



# Training Myths!

## Stretching SA will set you straight on some exercise urban legends...

Sometimes in both amateur and professional coaching, athletes will rather rely on information obtained from each other's own experiences. Our Australian colleagues will call this "Aboriginal Coaching" – That is information and advice that is shared by the campfire from one warrior to another. And, rightfully said, there is nothing wrong with this, BUT this is the case for as long as the information is accurate. And that's the problem, most of these conventional wisdoms tend to be wrong. Even worse sometimes, this misinformation has been around so long sometimes that it has some credibility as well!! It is said: "what you don't know can't hurt you" we disagree. IT CAN. We would like to set you straight on twelve myths.

### **Muscles recover more quickly if I sit in a tub of hot water, right?**

**WRONG!!**

Although we will not deny that it feels wonderful to sink into a hot bath after a hard day's workout on a cold winter's day, we have to tell you that "feeling wonderful" is about the limit of benefit. External heat is comforting and relaxing, but, when we are facilitating muscle recovery, we need a little more. When your muscles have been active, they already have been heated up. Cold reduces swelling and initially restricts blood flow, providing a natural compress on the microscopic tears in the tissue that are leaking blood into the traumatized area. Shortly, the body will recruit new blood to the cold area (notice it turns a little red?) that flushes out metabolic wastes and lactic acid-byproducts of heavy muscle activity.

If you have a localized "sore spot", you can treat it with a homemade ice pack. We recommend that you fill a paper cup with hot water and keep it in the freezer until it is ice. Then you simply peel down the rim to expose the surface of the ice. The paper cup,

or what's left of, serves as a little holder to keep your fingers warm and dry. Gently rub or swirl the ice surface on your injured or traumatized body part. Keep it moving and apply as much pressure as you can stand. The first minute, it will feel uncomfortable, but this will ease. Treat yourself for 5-10 minutes. Watch your skin to make certain that it doesn't turn white, signaling frostbite. When you are finished, return the cup to the freezer for next time. If the area you would like to treat is a little larger, a bag of frozen peas is a wonderfully pliable ice pack that can be refrozen frequently and reused for a long time. For a full-scale treatment (such as for post marathon soreness), we fill a bathtub with cold water and add 5-10 bags of ice. Then we sink our entire athlete into the water (the screaming and cursing subside within a few minutes, and we always get an apology and expression of gratitude the next morning)

Oh, and by the way, please do not rely on topical creams and ointments either to help you "warm up" before a workout or help you recover after one. They feel warm and tingly, but they are not going to help a muscle recover. If anything, they will give you the delusion that you have done something good for yourself and will delay action that could actually be more helpful.

**If I am constantly getting injured on one side, that must mean that I have a leg length discrepancy, right?**

**WRONG!!**

We hear this one all the time, and we are glad to set the record straight! Significant leg discrepancies are not common. Frequently, an athlete will be evaluated by lying flat on a table with an observer at the foot of the table. The observer takes both of the athlete's feet

in his or her hands, presses the ankles together, "eyeballs" the soles of the feet, and finally declares, "YEP! Your left anklebone is a full 2 cm below your right one buddy! Your left leg is definitely longer." Then the athlete goes out and gets a lift for the right shoe so that both legs can be even. Well we have to tell you that this apparent leg length discrepancy probably is caused NOT by a leg bone that is longer, but by pure imbalance in the muscles and tendons of the pelvis, the foundation of the body. And the source of this imbalance might surprise you. A tight hamstring on one side can jack the other side of the pelvis up. A tight iliotibial band on one side could jack the other side of the pelvis up. It's common in people who do one thing all the time, such as a runner who sprints around a track in one direction day after day. Even tennis players who develop their upper bodies on one side to swing a racket can experience imbalance in the muscles that affect the pelvis. It's true. When the pelvis – hip and trunk – are free floating and flexible, the leg length discrepancy may mysteriously disappear. (Then all an athlete need to do is figure out how to handle the damage done by inserting the lift in the right shoe, creating a true catastrophic imbalance for which the body has had to compensate by doing all sorts of ugly things)

