

“Doctor... I feel fine now, it doesn't hurt any more”

“Doctor ... ya estoy bien, no me duele”

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“Doctor... I feel fine now, it doesn't hurt any more”. How often do we hear that from our athletes? How often do our athletes return to the field prematurely after a sports injury without the necessary approval from their medical team? I suspect that many of you might be thinking to yourself “too often”. How do we make not only our athletes but also certain healthcare providers understand that the absence of pain does not necessarily mean that someone has fully recovered from a sports injury? There is plenty of literature to show that incomplete rehabilitation is, time and again, one of the main causes of recurring sports injuries.

Rehabilitation from sports injuries has evolved over recent decades through treatment methods and exercise protocols that have gradually changed as new scientific evidence emerges, but two things remain unchanged: a medical background check and a comprehensive physical examination. These will vary depending on the characteristics of the individual being treated; i.e. whether they are an adult or a child, a man or a woman, whether the injury is acute or chronic, traumatic or caused by overexertion. The preliminary evaluation should also identify both intrinsic risk factors (e.g. static and/or dynamic anatomical alignment issues, muscle contracture and/or imbalance, etc.) and extrinsic risk factors (training errors, unsuitable equipment or technique, etc.).

It should be stressed at this point that a proper knowledge of the sport in question is also essential for achieving effective rehabilitation of an athlete. By studying the biomechanics of movement, it is possible to identify muscle and joint groups that will be at greater risk of injury and those that may be indirectly affected as part of that continuous movement chain known as the kinetic chain. Knowledge and understanding of why the injuries associated with a particular sport occur enables an effective rehabilitation plan to be created that not only treats

painful tissues but also those that have been affected by replacing or compensating for the originally injured tissues. This is why we not only evaluate the shoulder that hurts but also the core and lower extremities that we know provide more than 50% of the force generated by a pitcher, looking for that “hidden” biomechanical deficit that affects movement in that shoulder. Only then can a suitable rehabilitation plan be created and effective recovery achieved. That knowledge is also the basis on which at-risk tissues can be trained in order to prevent injuries in a particular sport.

Despite the existence of numerous rehabilitation protocols, each athlete recovers at their own pace. For that reason, rehabilitation plans should be personalised and modified according to the needs of each case. A multidisciplinary team is fundamental and should include a physical therapist, an athletic therapist, an exercise physiologist and a sports nutritionist, among others, as well as the essential sports psychologist.

Rehabilitation from sports injuries has been split into stages and those stages are often associated with the stages of recovery in the affected tissue. Those stages of rehabilitation can be summarised as follows:

- Stage I: Acute or Recovery - this begins at diagnosis to work on the inflammatory phase in the tissue. It is an essential stage during which the body begins the recovery process and during which rehabilitation seeks symptomatic relief from the pain, to prevent excess oedema and to protect the injured area while also encouraging the movement arc. In some cases and depending on the severity of the injury, a light load can be used during early rehabilitation.
- Stage II: Readaptation - this coincides with the tissue repair stage in which the affected tissue is replaced by a collagen matrix through the proliferation of fibroblast cells. It is during this stage that rehabilitation is focused on recovery of the movement arc, strength and neuromuscular function, including proprioception. It includes

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alternative training sessions to prevent the loss of aerobic capacity. This is the stage at which we frequently “lose” our athletes due to the absence of pain.

- Stage III: Functional or Retraining Stage - this is associated with the tissue maturing or remodelling process, in which work continues on readaptation skills and the athlete is retrained on the movements and techniques required to deal with the specific demands of their sport.

The goal of any rehabilitation process is to achieve a safe return to the sport, whether competitive or recreational. Hence the importance of educating our athletes so they understand that rehabilitation is not only about eliminating the pain but also about restoring the movement arc, strength, neuromuscular function and, above all, the entire series of movements that are specific to the demands of their sport. This will not only enable an effective return to the sport but will also minimise the chances of a repeat injury. That decision should be taken following input from the multidisciplinary team while not only considering clinical and

biological factors of the athlete but also the psychological and social factors that might impact their involvement in the sport.

We have a responsibility to educate our athletes, their coaches and families on the important process of rehabilitation and the possible consequences of incomplete rehabilitation. Education is essential to that process!

Recommended bibliography

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