

# Specific Rehab

By Michael Yessis, PhD

How often do you experience a nagging ache or pain in a specific bodypart? If you are like the majority of bodybuilders and other athletes, this happens very often. It doesn't mean that you have a serious injury; it's just that you have a persistent problem. For example, your shoulder hurts when you raise your arm overhead, your back hurts only when doing squats, your knee hurts when running, your elbow hurts when doing French presses, and so on. Typically, we chalk up these problems to too much work the day before, overstretching in a warm-up, not warming up enough, accidentally doing a movement incorrectly, etc. But these excuses usually cover up something that is not functioning most efficiently.

If you go to a doctor, he will probably tell you to put some ice on it (or heat if it has been a few days), not do the activity and get some rest. Possibly he'll give you some medication. He'll usually tell you that the problem

will go away, and many times it does.

However, all too often the same problem keeps coming back, preventing you from doing high-quality workouts. Such problems are very difficult to diagnose.

## TARGETING THE PROBLEM

For example, you have a pain in the upper back and your arm hurts every time you push down. This may be diagnosed as a muscle problem, but which one? If you say, for example, the latissimus dorsi, you may still be unsure of the exact location. The reason for this is that if you closely examine this muscle anatomically, you will see that it's quite large, covering an area from the upper back and side of the body all the way down to the pelvis and lower spine. Because of this, you must know exactly where the problem is, but since the muscle also has multiple actions, it is even difficult to isolate exactly which portion of the muscle is involved in the problem.

A similar situation exists with other multiple action muscles. For example, if the problem is in the pecs, it could be in the upper (clavicular) or lower (sternal) portion. Some doctors even differentiate this muscle into the upper, middle and lower portions.

Even more complex is the trapezius muscle in your middle back. This muscle has four parts and is involved in head extension, shoulder elevation, scapula adduction, upward rotation of the scapula, and depression of the scapula. In addition, the rhomboids, which lie directly under the trapezius, perform some of the same actions and could just as easily be the problem in mid-back.

## KINESIOLOGY

However, there is a way of quickly identifying exactly which muscle or portion of a muscle is involved. This technique is used by applied kinesiologists. Kinesiology is an umbrella term for the study of muscles and movement. But it has a few spe-

cializations under it. For example, I specialize in identification of the muscles and their actions in specific exercises. I can also identify which muscle may be involved in a pain or injury problem but not with the precision of a clinical kinesiologist.

Clinical kinesiologists may also be known as applied kinesiologists, but applied kinesiologists cannot be called clinical kinesiologists. They both use the same type of testing, but the tests and the degree of accuracy are much greater with the clinical kinesiologists. And it should be noted that there are only about 150 of them in the United States.

Researchers in clinical kinesiology have developed specific tests for each major skeletal and axial muscle of the body. Using these tests, each muscle can be isolated by specific positioning of the body and applying of force along a specific vector. This can be illustrated by using the latissimus dorsi muscle

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This article was taken from Muscle & Fitness magazine. Dr. Larsen has acquired thousands of hours of training in Applied Kinesiology and Clinical Kinesiology.

**Brant A. Larsen, D.C.**

[www.dr.larsen.com](http://www.dr.larsen.com)

## SPORTS MEDICINE

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of the back, which is divided into three divisions: the thoracic, lumbar and iliac.

### TESTING VARIATIONS

To test the lat, the arm is held along the side of the body with the elbow straight. The thoracic division is tested by placing the arm in a position where the thumb is against the thigh before beginning the test of pulling the arm away from the side. The lumbar division is tested similarly, except that the index finger is against the thigh. The iliac division is tested by placing the back of the hand against the thigh.

Thus the tests for each division vary only in the amount of rotation of the arm. But these slight variations of the test position are critical to an accurate analysis. The application of clinical kinesiology muscle analysis and what the athlete experiences are unique. When a weak muscle is located, there is a feeling that there is "nobody home." When a muscle is properly isolated, the person being tested has the feeling that he has no ability to resist the force of the test, which can be as slight as the pressing finger of the kinesiologist.

