Allen Willette, NMT – Your Tennis Elbow Tutor @ Tennis Elbow Classroom
http://tenniselbowclassroom.com/

INTRODUCTION

Tennis Elbow's Vicious Cycle: How It Starts

You probably didn't give your elbow pain that much thought at first. It probably didn't seem all that serious in the beginning.

Tendon problems like Tennis Elbow often come on slowly. They sneak up on you, and you often don't realize the seriousness of it.

It starts with a little burning, some stiffness in the morning.

It seems like an irritating—But fairly minor nuisance and you tend to brush it off, thinking it's nothing.

Chances are, you just 'self-treat,' grabbing some Ibuprofen from the medicine cabinet and an ice pack from the freezer…

But slowly it builds with each backhand, chord or keystroke.

Eventually, it dawns on you: This thing is disrupting your life and sucking all the enjoyment out of your tennis, golf or guitar playing…

Or worst yet, it's interfering with your work and livelihood!

And that's when you turn to your doctor (or a medical website) for answers, trusting you'll get some sensible, rational advice…

What Your Doctor Won't Tell You About Tennis Elbow

In the present age of managed care, you're lucky if you get two minutes with your doctor…

Before you can even finish describing the stiffness, the burning and the sudden, sharp pains in your elbow tendons, you see your doctor reaching for the prescription pad…

And what you hear is something along the lines of:

> ***"You have Tennis Elbow… It's a form of Tendonitis. Take these anti-inflammatories, ice it, rest it, wear this brace – And come back if that doesn't take care of it."***

Before you know it, you're back. This time you're sent to physical therapy, and after several weeks of that without progress your doctor wants to give you a Cortisone shot!...

But, will your well-meaning, overworked doctor tell you that all these standard treatments really treat is your symptoms? That they don't actually treat the CAUSE of your problem?

Flare Up After Flare Up, Despite All The Pills, Ice, Shots And Rest – WARNING: You May Be Stuck In The Tennis Elbow Triple Trap!

Will your doctor tell you that most Tennis Elbow Tendonitis sufferers struggle through flare-up after disappointing flare-up?

…Sometimes for months or even years on end – Despite all the pills, shots and rest?...

…Even with all the ultrasound, ice, braces, straps and creams?

No. Not likely – But chances are you'll find out for yourself soon enough:

Nothing seems to help for long—If it helps at all.

At best, maybe you do manage to enjoy a few pain-free weeks or months. (Sure that happens) But…

…Then one day after a few sets on the court, hours on your keyboard or chords on your guitar, that old, familiar, burning irritation shows up again—Worse than ever.

So, you take a couple of extra pills this time, ice a little more aggressively, tighten that brace a little more…

Maybe you even resort to that Cortisone shot, hoping you're helping your injury heal, but, in the back of your mind beginning to seriously doubt that's what's really happening…

Of course, you want to believe the standard medical treatments are based on a rational, scientific understanding of Tennis Elbow and its causes. We all do!…

We naturally assume those treatments are focused on treating our injuries in the best possible way to help them HEAL and fully recover…

Unfortunately, as you're about to see, the reality is that these "treatments" are largely ***irrational***, in that they fail to treat the cause and may do more harm than good…

Leaving you dependant on harmful drugs to manage the pain and get through your day…

Leaving you trapped in a vicious cycle, trying to live with the uncertainty of when your next flare-up will be… And how bad it will be THIS time!

It's what I call **The Tennis Elbow Triple Trap,** and I'll do my best to help you escape it…

CHAPTER ONE:

The Tennis Elbow Triple Trap

Why The Three Most Common Tennis Elbow Treatments Are Actually The Most Dangerous Tennis Elbow Treatments

Anti-Inflammatory Meds: The Mistake Of Attacking Inflammation—And Possibly SLOWING Your Healing

ABOUT ANTI-INFLAMMATORIES

Article about "The Drug Treatment of Soft Tissue Injuries" supporting the idea that although very often prescribed by Doctors, anti-inflammatory drugs have not been proven to speed healing.

Iowa Orthopedic Journal 1993;13 J. A. Buckwalter and S. L. Woo

http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2329020

Anti-inflammatories may delay healing and slow the recovery of strength in injured muscles and tendons

John Orchard MBBS, PhD & Thomas M. Best, MD, PhD—Clinical Journal of Sport Medicine, Vol. 12, No.1, 2002

Every day countless Tennis Elbow Tendonitis sufferers make the mistake of going to their doctors, getting prescriptions for their pain and "inflammation", and looking no further, because that's what everyone else seems to be doing - and they don't know any better.

Without understanding the true cause of Tendonitis, it's all too easy to end up mistaking pain relief for healing.

No one blames you for thinking the pain is the problem and wanting relief from that pain, of course! – It's just that…

> **You can't expect to permanently break the cycle by treating just your symptoms -** Any more than you can expect to permanently put out those trick re-igniting birthday candles by blowing on them!

One of the obvious dangers is that without symptoms to warn you when you're overdoing it, you can easily cause more damage, and not feel the pain of the injury worsening until much later when it's too late.

(Perhaps you've already been through this cycle a few times.)

And it gets worse… The latest research suggests that Anti-inflammatory drugs:

1. Have NO ABILITY to help the healing process…
2. Instead these drugs they may actually be HARMFUL to muscle and tendon healing. (See sidebar.)
3. And may DELAY or even completely STOP the recovery of strength in the injured muscles and tendons!

(Not to mention the risk of serious gastrointestinal and other side effects from these drugs. "*GI tract ulcerations and bleeding can occur without warning*"!! One popular brand admits.)

> **Bottom line: These drugs may interfere with or STOP the healing of your Tennis Elbow!**

Is fighting inflammation really worth these risks?

Not sure?

Well, here's the biggest reason why it isn't…

Inflammation Is NOT The *Cause* Of Your Tennis Elbow Tendonitis

TENNIS ELBOW TRIPLE TRAP: MISTAKE #1

"Misunderstanding the inflammation process"

The first mistake so many Tennis Elbow sufferers make is neglecting to understand the HEALING PURPOSE of the inflammation process…

We're falsely led to believe that by suppressing the inflammation with anti-inflammatory drugs we're helping the healing process —Only inflammation IS part of the healing process!

These drugs have no healing ability, and may instead be SLOWING and prolonging the healing of the tendon injury!

As you know, Tendonitis, by definition, is when you have an injured tendon that has *supposedly* become inflamed. The '*itis*' in Tendonitis (or Tendinitis) suggests an inflammatory condition.

Although most 'textbook' medical explanations, online and off, almost make it sound as if the inflammation itself is the cause of the problem, it CAN'T be, because inflammation is a symptom.

- IF you have inflamed tendons the inflammation is a SYMPTOM of your tendon INJURY—It's not the *cause* of it.

- First comes injury, the cause—THEN comes inflammation, the effect

Just as where there's smoke, there's fire—Where there's inflammation there's injury. Inflammation doesn't *cause* injury, though, any more than smoke causes fire!

Of course, inflammation does cause pain, and by suppressing the inflammation we can relieve the pain - It "works" - Right?

That's trap! The first Tennis Elbow treatment trap.

Sure, it *seems* reasonable that by "treating" the inflammation we're helping the healing process. After all, it usually *feels* better when we take a few anti-inflammmatories… for a few, fleeting hours, anyway!

There's only one problem, inflammation IS part of the healing process!—It's a fact—Whether you injure a muscle, a tendon or a ligament, you won't have any healing without it!

The important thing to focus on is that if you have recurring or persistent (chronic) tendon pain, it usually means you have an INJURY which isn't healing properly.

The weak, poorly-healed tissue either keeps getting re-injured or it simply isn't healing at all. (More about this vicious cycle in Chapter 2).

And any anti-inflammmatories you're taking could be slowing your healing even more. In effect, just POSTPONING the pain until your next re-injury.

I'm sure that's not your goal!... But who can blame you if you've fallen into that trap, considering all the misinformation and mis-directed focus on inflammation as if it were the problem!

So, what about braces and splints? – (The second most commonly prescribed treatment.) Don't they help the injury heal?…

Could You Be Slowing Your Healing, Causing Scar Tissue Build-Up And Making Your Tennis Elbow WORSE By Wearing That Brace?

TENNIS ELBOW TRIPLE TRAP - MISTAKE #2

"Using a brace, band or tape"

The second mistake those with Tennis Elbow too often make is immobilizing their elbows with braces, bands or tape.

This often helps reduce the pain, but just like all the other conventional "treatments" this relief comes at the expense of the healing process.

