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By Suzy Devers

**Ahhhhh Massage.** It's one of life's greatest pleasures. But it suffers from a bit of an identity crisis. That's because so many people think of it as a luxury just for pampered touchy-feely types (pun intended). But the fact is, massage offers a whole range of therapeutic benefits, especially if you're trying to develop your physique or enhance your performance!

## Can It Really Help Enhance

Massage has been used successfully throughout the ages, especially by athletes. In fact, according to the ancient Greeks, "Massage can never be appreciated by the common man," referring to the "nonathlete," of course.<sup>8</sup> The athlete was revered in the Greek culture because he was someone who pushed himself to the limits for his sport. He was willing to endure an incredible amount of pain to reach his goals. Sound familiar?

## Performance and Physique

Roman gladiators, athletes in their own right, also relied on massage to soothe their spirits and help their war-torn muscles heal faster.<sup>1</sup> Nothing frivolous here. And massage was used by Swedish cavalry officers to relieve stiffness and muscle aches from spending torturously long hours on horses.<sup>5</sup>

## Development?

Massage also played a significant role immediately following World War I in the rehabilitation of American soldiers. It was used again on an even larger scale during World War II, but its popularity plummeted after the war when electrical contraptions became popular in physical therapy.<sup>2</sup>

For decades, massage has been an integral part of the training programs for most great athletes from a number of European countries. In 1972, Lasse Viren credited daily deep-friction massage with helping him win gold medals in the 5,000-meter and 10,000-meter runs at the Olympics, earning him the nickname of the Flying Finn.<sup>1</sup>

## Massage Rediscovered...

Massage for the athlete didn't really come into its own in America until 1980 when Jack Meagher, a sports physical therapist, published *Sportsmassage*. In this groundbreaking book, Meagher stressed the importance of massage to all athletes and claimed that sports massage would give you "20% extra—extra performance, extra protection, extra time, per game, per season, per career."<sup>2</sup> One athlete Meagher was able to help was Jim Nance, the great Boston Patriots fullback. Nance sought Meagher's help because his legs would tighten up around the fourth quarter. At first, Nance was skeptical, but Meagher said, "I guarantee you will play the entire game with absolutely no tightening." Nance agreed to give it a try, and Meagher was true to his word. Nance's legs stayed loose throughout the entire game and were still loose two days later. So much for that old adage "no pain, no gain."

Okay, so massage helped a pro football player, but what can it do for an average weightlifter? Well, Meagher decided to test his theories on a young weightlifter. He gave his subject three strength tests on consecutive Fridays. Before the massage, the lifter's best bench press was 5 reps with 225 lbs and 1 rep with 120 lbs on a military press. **However**, after the massage, it was 8 reps with 225 lbs on bench and 2 reps with 130 lbs on military press! On the second trial after massage, during a two-hour workout, he added five pounds to each lift! Within 3 weeks, he was doing 4 reps with 235 lbs on the bench press and increased 10 lbs on the military press!

Of course, this was only one small experiment, but results like these are beginning to earn massage respect in the athletic world. In fact, in 1996, it was officially included at the Atlanta Olympic games as part of the medical team's services for the first time.<sup>3</sup> During the games, massage therapists were recognized on a par with medical doctors, physical therapists, osteopaths, nurses, and athletic trainers.<sup>4</sup>

## Building Better Bodies Through Massage

To really appreciate the tremendous benefits of massage, it helps to take a closer look at weight-training exercise. As you likely know, if you want to grow, you have to continually put more and more stress on your muscles. This is known as the overload principle (or progressive overload).<sup>1</sup> Your training goal is to force your muscles to continually adapt to heavier weights or greater intensity. Effective training means overloading your muscles with a form of stress and then allowing them to recuperate.

Sounds simple enough. But we're talking about a fine line here. If you don't push your workout intensity enough, you won't grow. But if you push the intensity beyond your body's ability to recuperate, you get hammered with an injury. And even a small injury can con-

tribute to loss of performance in the long run. As Meagher observes, "The prominent cause of diminishing abilities in the healthy, athletic body, no matter what age, is the buildup of years of micro-trauma associated with maximum effort combined with the results of old, unresolved injuries."<sup>6</sup> This is where massage comes in.

## An Ounce of Prevention Never Felt So Good!

Massage may help prevent all sorts of traumas, like strains in muscle and connective tissue, spasms and pain that restrict movement, swelling and edema, and metabolic waste buildup that can slow recovery and cause muscle fatigue.<sup>10</sup> In other words, massage can help you stay healthy and flexible, so you can push your workout intensity safely.

