
Relax Into Stretch

Instant Flexibility through
Mastering Muscle Tension

By Pavel Tsatsouline, Master of Sports

I have trained Soviet commandos to DO SPLITS IN THREE TO SIX MONTHS—whether they liked it, or not. Now that I have turned into a capitalist running dog, I will teach you too. When I'm done with you, you'll have the flexibility of a mutant.

Or else.

—Pavel Tsatsouline, Master of Sports

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Website <http://www.dbrigham.com>
Tel/Fax: (612) 827-3431 • Email: dbrigham@visi.com

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Praise for Pavel Tsatsouline's Beyond Stretching

"Pavel is the leading proponent of applied flexibility training for bodybuilding and strength athletics at work in the field today. His ideas are dynamic and fresh, he razes the sacred temples and shows the serious-minded fitness devotee another avenue of improvement. Real knowledge for real people interested in real progress."

—*Marty Gallagher, Editor, Farnham Performance Press, health and fitness columnist, Washington Post.com. World Masters Powerlifting Champion*

"The foremost authority, critic, and writer in the emerging "science of flexibility" is a Russian physiologist, Pavel Tsatsouline. His book *Beyond Stretching* is without question the definitive text on the subject. It is **MUST READING** for every athlete...**YOU HAVE TO GET A COPY OF IT!**"

—*Juan Biasotto, Ph.D., Powerlifting USA, Emmy award winner, sports psychologist and writer, Four-time Powerlifting World Record Holder*

"Pavel has great ideas on flexibility and strength exercises. We agree on all aspects of flexibility."

—*Bill Supertoot, Wallace, M.Sc., World Kickboxing Champion*

"As an athlete, a coach, and a strength trainer who has personally done it all in the sports world from martial arts to the NFL, I have always experimented on me first when I read something as radical as *Beyond Stretching*. When I went into my first, full-to-the-floor splits in ten years, after just three weeks, I realized why this Russian was so cocky. It's because he is so damned right"

— *Carter Stamm, New Orleans, LA*

"Here are a book and video that present a revolutionary Russian system of stretching that's easy to do and get results fast.

I wrote in my review of Pavel Tsatsouline's book *Power to the People!: Russian Strength Training Secrets for Every American* that Pavel's methods get results while violating many of the "truths" that have been held as sacred for so long in the world of strength development.

In *Beyond Stretching: Russian Flexibility Breakthroughs*, he again offers result-producing methods, this time for increasing flexibility, while again violating what has been held as truths ever since you were in grade school gym class. Pavel's writing style is no nonsense, efficient and quite often funny. If you are looking to be coddled, you won't get it from him. He tells you when something is tough and then he tells you to do it any way. The beauty of it is when you do what he says, you will begin seeing progress in a couple of weeks.

I have been training in the martial arts for nearly 36 years and, as such, stretching exercises have been part of my regular routine. As a result, I'm more flexible than the average guy. After reading this book and viewing the video, I tried four of Pavel's exercises. Three weeks later, my flexibility had improved by about 20 percent. At this rate, I figure I'll be able to scratch my head with my big toe in a couple more months.

—Loren W. Christensen, author of *The Fighter's Fact Book*, *Fighting Power* and *Speed Training*

"This is the only really interesting book on stretching I've encountered. Pavel's ideas are radical, but sensible if you think them through and apply them carefully.

His joint mobility drills alone are worth the price. Much of this book is geared towards the elite athlete who is already far along the learning curve. Nevertheless, as a reasonably in shape middle-aged guy with increasingly creaky joints, I found this book to be an invaluable resource. Buy the book and the video. You'll get your money's worth."

—Kenneth W. Robinson

"Pavel's stretching protocol should be considered the first, last, and only choice for athletes, full-contact fighters, and sedentary folks alike for achieving maximum results in minimal time. This system actually teaches you how to reset the neuro-muscular control of your muscles! No kidding, by following the specialized methods in this book, even an untrained, middle aged man can achieve FULL SPLITS in less than half a year... fighters will learn specialized kicking drills and "dynamic flexibility" drills that greatly improve the velocity and destructive power of your kicks while at the same time protecting the knee ligaments from injury—even if you miss a full-power kick!