By preventing movement, they actually interfere with healing, allowing adhesive scar tissue to form—and prolonging the recovery time.

A broken bone needs to be fixed in place and immobilized with a cast in order to heal properly—No debate.

But that's not what injured muscles and tendons need to heal (unless there's a major tear, which is a lot more serious than the usual Tennis Elbow injury.)

Gentle, regular motion is essential for the proper healing of muscles and tendons in most cases—NOT rest, restriction or immobilization.

> **Braces, bands or 'splinting' can cause Adhesive Scar Tissue to form and lead to very poor healing –** Restricting muscles and tendons as they're healing – as logical as it may *sound,* is contradictory to the way the healing process works for these 'Soft Tissues' (More on that in Chapter Three.)

Making this the second mistake of the three treatment traps.

Just like anti-inflammatories, braces, bands or tape may help you temporarily feel less pain while you're using them…

(Probably by cutting off some of your circulation and causing a slight numbing effect in the area)…

But it may be at the expense of your healing!

Sports medicine studies back this up, showing that movement is better than rest and restriction—Even in the early treatment of sudden, 'acute' injuries, like sprains or strains, which are considered MORE serious than Tendonitis.

By bracing and not allowing movement you can end up with:

- **A poor, weak repair of the injury,**
- **Gummy Adhesive Scar Tissue,**
- **A loss of flexibility and strength,**
- **And consequently, a much higher risk of re-injury**

…At this point, when your tendons fail to heal and your Tennis Elbow keeps getting worse, doctors often turn to more aggressive measures: Cortisone injections…

But can a shot really help your tendons *HEAL*?…

MOBILIZATION VS. IMMOBILIZATION

Studies are showing that starting to move the injured area sooner is better than immobilization in the early treatment of many types of 'Soft Tissue Injuries'

Pekka Kannus, MD, PhD—THE PHYSICIAN AND SPORTSMEDICINE Vol 28, No 3. MAR '00

Cortisone: Miracle Drug—Or Medical Menace?

TENNIS ELBOW TRIPLE TRAP - MISTAKE #3

"Cortisone Shots"

The final and most critical mistake Tennis Elbow sufferers so often make, is resorting to Cortisone shots.

No one tells them that Cortisone can:

Slow muscle and tendon healing,

Cause cell death and tendon weakening,

And make it very difficult to regain full strength in that tendon ever again.

Cortisone is often considered the last resort when Tennis Elbow doesn't improve in time with lesser measures, (or the next-to-last resort if surgery is being considered).

The theory here is the same as with ice and anti-inflammatory pills: Stifle the inflammation so the tendon "can heal".

Cortisone is a very powerful inflammation suppressor, which can be injected right into what Doctors view as the "source" of the pain, but this is also a dangerous, misdirected approach for three reasons:

1. Inflammation is NOT the REAL problem—It's a symptom of the healing process (If you have it at all)…

2. The source of the problem isn't only in the tendons at your elbow where it hurts—And can't be pinpointed that easily…

3. And, worst of all, Cortisone has been shown to WEAKEN tendons and SLOW their healing.

Once considered a miracle drug, **Cortisone has been found to degrade and weaken muscle and tendon tissue**. (See sidebar.)

(It does this by suppressing the cells that produce Collagen, the basic protein building block of most tissues in the body, which is needed to REPAIR ANY INJURY.)

…Causing **"cell DEATH and tendon atrophy"** [WEAKENING and SHRINKING of the tendon]…

*****Making Cortisone shots the third, and by far, the most serious mistake made by Tendonitis sufferers.**

CORTISONE

"…Corticosteroid [Cortisone] *injection into tendon tissue leads to cell death and tendon atrophy"*

Nirschl RP: Elbow Tendinosis /Tennis Elbow. Clin Sports Med 11:851-870, 1992.

Study showing that [Cortisone] *may weaken the collagen in tendons and leave the injected tendon at risk of RUPURE:*

The American Journal of Sports Medicine *34:1992-1997 (2006)*

In Summary: Forfeiting Healing For Pain Relief

What the standard medical treatments all have in common is the poor and often dangerous trade-off of sacrificing healing for pain relief.

The three big pitfalls of The Triple Trap: Anti-inflammatory drugs, braces, and Cortisone shots—May make your elbow feel better temporarily, but at the cost of slowing your healing, potentially weakening your muscles and tendons, and therefore…

Keeping you TRAPPED in a vicious, painful, ever-worsening cycle.

Next, in Chapter Two: Understanding how the cycle gets started in the first place…

CHAPTER TWO:

The Causes Of Tendon Pain

The Multiple Possible Causes Of Tendon Pain, How Tendons Are Injured, And Why The Old "Inflammation" Perspective Is Wrong

What Are Tendons? How Are They Injured? And Why Don't They Heal Faster?

OVERUSE INJURY

Tendonitis is what's known as an Overuse Injury or 'Repetitive Strain Injury' which means exactly what it sounds like:

Repetitive movements slowly and progressively overload and Strain first the muscle and then the tendon, causing Injury.

With Tendonitis, the injury is usually in the form of Micro-Trauma. (See below)

MICROTRAUMA

'Microtrauma' is the general term for tiny or microscopic injuries in the body.

With Tendonitis, tiny tears can occur in the muscle, the tendon, tendon sheath, or where the tendon attaches to the bone. Pain may not be felt at first—But later it can become severe.

ACUTE INJURY

The injury is called 'Acute' if the tendon or muscle is injured suddenly, by being partially torn, called a 'Strain,' or fully severed, which is called a 'Rupture' (A ligament tear is called a 'Sprain.')

Take a moment to look at the palm side of your hand and wrist. The two obvious "cords" in the middle of your wrist are tendons.

Now open and close your hand. Do you see the movement deeper under the skin of your wrist, next to the two big, obvious tendons? Those are several deeper, smaller tendons moving.

Most of the muscles that open and close your hand are not in your hand. They're in your forearm. Tendons are what connect those muscles to the bones of your fingers, allowing you to move them.

Tendons are basically ropes or cables that connect your muscles to your bones. The muscle contracts and pulls on the tendon, and the tendon pulls on the bone it attaches to and moves.

There are several different ways tendons can be injured:

1. A strain—A sudden, forceful trauma causing a significant ripping or tearing of the tendon,

2. Blunt trauma—An impact to the tendon that bruises it,

3. **And Micro-trauma**—Tiny or even microscopic tearing in the tendon over a period of months or even years (See sidebar.)

Tennis Elbow and other forms of Tendonitis can sometimes begin the first two ways: There's an initial tendon strain (or bruise) that doesn't heal properly, and it keeps getting re-injured. The initial major injury weakens the tendon, and it becomes a recurring, chronic injury.

Most of the time, though, Tendonitis doesn't begin with a sudden, blunt trauma or major tear, instead, the damage usually happens the third way—Insidiously, through the process of micro-trauma—Because of chronic (persistent) MUSCLE TENSION.

"Tendonitis" is usually caused by hundreds or thousands of microscopic tears in the tendon. Many tiny injuries—Not one big one.

At least that's the part everyone seems to agree on, along with the fact that ALL tendon injuries tend to be very hard to recover from, since tendons don't have the same rich blood supply muscles do.

(The less blood supply, the less nutrients, oxygen and other supporting factors can reach the injury, therefore healing is slower.)

But that's where the agreement ends and the controversy, confusion and outright disinformation begins…

The Still Pervasive—But Long-Outdated Theory About 'Tendonitis,' And Why Your Tennis Elbow Pain Probably Has NOTHING To Do With Inflammation

How do you know if you really have Tennis Elbow "Tendonitis?"

You describe to your doctor the frequent burning pain in your elbow tendons and the stiffness you feel in the mornings, and without a single test, you're quickly diagnosed with Tennis Elbow "Tendonitis"…

Or, you look the symptoms up online yourself after a particularly frustrating episode of pain, and get the same response.

Either way, whether you self diagnose or get a medical opinion, that diagnosis—an educated guess, really—will most likely be based entirely on your symptoms.

So, the question is: How reliable are those symptoms when it comes to accurately diagnosing Tendonitis?

In other words, how do you know for certain your tendons are really *INFLAMED*?

You may be thinking:

> *"Doesn't the irritation, weakness and burning pain in my tendons, which won't go away or keeps coming back, mean I have inflammation? - Doesn't it mean I have Tendonitis?"*

No. It's not that simple, unfortunately—Despite what you've heard.