Another example is the triceps, which has three divisions: the long head, which crosses the shoulder joint, and the medial and lateral heads, which arise from the upper arm and join the long head to make a common attachment below the elbow. Since all three perform the action of straightening the unit. In clinical kinesiology, however, there are three separate and specific tests for these muscle divisions. With

weakness or pain in the upper arm, one or more divisions may have problems.

Through the special testing the problem is isolated. Then comes the task of eliminating the problem. This is done by locating the specific set of reflex points and related vertebral (spinal) levels and then treating them. In almost all cases this is all that is needed to "turn the muscle back on." When this happens your original problem is gone.

One of the advantages of this approach is that once a muscle has been turned back on, the athlete can feel confident that the muscle is strong and will stay that way unless reinjured. Another advantage is that upon initial examination of the area of complaint, the extent of the problem can be determined by the number of muscle divisions that are not functioning.

### CLINICAL KINESIOLOGY

I was first made aware of clinical kinesiology, as personified by Dr. Andrew Specht, by several athletes who follow my training system. They kept telling me how he would easily and quickly take care of all their injuries. In fact, it got to the point where one athlete would go to Specht once a week or once every two weeks for a "tune-up."

I went to Specht with a nagging knee problem. To my amazement, he found that one muscle was not working. It was the articularis genu muscle, which I had never heard of, nor did I know its function. (It moves the bursa sac so that it can properly lubricate the joint and allow the knee to function properly.) When I left his office I thought I had a new knee.

One disadvantage of clinical kinesiology, if it can even be considered a disadvantage, is that it takes some time to isolate and treat the specific reflexes for each muscle. Therefore, an appointment with the clinical kinesiologist is usually longer than one for other practitioners who spend less time per visit with the athlete. Also, up to this time these techniques are not used by most doctors. They're primarily used by chiropractors who have extensive postgraduate study in this specialty.

If you are debating whether clinical kinesiology can be helpful to you, ask yourself if you can perform an exercise in strict form without twisting out of position to achieve the movement desired. In this situation you are probably attempting to recruit other muscles to perform the job of the injured muscle(s). This eventually leads to more injury, as the recruited muscles are less capable of performing the movement and place excessive stress on the joints.

If these ailments fit you or if you're nagged by persistent joint or muscular problems, then a clinical kinesiologist may be the answer to your problem. However, I recommend that you first check to see what methods he uses and if he has the proper credentials. For more information in this area, contact Dr. Andrew Specht, Clinical Kinesiologist. □

## BIO: Dr. Michael Yessis

Dr. Michael Yessis received his Ph.D. from the University of Southern California and his B.S. and M.S. from City University of New York. He is president of Sports Training, Inc., a diverse sports and fitness company. Dr. Yessis is also Professor Emeritus at California State University, Fullerton, where he is a multi-sports specialist in biomechanics (technique analysis) and sports conditioning and training.

In his work, Dr. Yessis has developed many unique specialized strength and speed-strength (explosive) training programs. He has served as training and technique consultant to several Olympic and professional sports teams, including the L.A. Rams and L.A. Raiders football clubs, Natadore Diving Team, and the U.S. Men's Volleyball Team. He has also successfully trained many athletes in different sports.

Dr. Yessis has written more than 2,000 articles on fitness and sports training that have appeared in magazines such as Muscle and Fitness, Shape, Scholastic Coach, Fitness Management, and the National Strength and Conditioning Association Journal. He has also written the following books: Handball, The Secrets of Soviet Sports Fitness and Training, Plyometric Training: Achieving Explosive Power in Sports, Kinesiology of Exercise, Body Shaping and Explosive Golf. He has completed four videos, entitled Exercise Mastery, Developing a Quarterback's Arm and Strength, Specialized Strength and Explosive Exercises for Baseball and Specialized Strength and Explosive Exercises for Softball.