Let's look at two hypothetical scenarios. In the first scenario, say you develop a muscle spasm, but you ignore it. Eventually the spasm will become inflamed. The fluid (edema) that accompanies the inflammation forms a kind of thick liquid (like a glue) that binds the muscle fibers into an adhesion. Now you've got a double whammy, fibers in spasm that are immobilized by edema. This condition prevents the free flow of blood, oxygen, and vital nutrients to the area. Without these healing substances, that muscle spasm isn't going away.<sup>3</sup> Pretty soon, it's hard for you to even move your arm, let alone lift weights.

The second scenario starts out like the first. You develop a muscle spasm. But unlike the first scenario, you immediately get a massage. The massage improves your circulation and promotes blood flow to the area being massaged. This allows oxygen and nutrients to rush to the site, so it can start repairing itself right away.<sup>5</sup> In this scenario, massage prevents the muscle spasm from becoming sore and inflamed. So you prevent trouble and stay flexible.

Let's also say the exertion of your workout produced a lot of metabolic debris. Instead of building up and making your muscles somewhat toxic, that debris is quickly flushed from your body by the massage. Massage has this amazing ability because it increases lymph drainage. Lymph is a clear fluid that flushes metabolic wastes out of your system.<sup>4</sup> Because lymph is circulated by the pull of gravity or by muscle contractions, massage gives it the "push" it needs to enter the bloodstream faster—up to 25% faster!<sup>9</sup> So you'll feel your best much sooner. Suddenly massage doesn't sound so frivolous!

## Recover Faster and Get Back to Your Workouts!

The two scenarios described above illustrate the dramatic preventative effects massage offers. But massage also helps you heal faster after an injury, so you can get back to your workouts sooner. That's because increasing lymph drainage and improving circulation also work to speed recovery.<sup>5</sup>

In a 1990 study conducted at the University of North Carolina, subjects were asked to perform leg extensions until they couldn't continue. One group received a ten-minute massage; the other rested for ten minutes. The researchers then compared pretest and post-test strength readings.

The group that simply rested showed a significant decrease in strength, while the massage group showed an increase. Another study undertaken in 1990 by McSwain showed that both exercise and massage were more effective than simply resting for recovery. But the effects of massage lasted far longer than exercise alone.<sup>2</sup>

## Improve Flexibility and Keep Growing!

Another important benefit of massage to you, as a bodybuilder, is increased flexibility. Let's face it, intense exercise can really put a lot of stress on your body. And in cases of severe stress, connective tissue can actually thicken and become more rigid. This thickening starts at the site of an injury. But because connective tissue is interconnected, a trauma in one area can result in a trauma in a remote area as well.<sup>7</sup> Once these injuries start piling up, it gets pretty hard to apply that overload principle we mentioned earlier. The fact is, if you want to keep pushing the intensity of your workouts, which you need to do to keep growing, flexibility is key.

Massage helps you stay flexible because pressure, stretching, and friction all raise the temperature of your tissues. Even this slight increase in temperature generates enough energy to promote a more fluid substance within the tissue. This reduces rigidity, facilitates waste elimination, and promotes the transport of nutrients into the muscles, so you can move without pain.<sup>2</sup>

## Promote Healthy Scar Tissue

Massage can also promote strong, supple scar tissue if you do injure yourself. That's because as scar tissue develops, collagen fibers form a weave to repair tissue damage. Initially, this weave or patch is arranged randomly. Trouble is, later it can rearrange itself along the pull in the muscle, so instead of a parallel scar, you've got a transverse scar that pulls on your muscle, restricting movement. But deep-friction massage (I'll explain this in a bit) can help the scar tissue arrange itself in a more parallel fashion, cutting down on those limiting transverse connections. It also breaks down adhesions and fibrous crosslinks that can restrict range of motion.<sup>2</sup>

