **Case Study:**

#### **Cliffe Deacon**

#### **Internal Oblique Attachment Tear on the Right 11th Rib Cartilage**

#### **Past History:**

During the season of 2004/2005 I was playing a Supersport game in Bloemfontein. For the previous three months I was struggling with a very stiff lower back every day. But, because a bit of manipulation before every game gave me more than enough relief, I never made much of it. It was the second day of a four day game and I have bowled about three overs when suddenly I felt a very sharp pain in my left lower back. I tried to bowl another ball, but within the first three steps of my run- up I knew I was in trouble. I straight away went to get an MRI done, which revealed a bilateral lytic listhesis of L5/S1.

The next day I went to the Neuro surgeon, who tested me neurologically and found decreased reflexes and decreased sense of touch to both sharp/blunt and hot/cold. I was thus told that if no improvement showed after six months, that they would have to do a fusion. Thankfully everything returned to normal after six weeks and I was able to start with rehab, which took me six months.

After a serious rehab program lasting six months, I was able to return to playing cricket. I was bowling with a neoprene brace for my back for the first two seasons until I was able to wean myself from the brace and I was bowling without any support from the beginning of the 2007/2008 season.

Initially there weren't too many secondary injuries because of my back, but during the 2007/2008 season, I started having trouble with hamstring injuries, which I always knew I was going to have after reading up on the correlation of lower extremity injuries secondary to lower back problems. What I didn't bargain on, was that I would start to struggle with side-strains...

#### **Present History:**

For the last two seasons and during the 2009/2010 season, during the same period of the season, I have developed a serious side strain, which has kept me out of training and playing for at least a month. Reading up on it and taking a look at my spinal history, this is the reason for the occurrence and re-occurrence of the side strains...

- During our pre-season training I focus a lot on rotational exercises and core stability for my back.
- I historically have a very hyper mobile lumbar region, as well as a very hypo mobile thoracic region. Because of all the rotational training during pre-season focusing on thoracic mobility, it is not a problem during the first two-thirds of the season. But, by the time the last third of the season arrives my back becomes very stiff because of the work-loads during the season.
- This does not allow for complete rotation during bowling and throwing and because of over compensation my intercostals and abdominal obliques become fatigued and cause them to strain.
- A study down in Cape Town on cricket players showed that the internal obliques of bowlers are up to seven times stronger than those of normal people and that in comparison, the internal oblique of the non-dominant side is up to five times stronger than that of the dominant side.
- This also means that the non-dominant side is under a lot more stress than the opposite side due to the action of bowling.

Now, combining this, it is easy to see why and where the problem occurs...

During the last Supersport game of this season, I once again felt something going wrong in my side. I immediately stopped bowling and didn't think much of it. I straight away went for an MRI scan and it revealed a spot on the edge of my eleventh and twelfth rib that was very inflamed. It took about five days for us to be able to diagnose that it was the attachment of the stomach muscles to the ribs, instead of an intercostal muscle tear. This was because of pain in the general area...

So, rehab started!!!!

- For the first week I basically lived with an ice pack and TENS machine stuck to my side.
- I would ice myself for an hour every two and a half hours with the TENS machine going for the full hour.
- On day five I also went for platelet injections and we would re-assess in a week to see if a second injection was needed. I never had to do the second injection.
- During the second week, I started having physio sessions where we would do all the needed soft tissue mobilization, but we focused a lot on thoracic mobility.
- There was a definite level thoracically where the pain would refer to the injury site, which we would mobilize.
- In week three, while all of the above mentioned would continue, we slowly started rehab exercises where I would focus firstly on thoracic rotations and as pain allowed me we would add resistance as well as increase the range of motion of segmental rotation of the thoracic area.

The loading of the rotational forces was gradually increased as pain allowed us to the point where no pain was felt on optimal rotation against optimal force, which would then allow us to start with explosive exercises, combined with endurance exercises. This would mimic bowling as much as possible, without me actually bowling. I think because of the initial treatment straight after injury and the fact that I could recognise the injury very early, helped me to progress through all of this quite quickly, which meant that within fourteen days I was able to do all the exercises without any pain.

So, week four we started sport specific training...

- I was bowling eight overs from a standing position for the first two days.
- On day three I could add two overs from five paces, but cut down the amount of overs bowled from a standing position to five.
- Day four and five I did two overs standing as a warm-up, two overs from five paces and then two overs from nine paces.
- Day six was two overs from standing position, two overs from seven paces, one over from ten paces and one over from a full run-up.
- The over from a full run-up was done at eighty percent.
- Day seven and eight was two overs from eight paces, one from a full run-up at eighty percent and one from a full run-up at hundred percent.
- Day nine and ten I bowled three overs from a full run-up at match intensity.

As you can see, the tendency here is to make you bowl a lot of overs initially and as intensity increased, the load decreased until you can bowl at least three overs at match intensity. Then, what we did was I bowled two sessions of three overs a day and then two sessions of four overs a day. After this I was declared fit.



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The whole process took me just over four weeks, where I was told that I would only be fit after at least six weeks and the previous injury took seven weeks before I was declared fit. This can be because of the fact that the second one was a lot less severe, but I firmly believe it was because of the fact that our initial protocol this time around was a lot better...