> **The idea that most chronic tendon pain (Tennis Elbow included) is caused by inflammation is an outdated theory—A MYTH—NOT a medical fact.**

It was the prevailing theory for decades—So long that even though the evidence now disproves it, Doctors, P.T.s, Athletic Trainers, and most medical websites continue to endorse and spread the inflammation myth.

And as you've seen, almost every treatment and so-called 'remedy' is directed at reducing, controlling or outright attacking inflammation…

But the truth is, those burning-pain symptoms in your tendons are not necessarily caused by inflammation.

Tendon pain is often NOT the result of tendon INFLAMMATION—Technically, it's often not really Tendon-**ITIS** at all…

The Bad News: Tendon Pain Is Usually Caused By Something Much WORSE Than Inflammation

TENDINOSIS

Recent research is strongly suggesting that many common tendon overuse conditions are NOT inflammatory in nature, as once believed.

Through various studies, including sonograms, tendon biopsies viewed under electron microscopes, MRIs, and dissections, researchers have repeatedly found signs of tendon degeneration, called 'Tendinosis' with little or no evidence of inflammation.

***Tendinosis**, the degeneration of a tendon with little or no inflammation, is now thought to be much more common than Tendonitis.*

TENDINOPATHY

*The general term **Tendinopathy** is now being adopted to classify tendon conditions - both degenerative and inflammatory - including Tendinosis Tenosynovitis, Tendonitis and Tendinitis (just a spelling variation on Tendonitis).*

Medical researchers have been reporting for decades that most tendon issues, thought to be inflammatory and typically diagnosed as "Tendonitis," rarely seem to involve inflammation.

That's right: NO INFLAMMATION.

Instead, what they've discovered and keep finding in the injured tendons they examine is clear evidence of degeneration. (Degeneration being the opposite of healing and repair.)

This means that instead of the normal repair process that should follow the injury, (which should include inflammation, since it's the first stage of repair and healing) researchers are finding that the tendon tissue is breaking down and is NOT being repaired.

It's called TendinOSIS.

Look at a healthy tendon under a microscope yourself, and you'll see highly organized, parallel bundles of bright white collagen fibers (the most common protean in the body.)

But, in the case of Tendinosis, the collagen in the tendon appears disorganized and disrupted, yellow or gray in color, thinner—Sometimes calcified—And even dead in places.

The collagen fibers that make the tendon strong and resilient are not being properly repaired.

Why is this happening? The researchers don't seem to know.

Two things *are* certain, though:

1. **Degeneration is <u>much</u> <u>more</u> <u>serious</u> than inflammation…**

2. **And trying to "treat" your tendon pain by going to war against inflammation ISN'T going to help you AT ALL.**

(*Even if you're one of rare cases that actually does have inflammation, suppressing it won't help you HEAL, because inflammation IS part of the healing process!*)

This changes everything! First of all, it means that ALL the medical, all the alternative and all the miracle-cure "remedies" for inflammation are WORSE than useless—They're dangerous.

Are you thoroughly confused now?... Well, if you haven't seen these videos yet, or didn't finish them, this may be a good time…

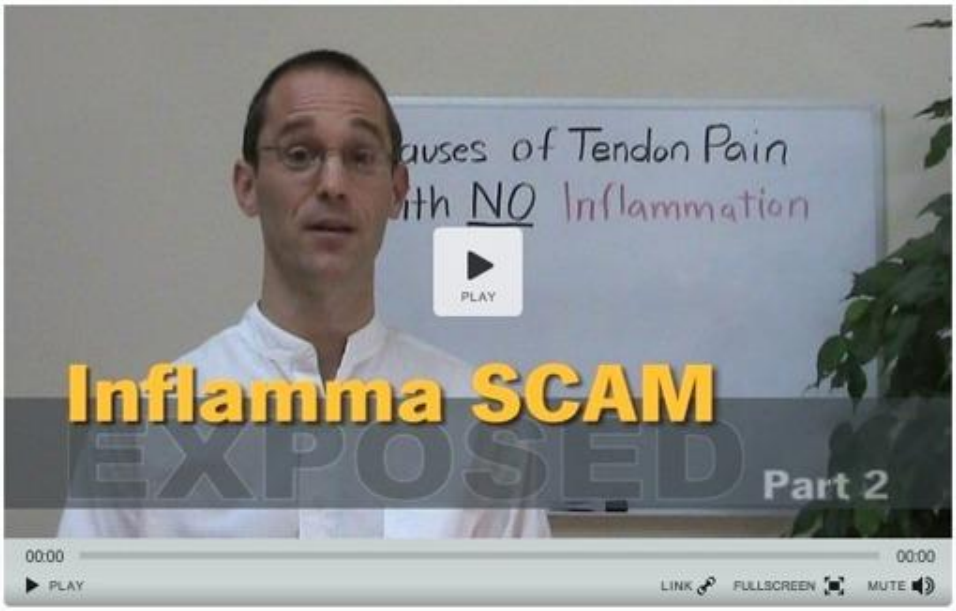
InflammaSCAM Exposed – Parts 1 And 2

InflammaSCAM Exposed: Tennis Elbow And The Inflammation Scam – Part One

http://tenniselbowclassroom.com/tennis-elbow-inflammation-scam/

InflammaSCAM Exposed – Part Two

http://tenniselbowclassroom.com/tennis-elbow-inflammation-scam-2/



These two videos are posted publicly at Tennis Elbow Classroom and you won't need any password to view them.

But in order to access the rest of the 'Tendon Tutorial' videos you'll need the password you received when you subscribed.

If you haven't subscribed (someone sent you this ebook, perhaps) and you'd like to get a Free Class Pass to these videos, just click the link below, subscribe and I'll send you the password:

http://tenniselbowclassroom.com/free-tennis-elbow-videos/

You've probably heard and read at least a hundred times that: Tendon pain = inflammation = TENDONITIS!

You've read it on the Internet or heard it from Doctors and other professionals over and over – *But does that make it true*?

Even as more evidence continues to be found and reported in medical journals that most tendon problems are degenerative and not inflammatory, it still hasn't caught on.

Doctors continue to diagnose tendon pain as Tendonitis, prescribe anti-inflammatories and give Cortisone shots, as if inflammation were the problem.

(Sometimes in conventional medicine the Left hand simply has no clue what the Right hand is doing.)

Nevertheless, doesn't this more up-to-date perspective about degeneration help to explain why tendon problems are so hard to recover from?... And possibly why yours still isn't better?

And why, if your Tennis Elbow tendon pain is the result of degeneration, all the treatments for inflammation are worthless to you?

I know. I know… The inflammation "fighting" pills, shots, potions or lotions made you feel better for awhile – Right?

The problem is these things can often relieve pain whether that pain is actually CAUSED by inflammation or not.

So, it's meaningless if you felt better after taking them—It doesn't mean you had inflammation to begin with.

Even worse, they may fool you into thinking you're getting better—As your tendon breaks down and degenerates even further!!

In spite of all the blaming, chasing and attempting to suppress inflammation, there's no way around the simple fact that it's part of the healing process.

- **Fact:** Inflammation is a normal and necessary part of the healing process.

- **Fact:** You CAN'T have healing and repair WITHOUT *some* inflammation—So it's not your enemy!

Yes, if you succeed in stopping it altogether you won't have any healing and repair, (which is probably why Cortisone shots are the absolute worst, most dangerous so-called treatment.)

ICE: Another Mistake That Can Slow Healing

Ice or cold therapy (Cryotherapy) continues to be recommended to treat tendon pain under the mistaken assumption that it's caused by inflammation and that inflammation should be suppressed.

Cold will often reduce pain regardless of what's causing it, though.

The way it works, whether in the form of ice or cold packs, is by constricting the capillaries (the tiniest blood vessels) and decreasing circulation to the area. And by numbing your nerve endings.

It's a much safer approach to pain relief than toxic drugs, but it's still of no use to the healing process at all, since:

A. Tendon pain is much more likely to be caused by degeneration than inflammation…

B. Inflammation is part of the healing process anyway, so it's not something you want to suppress…

C. And tendons don't have very good circulation/blood flow to begin with, making them slower to heal.

Therefore, decreasing the circulation to the injured tendon with ice can't possibly help the healing process—It's more likely to HURT it.

Wouldn't using heat to increase circulation—To bring more blood, and nutrients and oxygen with it to help healing make more sense?

(Of course, you wouldn't use heat during the first 72 hours, or so, after an 'acute,' traumatic injury, like an ankle sprain—But that's completely different from a chronic tendon injury that refuses to heal.)