**Resting or immobilizing an exhausted or injured muscle will facilitate healing, right?**

**WRONG!!**

Conventional wisdom used to be that we RICE an injury, right? You know. Rest. Ice. Compression. And elevation. But, we have found that immobilizing an injury – unless it is fractured or shredded – shuts the muscle down and restricts blood flow. And, frankly, opening a muscle or joint up and encouraging blood flow to oxygenate the area and flush out metabolic waste from injury seems a whole lot more intelligent to us. Additionally, immobilizing a muscle causes it – and everything around it – to atrophy. And the body instantly will launch a series of compensations to make up for the fact that something is not working properly or at all, which will cause more imbalances and instabilities and greater risk of more injury elsewhere.

So here's our opinion. The best way to treat an injury is MICE. Move it. Ice it. Compress it when you're on periodic breaks from your rehab program. And Elevate it (Preferably with your stretch rope, during long and frequent routines.)

Now that we've said this, let us add that you must be VERY certain that you're not dealing with catastrophic injury such as a fracture. Get a good diagnosis from a physician if you're in doubt. And move carefully and gently. Even the tiniest range of motion is extremely helpful.

**I must always warm up before I stretch, right?**

**WRONG!!**

Stretching IS warming up. As you work your muscles, you are pumping blood to them and firing them, one at a time. As each set of stretches progresses, you gradually increase your range of motion with gentle assistance at the end of each stretch. Each subsequent stretch is a little more elongated, which means the muscle on top of the stretching muscle is firing a little harder. Everything is becoming more efficient and working more smoothly. This is why we recommend an Active-Isolated stretch routine before you begin a workout.

Following a workout, an identical routine can help flush metabolic wastes such as lactic acid that accumulates in a stressed muscle. The gentle pumping action of the routine sends blood to parts of the body that have worked hard. Healing and recovery begin and are accelerated. Range of motion is restored in areas that have been tracked in very rigid and specific patterns – Like running. In this manner, stretching can be used as a 'cool down' routine.

**I should hold a stretch for ten seconds to three minutes in order for it to do me any good, right?**

**WRONG!!**

Muscles can elongate, when they're healthy, up to 1.6 times their length, but they generally don't like to do that. If you elongate a muscle too quickly or too far, it automatically and ballistically recoils to protect itself from ripping. This compensation is called "Myotatic reflex" and it kicks in at three seconds. Imagine yourself the last time you tried to do splits. Unless you are usually flexible, it went something like this. You leapt out of the chair and stood straight up on the floor. You slid your right foot forward and your left foot backward until you felt a "tug" on the insides of your thighs. You either pulled up immediately or buckled your knees and dropped to the floor to get that pressure of your hips. You drew your knees up to relax the tension. You were experiencing the "Myotatic reflex": a load and clear message that you were going to rip in the next second and you needed to let go NOW.

The trick in progressing in flexibility is to stretch a muscle, but not allow it time to engage the "Myotatic reflex" you work quickly and gently. The muscle you are stretching is totally relaxed because the muscle on top of it is doing all the work. The stretching muscle never has time to fire. Because it is stretched, held for 2 seconds, and released, it doesn't need to protect itself. The "Myotatic reflex" is never engaged.

**Drink when I am thirsty, right?**

**WRONG!!**

If you waited to drink until you feel thirsty, it's too late. Thirst is a symptom of dehydration. Dehydration decreases plasma volume. With less blood getting to the skin, the systems that control heat dissipation fail. Once this happens, an athlete overheats even more quickly. Performance levels drop. And things can get dangerous. Symptoms of dehydration include muscle cramping, excessive sweating, dark urine or infrequent urination, weakness, nausea, rapid heart rate, headache, light-headedness, increased body core temperature, heat exhaustion, and heat stroke. In extreme cases, the consequences of dehydration can be fatal. It makes no difference if you are working out in cold or hot weather, inside or outside, in arid or humid climates, on a ski slope or in a swimming pool – hydration is vitally important.

