

## Determining the Ideal Location for Rehab Exercising

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In the process of helping patients regain spinal function after injury (or as part of care for a chronic condition), rehabilitative exercises are frequently recommended. But where is the best place to perform exercises? Can patients do them at home, or must they go to a special facility? What are the concerns regarding home versus institutional exercising?

### Pros and Cons

Independent exercising (as can be done at home or in a gym) has a number of real benefits - but also some drawbacks. And while exercising under supervision (such as at the doctor's office or in a rehab facility) can bring about tremendous gains, there is also a price to be paid. In fact, the pros and cons to both approaches break down into four main areas: willingness to comply; level of complexity; doctor/patient communication; and cost. When we understand and master these four areas, doctors of chiropractic are well-positioned to provide the best care for patients with myriad musculoskeletal problems.

### Willingness to Comply

To get any benefit at all from exercise recommendations, patients have to actually do the exercises. Getting patients to follow the doctor's recommendations is a challenge in all forms of patient care, but this is especially true when trying to get patients to do stretching and strengthening exercises to improve the function of the musculoskeletal system. There is no doubt that the only way to ensure complete compliance with exercise recommendations is to have a patient performing the exercises while someone knowledgeable is watching and recording what is being accomplished.

One study found that patients with low back pain were much more likely to come to the gym to perform rehab exercises when there was a trainer assigned to accompany them during their sessions.<sup>1</sup> And even a well-designed rehab program that provided home-exercise equipment for free achieved only minimal results, since most patients didn't do their exercises.<sup>2</sup> Because of the poor compliance, the researchers had to conclude, "Unsupervised home exercise programs may benefit few patients."

### Level of Complexity

It is easy to overwhelm patients with exercise instructions. In an institution setting, this is easily handled by repeatedly reviewing the exercises and correcting the errors made by each patient. Under supervision, patients can tolerate more complicated exercise routines and learn to properly use complex rehab equipment. However, when given home exercises, most patients have a difficult time remembering and correctly performing their exercises, unless the number of exercises is kept low. Investigators found that patients over the age of 65 were unable to perform more than two exercises

properly when tested a week later.<sup>3</sup> Multiple sets, weekly schedules, and exercises for several body regions can all add to the complexity of exercise recommendations, making it hard for many patients to accomplish on their own.

#### Doctor/Patient Communication

A clear advantage of supervised exercising is the opportunity for multiple channels of communication. Verbal instructions are insufficient to get patients to exercise; at a minimum, written directions with diagrams must also be provided.<sup>4</sup> Better still are good visuals: photographs or even videos, of the exercises being done. Best of all, when the patients can see the doctor or a therapist actually perform the exercises, they are encouraged to ask questions.

#### Cost

If resources were unlimited, everyone could be assigned to institution-based supervised exercising. However, in the real world, the cost of the doctor's or therapist's time - and the dedicated additional space and equipment - make supervised exercising quite expensive. Add the costs of administration, management and other overhead, and it's easy to see why the fees for exercising in a facility under someone's supervision mount up rapidly. Whether the patient or a third party is paying, both are interested in keeping costs down.

#### A Working Compromise

There is a compromise solution: a home-based program that also has a few (or several) supervised exercise sessions in the office. This approach works with the vast majority of our patients, and it can obtain most of the benefits of an institutional exercise program, while still keeping costs quite reasonable.

Frequent monitoring. Since we see patients frequently (at least initially), doctors of chiropractic have the opportunity to monitor patients closely. This enables us to establish inexpensive, home-based programs, yet also review compliance and performance regularly. Patients on a home exercise program should be asked weekly to demonstrate their exercises. Knowing that the doctor will be checking up on them helps motivate patients to exercise regularly.

Graduated progression. Initially, patients should be shown only a few exercises, which are to be performed daily. As consistency is successfully established, additional or more complex exercises (with increased resistance) can be implemented. Keeping the hurdles low in the beginning avoids discouragement and disappointment. It's also a good way to minimize the sense of effort, pain and soreness.

Simple instructions. Avoid multiple sets and other complex exercise methods - at least in the beginning. For most patients (and especially for those who aren't used to exercising) a single set of 10-12 repetitions of each exercise has been found to be effective.<sup>5</sup> Single-set programs are also less time-consuming, which generally translates into improved compliance. It's also a good idea to have patients perform the exercises every day. This establishes regularity and avoids the complexity of a weekly schedule.

Use an exercise log. Have your rehab patients fill out an exercise diary and bring it in with each visit.

This tends to motivate them to do the exercises, since they will want to show you their exercise logs in order to get some praise and recognition. By having to record in writing each home exercise session, patients realize this is a necessary part of their treatment.

Guided practice. Make sure each patient knows which exercises to do, and how to do them correctly. This is best achieved by demonstrating the exercise, watching the patient do the exercise, and then correcting the inevitable mistakes. In most cases, when patients need to strengthen and retrain, they will not be able to do the exercises properly, and will substitute, improvise or cheat. Exercises performed incorrectly not only won't contribute to progress - they may even be detrimental.

### Home Advantage

A cost-effective rehab program is achievable with a monitored home exercise program. While a few patients may need to be enrolled in an institutional program, they are generally the exception, not the rule. Examples may be patients with complex injuries; severe cardiovascular disease or other complicating morbidities; or a history of noncompliance with home exercise. In most cases, a closely monitored home exercise program enables the doctor of chiropractic to provide cost-efficient, effective rehabilitative care. In this way, the doctor and patient can work together to improve spinal function, decrease current symptoms, and prevent persisting disability.

### References

1. Reilly K, Lovejoy B, et al. Differences between a supervised and independent strength and conditioning program with chronic low back syndromes. *J Occup Med* 1989;31:547-550.
2. Daltroy LH, Robb-Nicholson C, Iverson MD, et al. Effectiveness of minimally supervised home aerobic training in patients with systemic rheumatic disease. *Br J Rheumatol* 1995;34:1064-1069.
3. Henry KD, Rosemond C, Eckert LB. Effect of number of home exercises on compliance and performance in adults over 65 years of age. *Phys Ther* 1999;79:270-277.
4. Schneiders AG, Zusman M, Singer KP. Exercise therapy compliance in acute low back pain patients. *Man Therap* 1998;3:147-152.
5. Feigenbaum MS, Pollock ML. Prescription of resistance training for health and disease. *Med Sci Sports Exer* 1999;31:38-45.

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