I am shocked and amazed at the quality of the results that his training methods have produced for me. And in so little time! There is something here for everyone, and I give this book (and all Pavel's books) my highest recommendation. Truly, a masterpiece that belongs in every athlete's collection."

—*Sean Williams, Long Beach, NY*

"This book is well written (even a little funny!) and has some great info about stretching. It dispels a lot of classic stretching myths and gives some good solid approaches to achieving better flexibility. It's helping me become more flexible a lot faster than I was progressing using the "classical" approach. It's a must for martial artists! Check it out."

—*Chris Feitteri, Upland, CA*

"Lots of useful information on improving flexibility and avoiding injury. I like Pavel's no-nonsense writing style. I got immediate benefits from reading it!"

—*Bill Guis, Boston, MA*

To Mom



Foreword

Dear Comrade:

The readers of my earlier work *Beyond Stretching* have reported great gains in their flexibility. They also noted that some of the exercises were not very user-friendly and were difficult to organize into a personal program.

Not any more.

In the three years since the release of *Beyond Stretching* I have given many flexibility seminars to a variety of groups, ranging from mere mortals to elite martial artists and SWAT officers. However, I did not just teach, I also learned from my students. I presented a large volume of material from a great variety of sources and countries. The information ranged from the latest academic research, to the intuitive discoveries of esoteric martial arts.

I watched what clicked and ruthlessly eliminated the exercises and techniques that were either difficult to learn or less than maximally effective. The result is *Relax into Stretch: Instant Flexibility through Mastering Muscle Tension*, your friendly new shortcut to having the flexibility of a mutant.

—Felix Tsatsouline, Master of Sports
January 2001, Santa Monica, California



Table of Contents

Stretching is NOT the best way to become flexiblePage 13

Why Americans lose flexibility as they grow older • the dangers of physically stretching muscles and ligaments • *the role of antagonist passive insufficiency* • the nature and function of the *stretch reflex* • how to master muscular tension • how to inhibit the stretch reflex • intensive and extensive learning methods.

Waiting out the Tension— relaxed stretching as it should bePage 21

Just relax—when and when not to use the technique of *Waiting out the Tension* • **Victor Popenko's** key to mobility • the importance of visualization • why fear and anxiety reduce your flexibility • maximizing perceived safety in the stretch.

Proprioceptive Neuromuscular FacilitationPage 27

How Kabat's PNF fools your stretch reflex • the function of the *Renshaw cell* • why it works to pre-tense a stretched muscle.

Isometric stretching rules!Page 29

Why contract-relax stretching is 267% more effective than conventional relaxed stretching • what the 'frozen shoulder' has to teach us • the lifestyle problem of '*tight weakness*', • why isometrics is more practical than weights.

Extreme flexibility through Contrast BreathingPage 31

How to breathe your way to greater flexibility • effective visualizations for the tension/release sequence • avoiding the dangers of hyperventilation.

Forced Relaxation— the Russian spirit of stretchingPage 35

How to turn the contract-relax approach into a thermonuclear stretching weapon • determining correct duration • tips for the correct release of tension.

The final frontier: why Clasp Knife stretches will work when everything else failsPage 37

How to cancel out the *stretch reflex* • taking advantage of the *inverse stretch reflex* • the last line of defense against injuries • shutdown threshold isometrics • mastering the Golgi tendon reflex.

Why you should not stretch your ligaments—and how you can tell if you arePage 39

Yoga postures and stretches to avoid at all costs • the function and limitations of your ligaments.

Stretching when injuredPage 41

Rest, Ice, Compression and Elevation • what happens when a muscle gets injured • contracting and releasing the injury • why stretching won't help a bad back and what to do instead.

The demographics of stretchingPage 43

Why your age and sex should determine your stretches • the best—and worst—stretches for young girls, boys and adolescents • a warning for pregnant women • what's best for older folks.

The details, the schedulePage 45

Isometric stretches—when to do them and how often • how to know if you are doing too much • Bill 'Superfoot' Wallace's hardcore stretching schedule • correct order and choice of stretch • why isometric stretching should be the last exercise you do in your day.