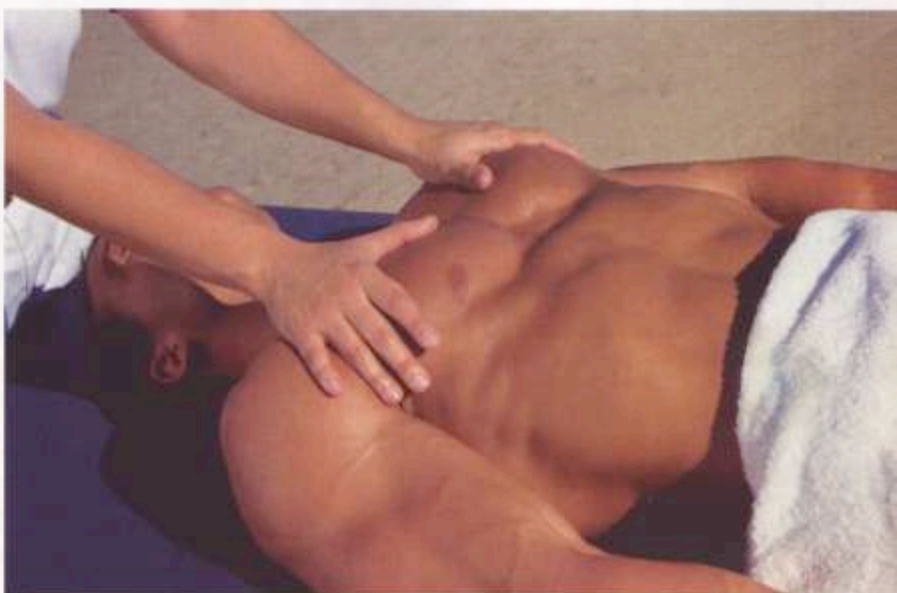
## Increase Mental Alertness and Energy

Fast surface massage, such as kneading (which I'll also explain in a few) helps boost mental alertness necessary for competition or for a tough workout. According to a study conducted at the Touch Research Institute at the University of Miami, massage boosted mental alertness in office workers who received 20 minutes of chair massage 3 times a week. Study participants showed brain waves consistent with enhanced alertness. They also reported being less fatigued, and they demonstrated improved cognitive skills.<sup>3</sup> It's as if stimulating the tactile nerve endings of the skin sends a wake-up call to your brain.

Massage also boosts energy levels by helping supply the muscles with enough oxygen and nutrients. When the body can't supply these key ingredients, muscle fatigue sets in. Muscles also become fatigued when lactic acid builds up. As we mentioned earlier, massage increases removal of cellular waste, like lactic acid. In addition to speeding recovery time, this boosts muscular energy.

## Release Beneficial Hormones

Studies show the caress of another person releases hormones that can speed healing, ease pain, and even clear your mind. This relatively new understanding of touch was born out over a decade ago when child psychologist Tiffany Field showed that if premature infants were massaged for 15 minutes 3 times a day, they gained weight 47% faster than their preemie counterparts given the standard intensive-care treatment. And it's not because the



preemies with the healthy weight gains were eating more. According to Field, now the director of Miami's Touch Research Institute, it's because they were processing food more efficiently. The babies who were massaged were also more alert, slept better, and scored higher on mental and motor tests.<sup>3</sup> Chances are pretty good massage is beneficial for adults too!

## How Often Is Enough?

So how often should you get a sports massage to experience all these wonderful benefits? According to Sally McJoynt, a certified sports massage therapist and the former director for the State of Colorado Sports Massage Team, that depends largely on your goals and the intensity and frequency of your workouts. For example, she sees a number of Olympic and elite athletes at her Boulder, Colorado, clinic, Performance Sports Massage, at least twice a week during peak training. And, she notes all athletes can benefit from a weekly sports massage to help maintain performance and prevent injury.

McJoynt stresses that everyone is different, so you need to let your stress load, work load, and pocketbook be your guides. But she suggests anyone who's serious

about their sport should consider a minimum of one massage every three weeks. She also suggests you get a massage after your hardest workout of the week for even better results.

## Sports Massage vs. Massage for "Everybody Else"

Hopefully, so far, you're beginning to see massage isn't just for those touchy-feely types, and it may be something you can incorporate into your program to help improve your physique-development gains (as well as making you feel a whole heck of a lot better). But there are different types of massage, and some may be better for athletes than others.

Sports massage, or athletic massage, uses many of the same techniques as other forms of massage, but it focuses heavily on injury prevention. It's also meant to help athletes break through plateaus, boost performance, and extend their careers.<sup>8</sup> Although sports massage incorporates the basic techniques of Swedish massage (the most common form of massage in America),<sup>5</sup> it focuses specifically on contracted muscle areas. *Massage Magazine* describes sports massage as Swedish massage with an attitude, not the kind of massage where you zone out and go to la-la land.<sup>4</sup> Another thing that sets sports massage apart from other forms of massage is it's typically performed at specific times with different goals in mind.<sup>6</sup> (Of course, you can benefit from a sports massage anytime.)