You should plan to hydrate before, during and after your workout. Plain water is good, but some athletes prefer sports drinks that hydrate as well as replace electrolyte lost in sweating and carbohydrates such as glucose, sucrose, fructose and glucose polymers. Although it is worth to mention that with a proper and balanced diet, expensive electrolyte drinks is not an absolute necessity, and a lot of times it is even a waste of money. Some experts believe it is best to drink water before your workout to hydrate you, and sports drinks later during your workout when your body needs the carbohydrates and is prepared to handle and use the sugars you're taking in. There's a wide variety of sugar

drinks on the market, but no matter what you drink, if you drink it cold, it will absorb more quickly in your body.

**If muscles are flexible around the joint, I could get injured. I should be tight to perform better, right?**

**WRONG!!**

It's easy to see where this attitude comes from. Even we have said to an injured athlete "you have weak knees. You need to get stronger." It is logical to assume if you build a tight, bulky musculature, you can protect a joint, but its protection is not that simple. There is a BIG difference between a strong muscle and a tight one. In fact, a tight muscle can be very weak and offer virtually no protection for a joint. A tight muscle is an inefficient muscle. It cannot elongate and then reflex quickly to make a joint move. It takes too much energy to move it. It doesn't fire quickly on command and you have to recruit extra muscles to assist it. It's prone to injury. You can't move it fast enough or position yourself well enough to avoid trauma or overuse injuries. It racks rigidly and has limited range of movement. And when a moveable force meets an immovable object, something's got to give – whether or not it wants to. Power is the combination of strength and flexibility. "Tightness" doesn't help. In fact, it hurts

**Injuries are inevitable, right?**

**WRONG!!**

**INJURY IS A MISTAKE IN YOUR TRAINING PROGRAM.** (David Martin, USA Olympic coach)

How true can that be? That's what we all think when we are already injured. Nobody likes the blame, no athlete likes to think that his or her injury could be their own mistake. Well, trained athletes should never get hurt (Unless there's an accident). Injury is entirely avoidable if you properly apply knowledge and basic principles. We urge our athletes to take charge, to train and compete with intelligence, and to be always in pursuit of better nutrition, better rest, and better training methods. Injuries rarely "just happen."

Sadly, when we look back over events that led to injury we can find clear indicators that are forthcoming. More sadly, there are usually more than several indicators. We coach our athletes to pay attention to subtle and not-subtle "warning signs": Tightness, soreness, recovery that seems to be sluggish, cramping, sharp little pains, aching, fatigue, sleeplessness, changes in attitude, feeling "off", etc.

There are many and they vary with each circumstance, so we encourage a daily "inventory." Suspicious symptoms are elevated immediately and completely... and adjustments are made to prevent injury.

Also, athletes are wise to remember that training and competition aren't the only ways to sustain an injury. "Life" can be a contact sport and an injury unrelated to your sport can shut you down.

**The older I get, the less flexible I'll become, right?**

**WRONG!!**

As you grow older, there is no need to grunt and groan when you get out of the chair or shuffle when you walk or turn your whole body to look at what's beside you. Although, there is an acknowledged biological decrease in natural flexibility as a person ages, there is increasing evidence that the decreases in physical function we commonly associate with aging are not entirely related to advanced years, but rather to sedentary lifestyles.

When aging is accompanied by increasingly sedentary lifestyles, muscle atrophy is almost always the result. And once this happens, it is difficult to regain that muscle mass with strength training and regain flexibility with stretching. But it can be done.

There are compelling reasons to so. Improved nutrition and medical support make it possible for us to live longer, so it is increasingly important for us to take care of our bodies in which we are going to live for a long time. Researchers tell us that the decline in flexibility means declines in stability, balance and mobility – all contributing to falls which is deadly in the elderly? Equally deadly is the restriction of spinal mobility, which causes compression with severe impediments in cardiovascular functionality. The Axiom "Move it or loose it!" may mean your life – literally.