The Relax into Stretch drills— a quick referencePage 47

1. The Souped Up Toe Touch	Page 49
2. The Spine Decompression Hang	Page 51
3. The Improved Cobra	Page 54
4. The Side Bend	Page 57
5. The Spine Rotation	Page 60
6. The Lateral Neck and Trap Stretch	Page 61
7. The Headache Buster	Page 62
8. The Anti-Slouch Neck Stretch	Page 63
9. The Head Turner	Page 64
10. The Chest Opener	Page 65
11. The Overhead Reach	Page 67
12. The Biceps and Shoulder Stretch	Page 68
13. The Shoulder Blade and Lat Stretch	Page 69
14. The Upper Back Loosener	Page 71
15. The Wrist Flexion	Page 73
16. The Wrist Extension	Page 74
17. The Good Morning Hamstring Stretch	Page 75
a) standing	Page 75
b) seated on a chair	Page 76
c) seated on the floor	Page 77
18. The Kneeling Hip Flexor Stretch	Page 78
19. The Lunge Hip Flexor Stretch	Page 80
20. The Karate Stance Hip Flexor Stretch	Page 82
21. The Karate Stance Groin Stretch	Page 84
22. The Seated Groin Stretch	Page 86
23. The Calf Stretch	Page 89
24. The Shin and Instep Stretch	Page 91

How much flexibility do you really need?Page 93

Why excessive flexibility can be detrimental to athletic performance • why old school strongmen instinctively avoided stretching • what stretches powerlifters and weightlifters do and don't need • warning examples from sprinting, boxing and kickboxing.

When flexibility is hard to come by, build strengthPage 96

Plateau-busting strategies for the chronically inflexible • *high total time under tension.*

Two more plateau busting strategies from the iron worldPage 97

Popenko's flexibility data • the reminiscence effect • the dynamic stereotype
• How to exceed your old limits with the stepwise progression.

**Advanced Russian Drills for Extreme Flexibility—
A Quick ReferencePage 99**

25. The Side StretchPage 100
26. The CossackPage 102
27. The Reverse CossackPage 104
28. The Hip and Side StretchPage 106
29. The Crawling LizardPage 108
30. Hamstring StretchesPage 109
31. Hip Flexor/Quad StretchesPage 114
32. The Lower Calf StretchPage 117
33. The Front SplitPage 118
34. The Bent Press StretchPage 123
35. The Modified Reverse TrianglePage 126
36. The Roadkill SplitPage 128
37. The Side SplitPage 131

Relax into Stretch delivers instant flexibility!Page 138

Stretching is NOT the best way to become flexible!

Honest ignorance is better than
simulated understanding.

—JUGA Biasotto, Ph.D.,
sports scientist, woha champion, powerlifter

Stretching in America is a cult. Every fitness-junkie guru preaches flexibility. They growl, they drool and they promise hell to the infidels who don't or won't stretch. Yet the stretching methods they offer are at best laughable, at worst dangerous.

Americans lose flexibility as they grow older because they are used to relying on the elasticity of their tissues. A lifetime of activity builds up microtrauma in our muscles, tendons and fascia. When it heals, a scar is formed. It pulls the wound together, making the muscle shorter. Some American doctors believe that relaxed stretching after exercise can prevent the muscle from healing at a shorter length. That point of view gives credibility to some sick stretching methods.

I heard that sumo wrestlers used to assume their deepest split position, then have their sensei jump on their thighs to rip the tissues and bring the big boy down to a full split. In a few weeks or months the ground meat supposedly healed at a new length and splits were no longer a problem. I do not know if someone was pulling my leg with this story, but I do know an aerobic instructor who purposefully tears her hamstrings by overstretching them, then spends hours in that position to insure that the muscles will heal at a new, greater, length. Sick—very sick.

Even if you could prevent the muscle from shortening—and that is questionable—a stiffening of the tendons and ligaments is certain. "There isn't an exercise that can prevent the aging of connective tissues. It's as certain as radioactive decay," quipped Academician Nikolay Amosov from the former USSR.

Ligaments and tendons are made of collagen, which gives them strength, and elastin, which, as its name implies, provides elasticity. As you age, the elastin/collagen ratio changes in favor of collagen, or scar tissue. If you relied on tissue elasticity for flexibility, you can kiss your flexibility good-bye. And if you put up a fight and try to literally stretch yourself, change the mechanical properties of your muscles, tendons and ligaments, your desperate attempts will bring more injuries than flexibility.