The Good News Is Tendon Pain Can Sometimes Be Less Serious, If It's Still In The "Early Stage"

HYPERTONICITY

Excessive tone, 'too much tension' in a muscle—Which can cause pain all by itself without injury.

Muscle tension can ultimately cause injury to the muscle or tendon if not relieved, and it can lead to a state of 'Ischemia' (See the sidebar on the next page.)

Pain can have several different causes, but in the simplest terms, pain is what we feel when our nerve endings "complain" about something, to tell us there's a problem.

Of course, if you have tendon pain, you're probably conditioned by a mountain of misinformation to believe that inflammation is what the nerve endings in your tendons are complaining about.

And, yes, inflammation is certainly one *possible* cause of tendon pain – It's just not the only one or even the most *likely* one.

For one thing, excessive pressure or tension that builds up gradually will usually cause pain long before there's any damage or inflammation.

Imagine you were to pinch yourself rather hard: The nerve endings under your skin would start sensing there's too much pressure, and would start warning you something is wrong – By way of pain.

Or, if you were to slowly bend a finger back too far, the tension on the tendons and ligaments of your knuckles would begin hurting.

That's one kind of pain: The mechanical kind. It's meant to alert you to excessive pressure or tension, hopefully before anything gets damaged.

Muscle tension – alone – can cause very intense pain this way, which could be anything from a dull ache to a raging inferno of burning pain you feel in the tendon, in the muscle itself, or both.

> *So, the good news here is that if your tendon pain is in its early stages it might be entirely mechanical – Pain from tension – That hasn't yet reached the damage level yet.*

That means it's possible your muscle is overworked, tight and pulling too hard on its tendon, and your tendon is just starting to complain about it.

Why is this less serious? Because there's no injury! (Not YET.)

Unfortunately, it's hard to know how long the "early stage" can last: Weeks? – Certainly… Several months? – Possibly… But years of pain would probably not still be early stage.

> *This makes it crucial to release the muscle tension as soon as you start to feel the telltale burning, soreness or outright pain (if possible) – Before it gets worse and starts injuring your tendon and the micro tearing or degeneration starts.*

ISCHEMIA

One cause of muscle and tendon pain…

Ischemia occurs when the muscle or tendon doesn't get enough blood flow to supply the level of oxygen needed for their function and to carry away their waste products

The waste products build up and start irritating the nerve endings. Less circulation (less oxygen) = more irritating waste products = PAIN.

*Ischemia is similar to what happens in our muscles when we exercise **Anaerobically**. Anaerobic means "without oxygen."*

Brief Anaerobic Exercise Pain

When we exercise at a high intensity, like weight lifting or sprinting, our muscles can't get enough oxygen to work efficiently and they produce more waste products in the process (like Lactic Acid) which irritate nerve endings causing pain

But, the difference is, the anaerobic state that occurs in your muscles from exercise is fleeting and temporary - It lasts only as long as the intense exercise Ischemia, on the other hand, is a chronic condition that can last weeks, months or years.

Of course, your tendons may already be damaged, and if the injury process has already started that would certainly cause you pain.

If your tendons have started forming tiny tears, (micro-trauma) or worse, have begun degenerating, part of your pain could still be the 'Mechanical' kind, but a lot of it would also be a different kind.

The 'Chemical' kind: This type of pain is when nerve endings are irritated by noxious chemicals irritating them rather than pressure or tension.

That's how inflammation causes pain. It produces chemical reactions, which irritate local nerve endings.

However, there's another factor you need to know about – NOT related to inflammation, which causes pain a similar way.

Imagine the feeling of your arm or leg when it has "fallen asleep" – What happened? You were sitting or lying on it in a way that cut off too much of your circulation, and it hurt like heck – Right?

Did that terrible pain have anything to do with inflammation?

Not at all – That pain was caused by a temporary lack of circulation and oxygen, and chemical changes which happened because of it.

> *It's similar to the pain you briefly experience in your muscles from exercising at a high intensity. (See sidebar.)*

The thing is, muscles and tendons can also become gradually, chronically deprived of oxygen, (from tension and restrictions) It's called 'Hypoxia' or 'Ischemia.' (See sidebar.)

Lack of oxygen can become very painful, and on the positive side, this pain can begin before there's any injury.

So, once again, even if you have intense tendon pain, it doesn't necessarily mean you have a serious problem yet. Unfortunately, there's another side to this coin:

Researchers suspect Hypoxia (oxygen deprivation) is one of the causes of degeneration (Tendinosis).

Also, keep in mind that numbness, or *decreased sensation*, is one of the early effects of a gradual decline in circulation. This means by the time you started feeling the pain, your problem may have been building for months already and you weren't able to feel it.

And, if you remember, that's one of the dangers of using braces, supports or tape: They reduce circulation – Sometimes drastically. And the first effect is often that you tend to lose feeling.

Chronic Tendon Pain Really Has Three Major Possible Causes And Degrees Of Severity

1. **Your Tennis Elbow tendon pain might be from muscular tension alone (Early Stage, Pre injury) –** As the tension building up in your muscles reaches a certain level, you start to feel tendon pain, and muscle stiffness that may come and go…

   But there's no injury yet. Although, less serious, this can be quite painful constantly for weeks or on and off for months.

2. **It *could* be from inflammation once the damage starts (Possibly 'true Tendonitis' but NOT very likely) –** If your tendon has begun tearing (most likely microscopic tears, 'Micro-Trauma') your pain could be from inflammation, which *should* be triggered as your body tries to heal.

   There would be pain from the injury whether inflammation is present or not, though. And it might be worse than in level 1, then again, it might not. Even so, it's more serious, since the injury process has started.

3. **But, unfortunately, it's more likely your pain is the result of tendon degeneration (Tendinosis) than inflammation –** Your tendon fails to recover from the microscopic tearing and deteriorates. The injury process should trigger inflammation and repair but it doesn't (for reasons researchers are still trying to understand.)

   You feel the same kinds of pain and other symptoms, possibly more intensely, but not necessarily, especially if you're still stuck in the Triple Trap; taking symptom suppressing drugs, wearing supports or braces and getting cortisone shots [which researchers have found to actually CAUSE degeneration.]

   Tendinosis can be very serious. It can lead to larger tendon tears, and increasing numbers of people are finding out they have advanced Tendinosis and are ending up having surgery.

   But sometimes Tendinosis causes little or no pain. Athletes have been known to rupture their tendons and discover only then that their tendon had been degenerating for some time beforehand—There wasn't any pain to warn them.

(We could also count tendon 'rupture' as a fourth level, in which a large tear happens in a tendon because of all the weakening from the degeneration, or from sudden trauma alone—But this is a severe injury well beyond the scope of this ebook.)

Your Pain Doesn't Tell You What's Causing It, If You Have An Injury, Or How Serious It Is

Did you notice as you read the last page that in ALL three levels of tendon pain severity, the pain can be more or less the same?…

Neither the type nor the intensity of pain you feel will necessarily give you a clear message about:

1. Whether you're at the early, pre-injury "warning" pain stage caused by muscle tension and/or lack of circulation and oxygen (Ischemia), which isn't so serious yet…

2. If your tendons are starting to form tiny tears, and the injury process has begun, which is more serious…

3. Or even whether your tendons are deteriorating, which is VERY serious…

You really can't tell from your symptoms how serious it is!

You might be pre-injury, yet be in ferocious pain – Or you might have severe degeneration, and have relatively moderate pain!

This is one of the most dangerous things about tendon problems, and why you don't want to ignore—Or suppress ANY of the warning signs.

Naturally, you're probably wondering:

> *"How in the world do I find out how severe my tendon injury is, which condition I have—Or whether I even HAVE an injury!?"*

If it happens that you can see obvious swelling (significant, visible "puffiness") around your tendons at your outer elbow then that's one of the few clear and definite signs of inflammation.

In that case you may have true Tendonitis (Or it could mean that you have a joint injury.)

If you can't clearly SEE signs of swelling, (and most tendon pain sufferers never do) chances are you're either at the pre-injury "warning" stage or you have degeneration and Tendinosis.

Unfortunately, the only way to know for certain if you have degeneration is by having an MRI.

An MRI can "look" deep into your tendons and see if they're degenerating or if there are any sizable tears.