Apparently it is never too late to start with aerobic, strength, and flexibility training. Researchers have found that programmed, regular exercise (3 days a week for 20-30min. per session) significantly improves all three in both men and woman. To improve the quality of our time on earth, working out is very important.

**To put support devices in the shoe will correct flat feet and fallen arches, right?**

**WRONG!!**

Walking and running place impressive demands on your foot, no question about it. But your foot is remarkable in its shock absorbing abilities. If you are like most of us as you walk or run, when you put your foot down on the surface, your rear foot rolls to the inside. As the full impact of your foot strike spreads throughout your foot, your shin rotates internally, taking your foot with it, converting your foot to a shock absorber. The subtalar (the bone on top of your foot where the ankle joins the foot) joint converts the vertical force to longitudinal force, spreading the shock through your entire foot. You adjust the torque to the surface on which you're walking or running and then, continuing forward motion, instantaneously rotate you foot to the outside, where your foot returns to

being rigid, to allow you to lift off again. It's a wonderful miraculous process. In other words, the arch of your foot is like a spring or shock absorber. It takes the "hit" from your foot plant and keeps it from jarring your knee or hip. If you put a support in your shoe, you are guaranteeing that your "spring" has nowhere to go and your shock absorber can't absorb shock. It will feel good temporarily by relieving tension in your foot and leg, but it will accomplish nothing. In fact, it will fool you and keep you from looking for a solution to your problem.

It's far more intelligent to try and strengthen your arch so that it will work properly. We recommend 4-6 weeks of progressive strength training along with your Active-Isolating stretching program. Stand on phone book with your feet forward, your toes and the balls of your feet on the book, and your heels suspended over the edge. Brace yourself so you won't slip. Maintaining complete control, stand up on your toes and then slowly lower your heels toward the floor until you feel a gentle pull. Return to the tiptoe position and repeat ten times. Turn your toes toward each other – pigeon toe style – and repeat exercise. Turn your toes out and repeat the exercise.

For your next strengthening exercise you will need a chair or hard surface, a sock and a can of beans. Take a long tube-style sock and put 375g can of beans inside, in the toe. Take your shoes off. Sit on the edge of a sturdy chair and lift one knee until your bare foot is on the seat, tucked up with your heel against your buttock. Take the sock with the beans in the toe and wrap or tie it around your foot, with the weight of the can dangling between your big toe and the one next to it. Hang your foot off the edge of the chair with your heel on the seat and the ball of your foot and your toes straight out over the edge. Grip the sock and can with your toes and lift ten times. Rest. And lift ten times. Switch feet and repeat. Gradually, as you get stronger, use heavier cans until you can lift 2kg. Finally, take that can and put it on the far end of the towel you have laid on the floor. Sit at the opposite end of towel and put your bare foot at the edge. Grip the towel in your toes and bunch it up, pulling the can of beans toward you. Keep gripping and bunching until you have moved the can all the way. Straighten the towel, replace the can of bean, switch feet and repeat. Remember, as you increase the weight of the cans in your sock-lift; increase the weight of the cans in your towel-grip.

To test your progress, get your bare foot wet and step onto the sidewalk, shower tile or some other surface where you can leave an imprint. The goal is to have your footprint resemble a "C". The bigger the open space on the inside of your foot, the higher your arch and the greater your ability to spring or absorb shock.

**Inflammation of the muscle joint can be healed completely with anti-inflammatory medications and bracing, right?**

**WRONG!!**

Aspirin and nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen do serve a couple of purposes. Taken properly, they can reduce pain and inflammation in joints and soft tissues, such as muscle and ligaments by blocking the production of prostaglandins (Chemicals that cause inflammation and trigger transmission of the pain signal to the

brain). But, in order to start the healing process, it's up to you to take advantage of the comfort levels afforded to you by painkilling. When you are in pain, you tense up to protect the injury from further harm; your whole body forms a "splint" of sorts.