Why traditional stretching failed you, or 'garbage in, garbage out'

The traditional Western approach to flexibility has failed because it started with the assumption that muscles and connective tissues need to be physically stretched. Other myths snowball from there. Hackers have a saying, "Garbage in, garbage out." If the premise is false, all the conclusions will be wrong, no matter how sterling is the logic leading up to them.

Let it sink in: the premise that you need to stretch if you want to be flexible is wrong.

Ugh? How can it be?

Try this test. Can you extend one leg to the side at a ninety-degree angle?



Your leg that is up on the table is now in the position for a side split. Now do it with the other leg:



So, what stops you from spreading both legs at the same time and doing what Americans call 'the Russian split' and Russian ballet dancers call 'the dead split'?



No chuckles of 'simulated understanding', please, Comrade!

No, it has nothing to do with your ‘short muscles’.

Listen to this: **no muscles run from one leg to the other. No tendons, no ligaments, nothing but skin.** Like the wheels on your Land Rover, your legs boast independent suspension. That means you should be able to bring the other leg out at the same angle and do a split without stretching a thing.

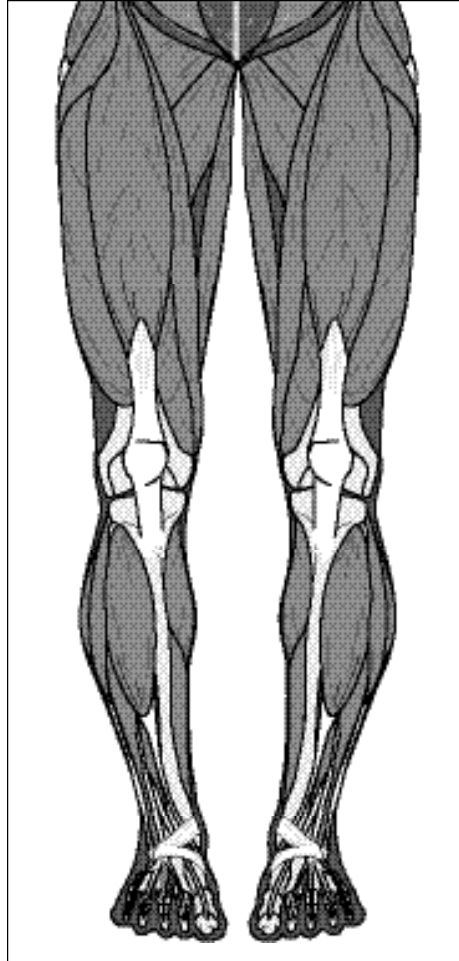
So why can't you?

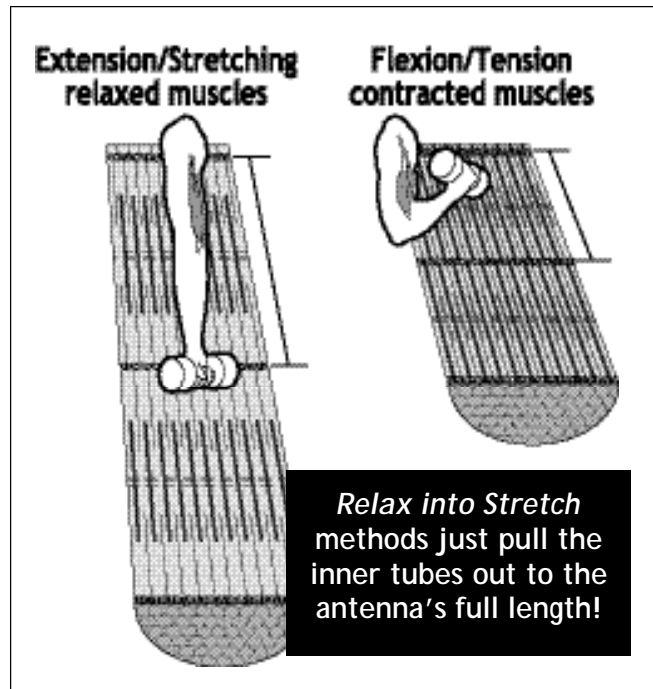
Fear. Tension. The muscles tighten up and resist lengthening. Russian scientists call it *antagonist passive insufficiency*.