The Cost Of Choosing Pain Relief Over Healing

As you can see, if you take drugs that curtail inflammation, use ice over and over and perhaps even succumb to the allure of a quick-fix Cortisone shot, the risk isn't ***only*** that you won't feel it if you overdo something…

The risk is that you could cause degeneration or worsen what's already in your tendon(s)—Since the standard treatments seem to do more, directly or indirectly, to suppress healing than encourage it:

- Anti-inflammatories inhibit the natural healing response to injury; ice and braces can diminish circulation and cause oxygen deprivation, (Ischemia) which may lead to degeneration…

- Cortisone has been clearly shown to *directly* CAUSE cellular death '*Necrosis*' and degeneration where it's injected…

- And the research showing that chronic tendon problems are more likely degenerative than inflammatory, although repeatedly mentioned in medical journals, seems to be largely ignored.

Doctors go on prescribing harmful inflammation drugs and giving damaging Cortisone shots.

Sadly, in the end when the damage is done, it will likely be a surgeon who points out the degeneration in your tendon(s), the MRI clearly shows.

It's no surprise to them. Surgeons see the final stages of tendon damage all the time, since degeneration, if severe enough, is seen as "cause" for surgery. (And they're often happy to oblige.)

When All Else Fails: SURGERY??

After all the pills, ice, braces, Cortisone – and now, even BOTOX shots…

After failed Physical Therapy and desperate attempts with miracle-cure gimmick remedies, IS surgery the last-resort option?

Sometimes it is. There are some instances where there's no other realistic option than to have surgery.

If, for example, you rupture a tendon – either partially or completely, which means a very large partial tear in the tendon or a total tear where it separates from the muscle or bone – there's little choice but to have the tendon surgically reattached.

And there's the question of what to do about degeneration

If the degeneration of chronic Tendinosis gets bad enough, the tendon may never be able to repair itself, and the weakening effect from that degeneration can lead to a rupture.

If significant parts of the tendon have broken down and essentially rotted, there may be no alternative but to surgically remove those "dead" sections — The question is, though…

HOW significant does the degeneration have to be before it's too late to reverse with less invasive measures?

No one knows for certain, but if it were my tendon, I would want to try EVERYTHING I possibly could before I went down that road.

> **The truth is you can't cut tissue without creating more scar tissue in the process.**

Even if the surgery successfully removes the degeneration and the tendon heals, there can be an overall shortening effect that restricts the surrounding elbow and forearm tissues and becomes a problem later—Possibly in that area, but possibly even in an adjoining area.

At least, if you do happen to have a case of *severe* Tendinosis, the degeneration can be clearly seen and accurately diagnosed beforehand.

It should be visible on an MRI, and your diagnosis will at least be based on an objective test and not just an educated guess—As Tendon-ITIS usually is.

But let's put the question of which condition you really have aside for now, though (unless you have had a scan, and you already know)…

Because, once you start to see more of the big picture, I'm confident you'll also see that the right course of action is the same regardless of which stage you're currently at…

Meaning that you need to understand and encourage healing!

Next, in Chapter Three, let's take a closer look at the deeper, underlying causes of tendon damage…

And learn about the way injured muscles and tendons are ***supposed*** to heal…

So you'll know how to *help* that healing process rather than doing things that slow or stop it…

CHAPTER THREE:

Deeper Causes

Looking Deeper At The Underlying Causes Of Tendon Pain, Injury And Breakdown, And Understanding The Natural Healing Process

How Muscle Tension Starts And Perpetuates The Vicious Cycle Of Tendon Pain And Injury

Tendon problems, whether pre-injury pain, "true" inflammatory Tendonitis or degenerative Tendinosis, don't start in the tendon – They start in the MUSCLE connected to it.

Muscle tension often builds up unnoticed, because it's so easy to miss or ignore the subtle early-warning signs, like soreness, stiffness and fatigue.

(Always remember that it's the MUSCLE that contracts and creates the tension that pulls on the tendon it's connected to, whether we're talking about Tennis Elbow or some other tendon injury.)

1. **Tension first builds up in the muscle –** The strain from overuse causes a gradual build up of muscle tension that may not be felt at first, or may be felt only in the tendon (Tendon pain from the tension *before* the injury starts)…

2. **The chronic muscle tension eventually INJURES the tendon, causing micro-tearing and further pain –** The injury may be tiny at first, but it can still pack a big punch…

   Muscle tension usually INCREASES *in reaction to the pain*…

3. **And as the cycle continues, the tissue re-tears and the tendon heals poorly—Or FAILS to heal at all –** The constant strain from muscular tension keeps the tendon from healing properly and causes more tearing.

   Eventually, this vicious cycle can result in degeneration (Tendinosis) or even a major tear (tendon strain or rupture).

Clearly, one of the keys to breaking the cycle and fully recovering from Tendonitis has to be reducing the muscle tension and preventing it from building up to a dangerous level again.

It might *seem* like a simple matter of doing a little stretching to loosen the muscle, but I bet you already know, it's not that easy!

Once the cycle is in full swing, the changes to your muscle and tendon tissues can make the task of stretching difficult to nearly impossible!

And on the next page you'll find a link to a video at Tennis Elbow Classroom, where I explain WHY this is so hard…

Here's a video for you on the 'Muscle Tension,' factor. It's the 1st video in a series on the major, underlying causes of tendon pain and injury.

I call this the '**Triple Trap Revealed series'** – Only here the 'Triple Trap' refers to the three main causes of tendon pain and injury – rather than the three biggest treatment mistakes revealed here in the ebook!

You will need the Password to view these videos

If you haven't already subscribed for your Free Class Pass, you can just click the link below, subscribe and I'll send you the password:

http://tenniselbowclassroom.com/free-tennis-elbow-videos/

The Triple Trap Revealed Videos – Part One: Muscle Tension

Part One – Muscle Tension:
http://tenniselbowclassroom.com/tennis-elbow-causes-videos/tension/

Here's Part Two on Muscle Weakness:
http://tenniselbowclassroom.com/tennis-elbow-causes-videos/weakness/

And Part Three on Muscle And Tendon Damage:
http://tenniselbowclassroom.com/tennis-elbow-causes-videos/damage/

Now, let's look at how the healing process actually works,

Starting with inflammation…

How Muscles & Tendons Are Supposed To Heal

Normally, there are three stages in the healing process of injured muscles and tendons. (And other '*Soft Tissues*')…

1. The first is inflammation, (the '*Acute Inflammatory Phase*')
2. The second is where the tear is repaired with scar tissue (called the '*Repair, Proliferation or Regeneration Phase*')…
3. And, finally, in the '*Remodeling Phase*' the repair is supposed to be is improved upon to make it stronger and often more flexible.

Keeping in mind that just because you have *pain* in your elbow tendons doesn't mean you have an *injury* yet…

If your muscle or tendon tissues do tear, even a little bit, step one in the healing process *needs to be* inflammation—Or there won't be any REPAIR—Period.

This is not a theory. It is an undeniably medical fact—*Even though you'd never know it reading consumer medical help sites*.

Naturally, it can be very hard to dismiss the theory that endless, raging inflammation is the reason WHY so many people have persistent or recurring tendon pain.

But, as you learned in Chapter Two, medical research has found no proof of this "chronic inflammation" theory. (See pages 11 & 12.)

The evidence points to the opposite: The more likely risk when tendons suffer repeated micro-trauma injuries, is that the healing process fails at some point and the tendon breaks down and degenerates (Technically Tendinosis.)

The problem, then, isn't that there's *too much* inflammation—It's more likely that there isn't *enough* to properly initiate healing.

No one knows exactly where the healing process fails in each case, but it's probably not all or nothing. A more likely theory is that it inflammation "sputters" and goes out without finishing the job.

And as ongoing or later re-injuries continue to take their toll on the tendon – the healing process fails a little worse each time, until degeneration results.

> *Obviously, if tendons healed easily, there wouldn't be millions of people caught in this horrible, vicious cycle.*

Inflammation, if successful, should lead to the creation of scar tissue in the '*Repair Phase*,' but that creates a dilemma in itself…

The Scar Tissue Issue: A Challenge In Every Injury

If you cut your finger or scrape up your knee, within days an ugly scar will form. That's the way we usually think of '*Scar Tissue*.'

Well, it's basically the same stuff you end up with when you injure a muscle or tendon. Scar tissue is what's created to repair the tear.

