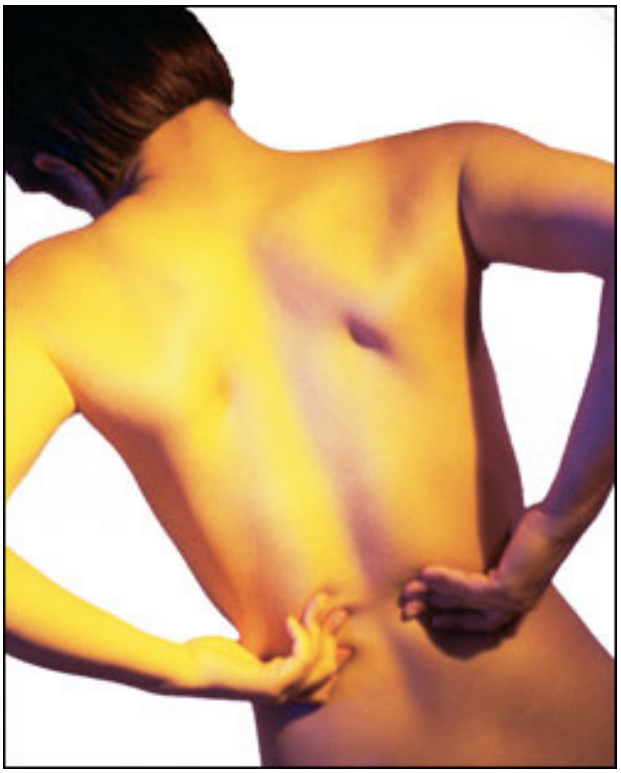
A Sports Medicine Approach For Chronic Low Back Pain By Howard P. Hogshead, M.D.



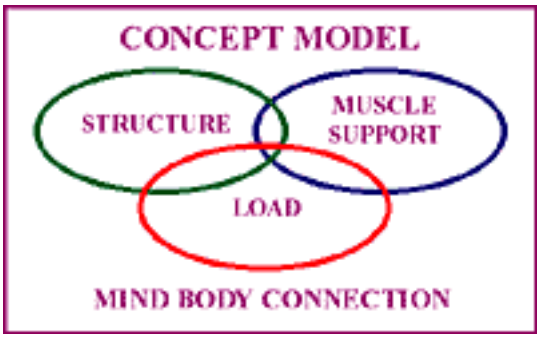
It's not exactly headline news that the sub-specialty of sports medicine has brought major improvements to the care of athletes. Many injuries are prevented by better conditioning and equipment. When injuries do occur, they are identified and treated more efficiently. Players are returned to the playing field safely and more rapidly.

Sports medicine doctors rely on rehabilitation as one of their most important tools. Not only must the injury be healed, but also the joint must regain full motion and the supporting muscles must be strong enough to carry the loads.

For example, an injury to the knee may involve a meniscus or ligaments. Surgery may be needed for repair of the structural damage to the knee. That surgery is only half the job, really, because the athlete then enters a rehabilitation program to restore full range of motion and develop full strength of the quadriceps and hamstring muscles. Not only must the muscles develop power, they must also work smoothly and must have the endurance to stay the course. By strengthening and conditioning the muscles, a structural deficit (e.g. damaged ligaments) can be compensated for. Only when the strength matches that of the healthy leg muscles is the athlete permitted to return to competition.

The very same rehabilitation methods work for chronic low back pain. Very few chronic back pain patients require surgery. The evaluation of a patient with chronic low back pain requires attention to three important elements.

First, the structural damages in the spine must be assessed, including the effect on flexibility, range of motion, and stability. This is relatively easy, as we have elegant tools for visualizing the vertebrae, discs, and nerves.



The second part of the back pain problem to be considered is the muscles which support this flexible tower of bones. In chronic back pain, the supporting muscles will nearly always be found to be weak, irritable, and prone to lock up in spasm. A carefully supervised program of exercises to strengthen the abdominal and spinal muscles is needed. The experienced therapist will start the program at a level which can be safely managed by the individual patient. "No pain — No gain" is definitely not what is needed here. Passive modality therapy such as heat, cold, massage, or electrical stimulation may feel good but it doesn't get the essential job done. Just as with the case of the injured knee, improving the muscle support system restores even the damaged and unstable spine to normal function. A regular maintenance program of exercises then must follow the rehabilitation program.

The final important factor that must be considered in the rehabilitation of chronic low back pain is the load factors to be carried by the spine. Load refers not only to the job requirements of lifting and carrying, but also to the weight of the individual patient. Being overweight places a constant additional load on the spine which it may not be built to carry, resulting in premature wear on the discs. Weight loss may be very beneficial in the long-term solution to the back pain problem.

The three factors — structure, muscle support, and load all interact so that none of them can be approached without considering the others. That's another way of saying that we don't just treat the X-rays. The relationship of the three factors can be visualized as shown by the three overlapping circles above. Strengthening the muscle support and or weight loss can move in a positive direction to compensate for damage to the structure of the spine. Clearly this is a long-term solution which may involve changes in life-style. This is the choice to be made if the player is motivated to get back in the game.