Protection takes enormous energy and causes imbalances and tension everywhere. Additionally you don't sleep well when you are hurting. And, as you rest is disturbed, your ability to cope with the injury and make good decisions is diminished. Feeling better may allow you to move the injured joint or flex that injures muscle just a little, so that you have less need to protect yourself. You'll be more relaxed; you'll sleep better, allowing your body to rejuvenate more quickly. And most important, when you feel comfortable, you will be able to move, increase the range of motion and pump blood to the injury to promote healing.

A few words of caution: Pain is your body's way of communicating clear messages to you about the status of an injury. Don't use painkillers to mask pain that you need to be evaluating and using for information. There where an incidence and surely not the only incidence where an athlete used ibuprofen to mask the pain of a stress fracture in her shin, and continued to run – with disastrous and long-term consequences. Also, please keep in mind that even medication brought over the counter is still medication. NSAIDs have possible side effects of which you need to be aware: nausea, indigestion, diarrhea and peptic ulcers. Aspirin could cause clotting disorders, prolonged bleeding, colitis, gastrointestinal disorders, ringing in the ears, and aggravation of asthma, hives and goat. BE CAREFULL.

**Improvement of sports performance comes from working harder. To progress, I need to be out there everyday, hammering as hard as I can, right?**

**WRONG!!**

YOU NEED TO REST. The sports performance cycle works like this: In a workout, you stress a muscle or a system, literally tearing it down (Lysis). The muscle or system remodels or rebuilds, coming back a little stronger. You stress it again and tear it down. It rebuilds even more strongly. You stress it again and tear it down. It rebuilds, getting stronger every time. If the interval between workouts (the tearing down phases of the cycle) is insufficient; you do not give your body time to rebuild. You change the cycle from "tearing down-building up-tearing down-building up" to "tearing down-tearing down-tearing down-tearing down". The process of lysis and synthesis is now changed to lysis and lysis and destruction. It doesn't take long for the cycle to fail. The key to successful progression in getting stronger is to honor the interval of time needed for your body to rebuild – roughly 48 hours. This doesn't mean that you can be active only every other day. It just mean that you must do different things or do things at different intensities on sequential days. The rest day in between "hammerings" will allow the rebuilding and you'll get full benefit from your workout.

How do you know that you're overtraining? Good clues are rapid pulse taken before you get out of bed in the morning, soreness, tightness, unexplained colds, sleep disorders,

crankiness, and lack of progress. Or an honest look at your training log that reveals hard training many days a week.

## Strength myths

The myths you must never repeat or admit you believed

The world of strength training is saturated with misinformation passed from one well-intentioned athlete to another. Since the dawn of lifting, athletes have cornered each other in locker rooms and whispered, "Say, what do you think about...?" The person being asked is naturally flattered and yet a little too busy folding his towel at the moment to dash out to medical school for a degree in sports medicine, so he comes up with an answer – likely the same that he got when he asked someone.

The problem in strength training is that myth and wonderment have etched some pretty far-fetched ideas into the theory and practice. It's no one's fault, really. In the very beginning of strength training there was no research. Everyone just did the best they could. It has only been since researchers have entered the picture, and athletes have moved from their gyms into gleaming laboratories that we have some concrete science to back up or theories (or debunk them). Frankly, science intervened in the nick of time.

With a full-blown fitness revolution-taking place, more people are participating in fitness programs than any other time in history. Unfortunately it takes a long time to correct long held, sacred beliefs. Fitness professionals all over the world are doing their best to get it done as right track. Stretching SA also say that, "what you don't know CAN hurt you, but what you THINK you know can hurt even worse!" We call these tidbits of information the "Myths of strength training." They are so universally accepted that you yourself have heard them and may believe some of them to be true, it's time to set the record straight... Ah and we know you DID believe some of them, but don't feel bad, you were in good company, we won't tell anyone.