Based on your previous experiences—sitting all day or performing monotonous labor, or exercising incorrectly—your nervous system has picked the favorite length for every one of your muscles and prefers to keep it that way. Whenever you reach too far compared to this standard, the *stretch reflex* kicks in and reins your muscles in.

If you try something really aggressive that you have never done before—for instance splits—the stretch reflex panics and stiffens up your muscles with all its might.

Comrade, it is not short muscles and connective tissues that make you tight; it is your nervous system, ‘the muscle software’ that refuses to let your muscles to slide out to their true full length! A muscle with pre-Depression connective tissues and more scars than a prize fighter is still long enough to display as much flexibility as allowed by its associated joints. Master the muscular tension—and you will be as flexible as you want to be, at any age.





If you compare your muscle to a telescopic antenna, conventional stretching mangles the outer tube in a vain attempt to elongate it. In contrast, *Relax into Stretch* methods just pull the inner tubes out to the antenna's full length!

Reclaim the buoyant flexibility of your youth—and more

In order to get super flexible you must do three things.

1) Trick your muscles into relaxation with various natural reflexes.

A reflex is your body's automatic response to some stimulus. For example, the stretch reflex that contracts your muscles in response to stretching is not voluntary, 'it just happens'. The human organism sports many such reflexes that make your life easier by responding to various standard situations without calling the HQ, or your brain, for every stupid thing. To give you another example, blinking in response to fast movement near your face is a reflex that protects your eyes. You get the idea.

The reflexes form a hierarchy where some of them may override others because they have more 'stripes'. *Relax into Stretch* teaches you how to inhibit the stretch reflex with other reflexes that are higher up in the food chain.

2) Convince your nervous system that the new range of motion is safe.

The first step has taken you there half way. Once your muscles have been duped into relaxing against their will, they will face the music. Your stretch reflex will think, "Hey, the muscle is longer but it hasn't ripped in half! This isn't as bad as I thought."

Now make sure to progress at a very conservative pace. Pay constant attention to a sense of safety in your stretching, to keep your nervous system relaxed and happy. If you do not feel safe in some precarious position, your muscles will refuse to relax.

Building strength in the stretched position will also go a long way towards confidently releasing your muscles into a super stretch.

3) Create the new 'habitual' muscle length.

There are two ways to create a new habit: extensive and intensive.

A good example of extensive learning is memorizing your boss's phone number after you have dialed it a hundred times. Contrast that with the instant filing away of the phone number of a traffic-stopping lady you have just met. It sure worked for me when I met my future wife.

Applied to stretching, extensive learning refers to holding the final stretched out position for as long as you can stand it. Repetition will reset the standard of length. The intensive method calls for brief but intense stimulation with powerful techniques that involve intense muscular contraction. To get the best effect, both extensive and intensive methods are employed.

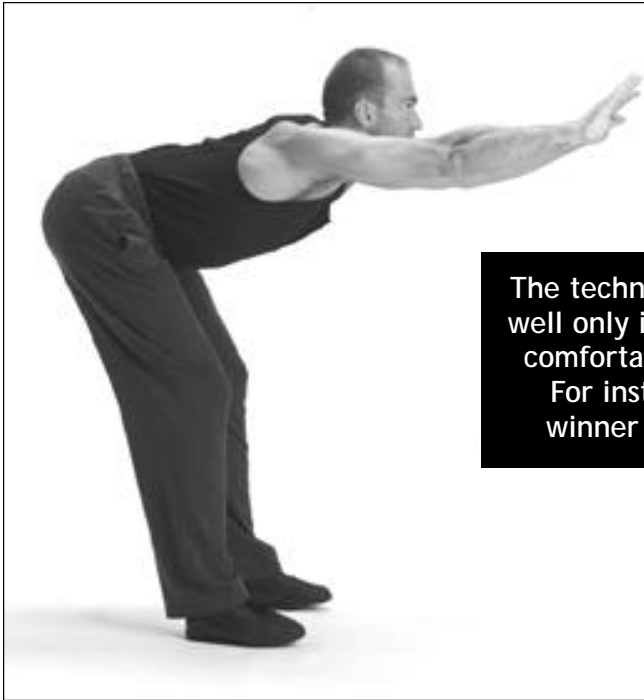
Once you do all of the above—full splits are yours!

Waiting out the Tension— relaxed stretching as it should be

The most obvious way to control muscular tension is ... well, just relax.