Unfortunately, scar tissue is never a very good repair at first. The issue is tricky, and different for muscles and tendons, though:

This is all more easily explained with the help of a whiteboard, some stretchy red tape stuff, and a demonstration – So here goes…

"How Muscles And Tendons Heal" (Probably My Best / Most Important Tendon Tutorial Video)

How Muscles And Tendons Heal:

http://tenniselbowclassroom.com/tennis-elbow-causes-videos/healing-tennis-elbow/

So, to recap (or to continue, if you skipped the video)

> **In muscles, <u>too</u> <u>much</u> scar tissue often forms gluing layers together like crazy –** This '*ADHESIVE Scar Tissue*' doesn't just affect the torn tissues—It tends to glue the surrounding, healthy tissues together as well!
>
> (As this gets worse, your muscle doesn't just get "tight" it gets increasingly *restricted* from sticky adhesions, and you lose your flexibility)…
>
> **In tendons, <u>***too***</u> <u>***little***</u> scar tissue forms & keeps re-tearing –** Because of the constant strain from muscular tension, and the tendon's poor blood supply, the tendon is often unable to repair itself fast enough…
>
> And what little scar tissue manages to form (in attempt to repair it) keeps tearing—If the tendon keeps breaking down without healing you develop Tendinosis.

In BOTH injured muscles AND tendons the last stage of healing, which <u>*should*</u> gradually fix all of this often stalls…

The Crucial—But Often Overlooked Final Phase Of The Muscle And Tendon Healing Process

First comes inflammation, then repair, (in the form of scar tissue) followed by remodeling.

The '*Remodeling Phase'* is when the crude, weak and messy initial scar tissue is reshaped to create a STRONGER tendon repair, and a more FLEXIBLE muscle repair.

Only this critical phase often doesn't get completed (even in injuries that *supposedly* heal well) — the muscle remains tight and inflexible and the tendon stays weak and vulnerable to re-injury.

This is the most ignored part of the healing process—Yet it's the part that's MOST in need of help.

If you want strong, well-healed muscles and tendons, one of the keys is that your treatment MUST include therapy that helps this process (NOT interferes with it, as you recall braces and splints do!)

What about exercise? Yes, it can help with remodeling—But…

Why The Timing Of Exercise Is Essential In Muscle & Tendon Injury Rehab

Strength-training exercises are usually prescribed as a part of the therapy to rehabilitate injured muscles and tendons, and rightly so.

Exercise is essential to strengthen muscles and tendons weakened by injury, and it can definitely help with the remodeling process, the crucial, final stage of healing…

IF the timing is right.

But, whether done in a P.T. clinic under supervision or on ones own at the gym, therapeutic exercise often becomes an exercise in futility, because the timing is often wrong.

All too often, the increased load on the muscle or tendon from the resistance (the weight) triggers new tearing in the tissue—Or re-tearing of the scar tissue, causing further injury and pain.

Perhaps you've been avoiding exercise altogether fearing this.

But these frustrating re-injuries with their long setbacks are avoidable.

If, FIRST, the muscle is released from its chronic tension and built-up adhesions (layers stuck together, often from scar tissue)…

And the tendon is treated to stimulate repair and remodeling, the muscle and tendon will then be much better prepared for exercise, at which point it can and definitely should be introduced.

> *What about the other Modalities typically used along with exercise in Physical Therapy, like ultrasound, electrical stimulation, and icing?*

Same problem: These therapies don't do a thing about the Scar Tissue Issue or help release adhesions in muscles in any way.

What muscles need is to be released from their chronic tension and adhesions—Not frozen, injected, or zapped with electricity or ultrasound.

And I'll go into detail about what I believe is the best therapy for treating tendons and releasing tension and adhesions from muscles in Chapter Four.

First, let's go over the problem from the beginning, and compare the standard, most-often recommended approach, to what I propose makes more sense from a healing-priority focus…

Summing Up And Comparing Plan A: The Standard Pain-Relief Approach – With Plan B: The Healing- And-Repair Focused Approach

Tension and adhesions build up in the muscle from overuse, repetitive motions, and compensating for other weak muscles

A. The standard approach: Typically, little is done to treat the muscle, except for exercises, which do little to relieve chronic tension and nothing at all to release adhesions.

B. **A better way: The muscle should be released from its chronic tension and adhesions with hand's-on therapy.**

Injury – The tendon is injured by the excessive muscle tension, usually by the gradual accumulation of tiny tears (micro trauma)…

Inflammation – (1st stage of healing) should be triggered in response to the injury, but it might not, or it might "sputter out."

A. The standard approach: Drugs are taken and Cortisone shots are given to suppress this natural and necessary healing response to the injury, which may SLOW down the healing process and encourage degeneration.

B. **A better way: Inflammation should be allowed to do its job (unless there's massive swelling) And it may be necessary to physically friction the tendon by hand to stimulate circulation and actually get inflammation going in the first place if it failed!**

Repair – (2nd stage of healing) Weak, initial scar tissue (new collagen) should form to repair the injury,

A. The standard approach: Rest and immobilization of the area with braces, splits or tape is thought to help healing and repair, but this can decrease circulation and prevent healing

   Tendons have poor circulation as it is. The risk is still that inflammation will fail or sputter out leaving little or no repair—And the tendon will degenerate instead.

B. **A better way: I believe gentle movement and physical 'frictioning' of the tendon by hand is essential to stimulate circulation and even inflammation, to ensure the repair phase of healing finishes.**

Remodeling – (3rd stage of healing) should help the weak, initial scar tissue (new collagen) become better and stronger

A. The standard approach: Braces or splints are often worn, which can prevent the movement necessary for remodeling, leaving the area weak and vulnerable to re-injury

   The constriction and lack of mobility can also cause a lot of adhesions (layers gluing together) in the muscle and around the tendon, further weakening and reducing flexibility.

   Strength-training exercise is often used in physical therapy, which can help with remodeling, but it's often a painful struggle.

   Since inflammation has usually been suppressed with drugs and ice, little if any repair has happened and the muscles and tendons aren't ready for remodeling.

   What little scar tissue/ new collagen has managed to form in the repair stage (if any) can't handle the resistance of exercise and the stress too easily causes further injury.

B. **A better way: Direct, hand's-on therapy (I believe a therapy called 'Soft Tissue Release' is best) to release adhesions in muscles and speed the remodeling stage of tendon healing. As remodeling improves the repair, it prepares the tendon for resistance exercise which will make it stronger still.**

Hopefully, by now your choice is becoming clear: You can make pain relief your priority and suppress your symptoms in countless ways—Or you can make healing your priority.

It really has to be one or the other: Plan A or B. And you can't hedge your bet and try do a little of each. If you suppress your symptoms you may sacrifice your ability to fully heal.

Conversely, if you prioritize your healing, you may have to put up with some pain for a while longer.

The difference, though, is once you've fully healed your tendon the pain will resolve on its own—And you'll know that's why.

Now, there's still another "layer" to the problem, because it seldom begins and ends with just the one muscle and its painful tendon. There's almost always a larger imbalance…

The rest of the chapter is about dealing with that larger imbalance, but you might want to just skim it and come back to it later.

Because, the larger imbalance isn't something you want to try and address early on. You only want to take it on after your tendon has healed or is at least well on its way to recovery.

The Problem Isn't Just In Your Tendon, Or Even The Muscle Connecting To It: The Three Levels You Need To Treat For A Lasting Recovery

Just as there are three degrees of severity to the problem causing the tendon pain, I believe there are three levels to the problem:

1. **THE MICRO Level: The Tendon Itself –** The microscopic damage in the tendon itself (likely degeneration, according to researchers) Or pre-injury pain if damage hasn't begun,
2. **THE LOCAL Level: The Attached Muscle –** The tension in the muscle attached to the tendon, exerting its pull. And…
3. **THE MACRO Level: The Larger Imbalance –** The whole-body imbalance stressing that particular muscle and its tendon (The 'biomechanical' aspect.)

The long-term solution to tendon problems needs to include not only the painful tendon and the muscle connected to it, but the larger pattern which stresses that muscle.

Naturally, since most, if not all of the symptoms show up in the tendon, it's easy to point to, and to become overly focused on – at the expense of the big picture – (Which is one of the reasons why symptomatic remedies and most treatments focused solely on the tendon fail in the long run.)

We've already taken a microscopic view of what goes wrong in the tendon, and looked at the muscle connected to it, so, now, let's pull back and look at the big picture; the larger imbalance where I believe the problem quietly begins.

Larger Imbalances That Overload Individual Muscles And Lead To Tendon Injuries

If your problem is more work related, your larger imbalance may include how you position and use your body less than optimally as you work: You might need to consider your 'Ergonomics.'

If your problem is sports related, the subjects of proper form and technique are essential.