**Pre-event massage** is a warm-up massage that's fast-paced, stimulating, and superficial. The focus is on enhancing circulation.

**Inter-competition massage** is performed during breaks in the event. It's short and light and focuses on relaxing muscles that are being used or are about to be used.

**Post-event massage** or the warm-down massage is deeper and focuses on reducing muscle swelling and soreness, promoting relaxation, and reducing recuperation time.

## Tips and Techniques

If you're serious about incorporating sports massage into your training routine, you should look for a certified sports masseuse with a thorough understanding of anatomy and physiology.

However, there are some great basic massage strokes you and your partner can share at home. They're not meant to address specific injuries the way an actual sports massage would, but they will offer the benefits of relaxation as well as improved blood and lymph circulation. In other words, they're very therapeutic.

**Sliding**, also called "effleurage," involves sliding your whole hand, palm and fingers, across the skin with steady pressure. This technique is great for spreading oil over your partner's body and for helping relax surface muscles. Use long, gliding strokes 10 to 20 inches in length. And make sure your strokes are always gentle and reassuring. Use your palms for larger surfaces and your thumb and fingers for smaller areas. Set up a pace of about 15 sweeps per minute. Increase the pressure as you move towards the heart.<sup>2,9</sup>

**Kneading**, also called "petrissage," involves rhythmically squeezing, lifting, and releasing the muscle. This is typically done on groups of muscles, rather than on individual muscles. Use two-handed kneading for larger muscle groups like the quadriceps. Squeeze and lift with one hand, then with the other. Keep up a moderate tempo as you continue along the middle of the muscle, rather than near the tendons. Be sure to alternately loosen and tighten your grasp on the tissue. Limit strong kneading to five minutes and keep to well-padded areas like the buttocks and thighs.<sup>2,9</sup>



**Compression** is one of the major strokes used in sports massage. It's a simple technique performed either with the palms or the fingers. Here's a compression stroke using your palms: overlay one palm on top of the other; using your bodyweight, gently and repeatedly compress the tissue beneath with the heel of your hand. Movements involve a rhythmic straight up and down pumping action directed towards the bone. The idea is to compress the tissue and then reduce the pressure.<sup>2</sup>

**Friction** is one of the oldest massage techniques; it's even mentioned in ancient texts. It's often used to increase blood flow for a warming effect. Circular friction is done with one finger or with the same finger of both hands. Move your finger(s) in a circular direction but cover no more than one square inch. Apply enough pressure so your finger doesn't slide across the skin but rather the finger and the skin move together as a unit. Continuous rhythmical repetitions feel like a singular movement. If you use two fingers, draw little circles in opposite directions with each finger. Don't exceed ten minutes in any one area.<sup>2,9</sup>

**Skin Rolling** is great for tight areas like the back. It increases skin pliability and improves circulation. All you do is pick up the skin and gently pull it away from the muscles beneath it. To move along the skin, you can alternate hands or use two hands, moving sequentially across the skin. Before performing skin rolling, warm up the skin with a soft stroke. Also, keep in mind if skin circulation is poor, this method can be painful unless you're really gentle.<sup>2</sup>

**Percussion** encompasses a variety of techniques that use fast, rhythmic movements with the hands or fingers. It's great for increasing circulation. Usually several techniques are intermixed. Here are two popular strokes: **Slapping**—use the palm or pads of your fingers to lightly slap the area. **Cupping**—press the thumb and forefingers together and flex your hand, so it's slightly concave (like a shallow cup). Strike with the outer rim of the cup, including the heel of the hand, but don't use the center of your palm.<sup>2</sup>

## Conclusion

Massage isn't just for the touchy-feely types. In fact, athletes may be the only people who can truly appreciate this great pleasure. So the next time you're feeling guilty about wanting a nice back rub, just remember, you may be enhancing your performance while just lying there!



If you'd like to learn more about sports massage, a good place to start is the American Massage Therapy Association. They have a listing of close to 500 massage therapists who have passed the Sports Massage Certification Examination. Ask for the name of a certified sports masseuse in your area. Their address is: American Massage Therapy Association, 820 Davis Street, Suite 100, Evanston, IL 60201-4444, phone: 847-864-0123, and fax: 847-864-1178.

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