Get in a comfortably stretched position and stay in it until your muscles relax. It usually takes a couple of minutes—although timing yourself is a decidedly bad idea. The relaxation time will vary greatly depending on your training level, fatigue, stress, the given muscle group, and many other variables. Just listen to your body.

The technique of *Waiting out the Tension* works well only in select lower body stretches that are comfortable enough to stay in for a long time. For instance, the Leg Straddle is a winner and the Good Morning is not.



The technique of *Waiting out the Tension* works well only in select lower body stretches that are comfortable enough to stay in for a long time. For instance, the Leg Straddle (below) is a winner and the Good Morning (left) is not.



Once the muscle has relaxed, increase the stretch. Your muscles will tighten up again. One more time, wait the tension out. Breathe deep, easy, and slow. Repeat until you are close to getting spasms.

If you paid attention, you have understood that what has been described is not the literal stretching of a relaxed muscle, but rather a patient **waiting for the muscle to relax and picking up the slack.**

Your reflexes, like everything else in your body, get tired.

When the doctor taps your quad tendon with a hammer, your leg kicks out and the muscle gets stretched. If the doctor persisted at whacking you under your kneecap, your kicks would get progressively weaker and weaker until the hammer could not get a rise out of you at all. By the same token, if your muscles tighten up once you have assumed a stretched position, you can wait the stretch reflex out.

This involuntary neural mechanism is what makes your muscles resist the stretch. If you stay down long enough, usually a couple of minutes, the stretch reflex will get tired of firing up your muscles, allowing them to finally relax. Now it is time to carefully increase the range of motion until the muscles start resisting, and repeat the process... You may massage the stretched muscles and/or gently 'twitch' them once in a while to help the relaxation process and ease the discomfort.

If you would like to know why these maneuvers help, read my book *Fast & Loose!: Russian Champions' Dynamic Relaxation Secrets.*

While many Russians and Orientals have been successful with *Waiting out the Tension*, I believe that Americans are generally not patient enough to stretch in this manner. No offense intended, just a cultural observation. You guys tend to get eager and start forcing the muscle into more stretch. The results are injuries and zero progress. Perhaps you will overcome your busy nature by following the example of world champion kickboxer Bill 'Superfoot' Wallace who stretches at night in front of the TV when he is not in a hurry and does not feel competitive.

From personal experience I can tell you that you should never, ever stretch when you are tight on time, no pun intended. Rushing through your stretches makes it impossible to relax, delivers no gains, and almost guarantees injuries.

Do not abuse relaxed stretches and stay away from them altogether when it comes to your back. Soviet sports scientist L. P. Orlov warns: "While most large joints are stabilized by muscles and the ligaments do not affect their position, in the case of the spine it is the ligaments that play the important role of maintaining the normal spinal alignment. Insufficiency of the ligamentous apparatus makes it difficult to maintain the normal spinal curve with muscle tonus and tension alone. Weakening of the ligaments unavoidably leads to deformation of the spinal column."

In other words, don't do relaxed stretches for forward flexion of your spine or toe touching.

And make sure that *Waiting out the Tension* is not the only stretching method you employ. "Flexibility must always be in a certain relationship with strength," Orlov states—and unlike *Forced Relaxation* and other specialized techniques you are about to learn, *Waiting out the Tension* does not develop strength.

Finally, if you insist on doing relaxed stretches, remember the words of a famous Russian coach who said that in sports conditioning—as in an intimate situation—trying too hard just dooms one to failure. Do not will your muscles to relax. Let it happen.

Waiting out the Tension

- Get in a comfortably stretched position and patiently stay in it for a few minutes until your muscles relax.
- Increase the stretch. Your muscles will tighten up again. One more time, wait the tension out. Breathe deep and easy. Repeat until you are close to getting spasms.
- You may massage the stretched muscles and/or gently 'twitch' them once in a while to help the relaxation process and ease the discomfort.
- The technique of *Waiting out the Tension* works well only in select stretches that are comfortable enough to stay in for a long time.
- Never use the *Waiting out the Tension* for forward spine flexion or toe touching type stretches
- Don't get eager and start forcing the muscle into more stretch.
- Never stretch when you are in a hurry
- Don't apply the *Waiting out the Tension* technique to your back.