**No pain, no gain! Right?**

**WRONG!!**

This no pain no gain mantra is the sadistic companion of "Go for the burn!" Every time we hear it, we want to snatch a trainer up by his shorts and beat him with a 1980s fitness video. No wonder people have been avoiding working out! The perception is that unless training hurts, it isn't doing any good. Using "pain" to tell you that something is right goes against the laws of nature.

Pain is the natural load and clear signal that your body is being damaged and that you need to stop whatever it is that you're doing. In fact, your brain is programmed to instantaneously react (without having to think about it) to wrench

you away from pain stimulus. Also, in sports training and rehabilitation, pain is used as a diagnostic tool for pinpointing an injury, and getting an initial measure of its severity and subsequent readings on the progress of healing – to see how things are going. So pain is a very good thing. We love pain. Many things in life are supposed to hurt, like running over your own foot with a lawn mower, but working out is NOT one of them. Wait now; we can see you getting ready to issue a challenge.

After all, you've seen runners grimacing down the road and weight lifters screaming and sweating. You think it looks painful. In a sense you would be right... A little. Working out can be uncomfortable and require great effort. It can and does take your limit. But actual PAIN is where that limit is. Once you got to the threshold between "uncomfortable" and "painful", you draw back before you do damage.

Working out is fun. It takes you back to human basics where you'll rediscover joy. You're supposed to have a good time.

**You can lose inches of your waist in just weeks with the ab-machine!  
Right?**

**WRONG!!**

This manufacturer's claim has a whole lot of starry-eyed people spending big bucks for roll bars and throwing themselves onto the floor to crunch. We wish you had called us first. We could have saved you a bundle and helped you keep your carpet clean. The claim is false on 2 fronts. First, there's no such thing as spot reducing. Sorry. When you build muscle and burn extra calories, your body decides what goes first. You can't crunch you abs and demand that only abdominal fat melts off. If you burn calories, they are drawn from all over in a genetically programmed sequence over which you have no control. And second, you can't get fit in weeks. Well, you can, if you put enough of them in... perhaps as many as 52.

Here's one final irony that ends the fantasies of many spot-reducers. In attempting to spot reduce by over exercising one area of you body, you'll likely pump that muscle group up and make it larger. If your goal is to get smaller, this is the last thing you want. (It's rumored that Popeye was only trying to lose a few pesky inches off his forearms)

**Exercising to failure is the best strategy for strengthening a muscle!  
Right?**

**WRONG!!**

Training to failure is repeating a motion until you can't do it anymore. Here's how it works. As you lift, some of your muscles become fatigued and drop out. Theoretically, in the split second after that happens, other muscles are recruited to take up the slack, and you get some pretty sneaky compounded benefit. Not only do the primary

muscle group really get a good, hard workout, but some secondary muscles are recruited and stressed, even momentarily. Sorry to tell you that's not true. The truth is that no studies have been able to directly examine training to failure versus not training to failure, because it's been impossible for researchers to figure out how to equalize the work in the laboratory. One attempt at quantifying results did this. They measured the performance effects of 1 set to failure, 3 sets to failure, and a periodized program (no training to failure). All sets were 8 to 12 repetitions each; Guess what they found at the end of 7 weeks? In all exercises, the people who did not exercise to failure performed equal to or better than those who pumped continuously.

Our problem with working out to failure is that you damage the muscle. Heavy weight training – especially on large muscles – can lead to overuse injury in an astonishingly short period of time. It isn't long before an athlete will notice that no gains are being made, and worse, that injured muscles are weakened. Additionally, experts cite alarming statistics regarding acute injuries in tendons.

More bad news. The results of training to fatigue in young athletes damages the growth plates in bones. Also the highest spike in blood pressure occurs at the moment of failure. If an athlete has hypertension, this could be dangerous.