(Perhaps both areas if, for instance, your problem happens to be Tennis Elbow, which could be partly caused by poor backhand form on the court and aggravated by poor ergonomics at your desk.)

There is, however, already a wealth of published information about these topics, easily available online and often free.

Instead of repeating any of that here, we're going to focus on another aspect that's usually lacking from the discussion:

How the muscular system adapts to long-term stresses.

The essence being that the muscular system (including tendons) can be weakened and ultimately damaged in tiny increments over a long period of time, just as surely as by sudden, forceful trauma.

Compensatory Tension And The Havoc It Causes

In working with hundreds of tendon cases over the years, one thing I always seem to find is that the muscle attached to the painful, injured tendon is compensating for other muscles.

In other words, the muscle that connects to and pulls on the injured tendon is being called upon to work overtime and make up for other muscles – to compensate for their weaknesses.

In Tennis Elbow cases, for instance, I find the wrist/forearm muscles in question are almost always compensating for weak muscles in the shoulder – often including the Rotator Cuff Muscles.

And this is common whether the person developed Tennis Elbow playing tennis, playing the cello or working at their computer.

(With foot, ankle and knee Tendinopathies, the weakness is usually in the hip, but the principle is the same.)

And taking it one step further, whether this weakness is in the upper or lower body, there is usually a core-stability issue, meaning the back, abdominal, pevic and other muscles of the body's center are weak and imbalanced.

Here's what the full pattern often looks like:

1. **Hip/Shoulder Weakness** compounded by **Core Instability:** Lack of balanced muscular support of the pelvic, spinal and abdominal areas, along with weakness in one or more of the larger muscles of the shoulder or hip, which end up being compensated for by muscle(s) down the arm or leg,

   Which leads to…

2. **Muscle Overload:** The overworked muscle compensating for these weaknesses becomes perpetually tight,

   Which eventually causes…

3. **Tendon pain / injury / degeneration:** The constantly tight, overloaded, compensating muscle eventually stresses its tendon to the point of injury.

Does this mean that for a person with a wrist or finger tendon injury, the problem ALL originates from their weak shoulder and abdominal muscles!?

Absolutely not. The point is simply there is always a larger pattern.

As I'm sure you're starting to recognize,

> **Your tendon pain or injury is merely the last link in a long chain of cause and effect** – It's just that the pattern can be very hard to see, because it probably caused little or no symptoms as your weaknesses accumulated, you slowly adapted and your compensations slowly increased.

And, even now, that underlying pattern may not cause many symptoms other than your tendon pain!

You *might* be having some mild back pain and stiffness caused by your lack of core stability, and it's possible you're noticing some periodic soreness in your weaker hip or shoulder…

But, chances are, these symptoms of your larger imbalance pale in comparison to the screaming pain in your tendon.

The challenge you're facing is: How will you prevent your tendon troubles from returning – Unless you decipher and correct the larger pattern stressing that one muscle and its painful tendon?

Why Most Tendon Injuries Are In The Arms And Legs

As we lose support and stability in our core, and get weaker in our hips and shoulders, we tend to compensate with and overuse muscles in our extremities (arms and legs) to gain leverage.

It's nearly universal that if the symptom tendon is in the elbow or wrist area, there is a significant weakness in that shoulder. I can practically guarantee you this.

And if the symptom tendon is in the foot/ankle or knee areas, there is likely a significant weakness in that hip.

As a muscle experiences fatigue or strain, your brain adapts to your continued demands on the overloaded, weakened muscle by shifting some of the load to other muscles in compensation.

The insidious thing about the compensation process:

- Although an injury to a muscle will certainly set in motion a compensation – It doesn't necessarily take an injury – All it takes is a gradual weakening or a fatiguing of a muscle for your brain to adapt by compensating with other muscles…
- And once your brain makes this adaptation, it will tend to continue with it automatically and habitually – Even if it's no longer really necessary – Making it very difficult to change.

Here's the 2nd Triple Trap Revealed video again, where I talk about how we even tend to favor and overuse certain PARTS of muscles, and how that contributes to tendon pain and injury.

The Triple Trap Revealed Videos – Part Two: Muscle Weakness

http://tenniselbowclassroom.com/tennis-elbow-causes-videos/weakness/

What's the answer to all this favoring sides and muscles and parts of muscles?… What's the solution to core instability, and hip and shoulder weaknesses – And all the compensations?

If you guessed strength training exercise, you're certainly right.

But the timing is critical, in order to avoid re-injury setbacks, as we talked about earlier—Especially when it comes to the painful, injured muscle and tendon.

In Chapter Four, we'll cover the kind of exercise plan you need to build strength in a way that doesn't overly stress the muscle and tendon you've been struggling with.

CHAPTER FOUR:

Sensible Solutions

The Sensible, Soft Tissue Therapy, And Core-Strengthening Solution To Tendon Pain And Injury—Whether Tendonitis Or Tendinosis

Speeding Up Your Healing And Making A Full Recovery By Treating The Three Levels Of The Problem—Not Your Tendon Symptoms

If you're looking for the fastest recovery from your tendon problem – Without giving up your work or your favorite sport…

And you want to regain your strength and flexibility as quickly as possible – Without re-injuries and exasperating flare-ups…

Focus on treating the three levels of your problem and helping your muscles and tendons heal (now that you know the truth about The Triple Trap and the dangers of chasing your symptoms.)

Treating all levels of the problem means you need to:

1. **Treat The MICRO Level: The Tendon –** The damage to your tendon itself (most likely microscopic tearing and degeneration),

2. **Treat The LOCAL Level: The muscle –** The tension and likely adhesive scar tissue in the muscle attached to your tendon, and…

3. **Treat The MACRO Level: The Larger Imbalance –** The larger, whole-body 'Biomechanical' imbalance overloading that muscle and its tendon.

Treating Your Painful/Injured Tendon

Now that we've shifted perspective away from the "Inflammation/ Tendonitis" theory and can see the evidence supports the idea that chronic tendon problems are usually degenerative in nature, (Tendinosis) what's the best way to treat the damaged tendon?

Assuming your tendon is deteriorating (or knowing it is if you've had an MRI showing degeneration/Tendinosis) – What do you do?

Keeping in mind that the tendon isn't healing and is likely breaking down, the goal is to stimulate a healing response and ensure that the healing continues and results in a strong repair.

If you're fortunate that your tendon isn't yet degenerating, (without an MRI you really don't know) but there has been some microtrauma damage your body is struggling to repair with "sputtering" bouts of inflammation, the goal is the same.

I'm convinced the fastest, most efficient way to do that is through hands-on manipulation – Through the "lost art" of Manual Therapy (lost for the most part from conventional Physical Therapy, anyway.)

I use a combination of two methods: '**Pin And Stretch**' and '**Cross-Fiber Frictioning**,' both of which utilize tension and friction to:

- **ü** Stimulate healing and repair by increasing the local blood flow to the tendon (Tendons have inherently poor circulation),

- **ü** Release adhesions that have formed around the tendon, binding it to surrounding tissues and restricting it,

- **ü** And stimulate the reshaping of the collagen fibers in the tendon (assisting the vital Remodeling Phase of healing)

I'm convinced precise friction and controlled tension applied by hand is the key to reversing the stagnation and degeneration, by helping bring more blood to the area and physically re-aligning the disorganized collagen (the protean the tendon is largely made of.)

Since the goal isn't short-term pain relief, but to stimulate a healing response, and support the process throughout all three stages of soft tissue healing—That may mean stimulating some inflammation!

Because, ironically, the first stage of healing is inflammation, and that means the tendon may feel temporarily more painful as more blood flows to the tendon and inflammation does its job.

> ***Remember there can be no complete healing of any injured tissue if there isn't first the inflammation stage, then the repair stage, followed by the remodeling stage.

When used correctly and consistently, these therapies are the most powerful way to stimulate and assist the remodeling stage, and help it finish when it's stuck.

Treating The Muscle Connected To Your Injured Tendon

Muscles and tendons are really two parts of the same unit; they're inseparable, which means it's impossible to successfully treat a tendon problem without treating its muscle.

And, since it's the MUSCLE that contracts and creates the tension that pulls on the tendon it's connected to, it's often the muscle's more active (and complex) role that needs to be emphasized.

As you can see, part of the solution has to be to release any persistent muscle tension, so it stops hurting its tendon.

And, the other part of the solution is in correcting the larger pattern which overuses and stresses that one muscle. That's where the biggest key to permanent recovery lies—Once the cycle is broken and healing is well under way.

Once again, to refresh:

1. Tension first builds up in the muscle,

2. The chronic muscle tension injures the tendon causing micro-trauma (microscopic tearing) and pain, and also keeps the tendon from healing properly,

3. And as the cycle continues, the tissue re-tears and heals poorly—Or fails to heal at all and the tendon degenerates

The key in the muscle itself is that muscle tension has a way of becoming self perpetuating and chronic, once adhesions start forming and gluing the muscle's layers together.

These adhesions can form somewhat faster as scar tissue from micro-trauma, or more slowly, just from having too much tension and too little circulation and oxygen for too long in the muscle.

Either way, adhesions cause a "passive" form of shortening in the muscle, as layers are compacted and stick together—Which is different from active tension generated by muscular contraction.

It's an important distinction, because:

- You can relieve some of your active muscle tension just by stretching – This tension responds like a rubber band to a stretch...

- **But the adhesions in your muscles are more like Velcro and are much harder to free up**—They can be released when on the milder side, but they tend to resist stretching, and the more you have the harder it gets.

Therefore, it's not so much the active tension, but the adhesions that are the biggest challenge in the muscle – which is why the right kind of therapy is so necessary and helpful at this point …

And the 'Pin And Stretch' technique is the fastest way I know of to release these adhesions and restore a muscle's normal length.

The way it works, is that pressure is applied by hand to your muscle and the muscle is encouraged to stretch at the same time.

As this is repeated, any fibers bound together either within a muscle or adhering to surrounding tissues, are gently freed up.

Pin And Stretch also encourages the remodeling process by applying just the right amount of "constructive stress" to the scar tissue in your muscle or tendon – using finger or thumb pressure – while a stretch is simultaneously applied to the muscle.

And, Finally, Treating The Larger Muscular Imbalance

Now it's time to look at the larger pattern, because the solution to a full, lasting recovery usually has to include more than the muscle connected to the tendon.

Once the cycle is broken at the local, muscle/tendon level, the larger pattern stressing that muscle needs to be corrected – (the reason the muscle is overworked, and chronically tense in the first place.)

The largest factor in the strain that overloads the muscle and injures its tendon varies a lot depending on the activity in question, though.

Sometimes the strain is more "local" and the larger pattern is smaller.

If you happen to have a wrist or finger tendon injury related to computer work, for instance, most of the strain might be from a build up of tension and adhesions in the muscles of the forearm as those muscles performed the actions of typing—Without enough breaks and without ever being properly stretched.

Your larger imbalance might be mostly a matter of poor ergonomics, and once you've had treatment for your muscles and tendons and corrected your workstation deficiencies you might not need to address shoulder weaknesses or core instability issues (then again, you might still need to do some strengthening work there).

If, instead, you have Tennis Elbow from playing tennis, however, I can almost guarantee you have a significant imbalance involving core AND shoulder issues. (I treat A LOT of Tennis enthusiasts.)

Although you probably have a great deal of local tension and fatigue in your forearm muscles, the largest aspect of the strain on those muscles probably comes from the compensating they're doing for the core and shoulder weaknesses you likely have.

Although it's often the larger muscular imbalance that ultimately leads to a tendon injury, I think the priority usually has to be treating the micro and local levels first (the injured tendon and it's muscle) before trying to correct the larger imbalance.

Otherwise, you tend to keep running into the problem of aggravating the symptoms or even causing further injury, as we talked about with the issue of trying to do strength-training exercises too early...

Because, the only way to correct your larger imbalance, and keep it from slipping back into the pattern that led to your tendon problem in the first place, is through a program of very specific exercise.

Strengthening By 'Working Outward'—Not Just Working Out

- The idea is to be very *core focused* to begin with, which is safer on the muscles and tendons of your shoulder, arm and forearm…
- As your core strength improves and you have a better "foundation" your exercise can include more shoulder work…
- And then more arm and forearm work, building on the foundation of core and shoulder strength you've established.

My best recommendation would be to do some private lesson training sessions with a good Pilates Instructor at a studio that has Pilates equipment. The cost is relatively high, but well worth it.

The next best thing, to start your core strengthening, anyway, would be a Pilates Mat Class, which costs a lot less.

Once again, I want to emphasize the idea of not just working out—But of "working outward," as in working to strengthen your core first, before attempting shoulder – and especially arm and forearm exercise.

Cardiovascular exercise, if you can do it, is a very good idea, whether running, brisk walking or simply pedaling a stationary bike.

It keeps your metabolism up, your lymph system moving, and your circulation going—which should increase your oxygen levels. All of which are important to healing no matter where your injury is.

Let Me Show You How To Treat Your Muscles & Tendons Yourself With My Advanced Methods

My name is Allen Willette, and I'm a Neuromuscular Therapist in the San Francisco Bay Area who's been helping Tennis Elbow sufferers overcome their injuries for several years.

> **(*If you happen to live in the Marin County / S. F. Bay Area I may be able to help you directly, and I'll let you know how to contact me on the last page of the ebook*.)**

But the reason I created **Tennis Elbow Classroom** was to try and help you—Even if you live on the other side of the country.

If this Ebook and the Tendon Tutorial Videos have made sense to you, you're naturally starting to understand that comprehensive treatment for Tennis Elbow simply has to include hands-on therapy for your muscles and tendons.

I will admit there are dozens if not hundreds of ways of treating and manipulating muscles and tendons, ranging from basic massage to highly-specialized methods.

But, having focused on treating tendon problems for over seven years – Tennis Elbow in particular – I feel qualified to say there are three techniques that stand out. (Two of which, are absolutely indispensable.)

These three methods can efficiently address both the muscle tension and adhesion problem – and the 'Scar Tissue Issue,' which together cause Tennis Elbow and keep it from healing properly.

They can break the cycle by:

- **Relieving the MUSCULAR strain on your tendon(s) –** By releasing the chronic muscle tension and adhesive scar tissue that CAUSED and perpetuates the problem,

- **And helping make your tendon STRONGER –** By stimulating the forming and reshaping of the collagen fibers in your tendon

And I will teach you how to use these powerful methods to treat your Tennis Elbow yourself in Tennis Elbow Classroom.

See next page for overview…

Here's What You Get With Your Full-Access Gold Membership To Tennis Elbow Classroom:

Your Anatomy Class

This is your introductory lesson to help you familiarize yourself with the muscles and tendons involved in Tennis Elbow you'll be working on through the rest of the program.

Your Therapy Class

The heart of the program where I show you how to use the ***three*** powerful therapy techniques on your own muscles and tendons

(These are the same methods I've been using for the past five years to treat Tennis Elbow here in my clinic with great success.)

Your Stretching Class

This is your lesson on the ***three*** simple, but essential stretches you need to do when you have Tennis Elbow (and to prevent it from recurring – once you've overcome it)

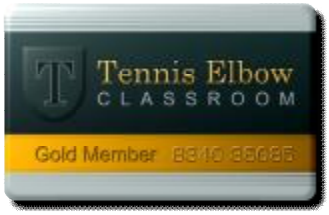
Unfortunately, most Tennis Elbow sufferers are not stretching correctly. You'll learn the right way—The SAFE way, here.

Your Exercise Class

And, finally, no Tennis Elbow recovery program would be complete without exercises to strengthen the muscles involved, as well as the Tendons themselves.

Learn the ***three*** most important exercises for Tennis Elbow – And discover how you can use common household objects to do those exercises with, for the most part.

Get your Gold Membership and get started now:



http://tenniselbowclassroom.com/

And If You Happen To Live In The Marin County / San Francisco Bay Area…

If my approach sounds right for you, and you're interested in being treated by me personally, I'm happy to talk with you.

If you haven't already joined Tennis Elbow Classroom as a Gold Member, I encourage you to do that first, though. Here's why…

1- You'll see my approach "live" and get a better understanding of it,
2- You'll already have access to the *homework* part of your therapy,
3- And, you'll already be one step closer to your full recovery.

For all the details on the Full-Access Gold Membership to Tennis Elbow Classroom go to: **http://tenniselbowclassroom.com/**

And, if you'd like to meet for a consultation, just click the link below or call (415) 388-1001.

When we meet for our consult, you can tell me about your problem and ask me questions, and I will evaluate your muscles and tendons. And I'll let you know at that point if I think I can help.

Request a consultation at my office in Corte Madera, CA here:

http://bodyinbalance.com/contact/make-appointment/

To your fast, full and permanent recovery,

Allen Willette,
Neuromuscular Therapist /
Tennis Elbow Tutor

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