**Searing pain is due to lactic acid buildup! Right?**

**WRONG!!**

Lactic acid in your muscles does burn, but its presence is often described as “discomfort that builds slowly”. Lactic acid is only one of the metabolic waste products that your body produces as muscles fire and undergoes micro traumas. If your body is unable to keep up with the demand for flushing these waste products out of your muscles, those muscle fibers begin to get irritated and to fatigue. When you work out hard, you rapidly become familiar with the sensations of buildup, and use them to monitor your exertion levels and make decisions regarding performance: pour it on or back it off. Searing pain is something very different. This is an indicator that something has been suddenly, and traumatically injured. You might have a strain, a sprain, a nerve impingement, a tear, or a fracture. But lactic acid is the least of our problems. If you have searing pain, stop whatever you are doing IMMEDIATELY.

**If I stop working out, my muscles will turn to fat! Right?**

**WRONG!!**

Not unless you are an alchemist or a genetic mutant. Here's a basic anatomy lesson: “Muscle is muscle and fat is fat”. You can't turn the one into the other. Oooh, if only we could.

What really happens when an athlete stops working out is that his or her caloric demand decreases dramatically. When training the athlete can consume huge amounts of calories, even when the food is healthy, still they need energy to fulfill their demands. Not only is eating perfectly all right, but it's necessary to fuel the performance efforts we demand from our bodies. Remember, "food is fuel"... and we need full tanks of high test.

The problem with abandoning activity that make all this necessary is that the body no longer requires as many calories. Unfortunately, it's difficult to adjust eating habits to accommodate this diminished need. Often, it's not the athlete's fault.

If a fine balancing act, as difficult to achieve as the last one: figuring out how to could keep from loosing weight with 6000 calories a day. And one more insidious thing happens. After 72 hours of the last workout, the body begins a gentle, almost undetectable slide into sloth. In time, muscle mass diminishes. Finely tuned muscles that used to fire and burn calories, and juice up metabolism just can't do the job anymore. Consequently, the body does not burn fat particularly efficiently. So the fat gain accelerates, compounded by a declining metabolism, diminishing muscle mass, and failure to adjust caloric intake. Muscles do NOT turn into fat. The fat takes over. The trick, of course, is to continue working out at some level.

**Sweat suits and wide neoprene waist cinchers melt the centimeters  
and kilos away while I lift! Right?**

**WRONG!!**

Your body turns up the heat when you work out. Your muscles are like little furnaces, thermodynamically converting calories into energy to fuel your effort. You need more oxygen for this internal ignition process, so your heart beats faster and you breathe harder. Your whole system revs up. And you get hot. As that happens, your body has to maintain your core temperature to keep your internal organs cool, so it generates sweat that evaporates off your skin and naturally cools you off. The whole process is a miracle in efficiency... and all engineered by our Creator to save your spleen from being par boiled! Now, if you saddle yourself in a sweat suit or worse, a neoprene body stocking, you interfere with the Grand Design. You generate more heat, which in turn generates more sweat. And, as if you haven't done enough, you block your body's ability to take advantage of evaporation and cool its core – YOUR vital organs... including what's left of you brain. As for limiting the neoprene as a belt, we've already told you that spot reducing is impossible, so although wearing a belt wouldn't be as bad covering the entire body, it would be useless.

Ok, we'll admit that if you make yourself sweat, you WILL lose weight. BUT the weight you lose will be water from your body, called sweat and you'll end up dehydrated. Your workout will be trashed. You'll gain back all your weight loss at the water fountain (hopefully), but you're going to stay in a dehydrated state for 48hours, while your cells recover their volume. What you really want to do is lose FAT, not weight. Weight is irrelevant; it's an ever-changing number that reflects the composition of you entire body: Water, bone, tissue, muscle, fat, hair and sneaker, the whole deal. It

makes a lot more sense to give your body every opportunity to get a good workout, where it can rev up its metabolic furnaces and get stronger so you can burn more calories and get leaner. Be cool. Literally..

### **If I work out, I'll bulk up! Right?**

**WRONG!!**

While many people do train to build muscle mass and bulk up, bulking up isn't the inevitable outcome of strength work. In fact, you'll have to engage in very specific workout protocols—heavy weight and repeated sets – to do it. Getting stronger without enlarging your muscles is as simple as lifting lighter weights with more repetitions and limited sets. If you aren't interested in bulking up, exercise physiologists and researchers tell us that a more “conservative” development can give you just as much strength as a pumped up, bulging form. In fact, the size of a muscle is not an accurate measure of its strength. In the case of sculpting a body, bigger is not necessarily better; In fact, studies suggest that the larger development puts extra weight and demand on the body, and may impede the ability to move a muscle through its full range of motion, creating, ironically, weakness in some of the muscle's function.

We most often hear this concern over bulking up from women, who want to get leaner and stronger, but still maintain soft curves. Working out will not turn you into the Hulk... unless you want to do it. (And, again, you're going to put major effort into this) Unlike your male counterparts at the gym, your body is lined with a subcutaneous layer of fat. God put it there to insulate unborn children and to store estrogen. It's entirely possible for you to be highly developed muscularly, and yet keep that physique “hidden” and create a soft line. Instead of appearing to be “ripped” and “cut” – which you may very well be – you'll maintain a smoother topography. To show detailed muscular development, you'll have to reduce the layer of fat levels well below normal for females. Keep in mind that male body builders display definition by lowering their fat contents to below 4 percent. If this seems like a good plan for women, forget it! Dropping your fat content below 16 percent may cause your estrogen levels to diminish, possibly resulting in your losing estrogen's cardio protective properties, developing amenorrhea, and running an increased risk of osteoporosis. Every woman is different, so you and your physician will want to monitor your body carefully and make intelligent decisions that take into consideration the long-term consequences of dieting into low ranges of body fat.

Strong, fit, healthy women are beautiful women...soft curves included.

Can a woman bulk up? You bet. But be advised that you will never be as massive as your male counterparts. You aren't genetically programmed to achieve that physique. Male lifters have the benefit of testosterone in your system; too, you simply do not have as much as men do. Of course, you can remedy this by taking supplements, but we forbid you to be this stupid. Not only will you ruin your health, destroy your ability to have children, and shorten your “bulked up” life (whose going to take your state pension then?), but you will grow facial hair, break out in wide spread acne, deepen your voice, become aggressive and develop unnatural urges to urinate standing up and hunt your own

food. We insist that you develop your body to the extent that you are genetically permitted, and enjoy the results.

Now what?

You've come all this way, paging through all this information, but what DO you REALLY need to do then. All the things that you ever believed is trashed down the drain, you know you can't trust the youngsters' advice at the gym, and that you always wanted to loose belly fat by training your abdominal muscles!

Well read again, there are clear answers on what to do and what not to do. But to put it all in a nutcase for you it might sound a little like this:

1. Go see a physician before you start any training programs
2. If you are cleared to be able to start training, don't just jump in, get yourself in balance first (that means, don't just join a Fitness club for thousands of Rand's, you won't last, and you will must likely stop training long before you can stop paying)
3. Stretch, stretch, stretch, With active Isolated stretching you will not only get all muscles back in balance, but you will do continuous active movements. That will strengthen up all the muscles in your body one by one.
4. Strengthen, stretch, and strengthen. Get a strengthening program by your Sport and exercise technologist or exercise physiologist. According to you Active isolated stretching program, the weaker muscles will show up very quickly; get them working on specific ways.
5. By now we are 1 month later, you are already very well conditioned, and it is time to go and lookout for a Fitness club near you, (or a bicycle store). It is time to do cardiovascular training, stretch and strengthening. You don't need the circuit machines to make muscle; there are many ways to do this.

What about Pilates training or yoga classes?

There is nothing wrong with that. There is nothing wrong with any physical activity. It is only that many movements in these training methods are advanced. Get advanced first, and then start doing advanced stuff. However it is vital to open up all the pathways in your body before you start anything else. You'll need to get the arteries pumping with blood, open the neural channels properly, remove all scar tissues and toxins from the body and get the body's muscular system in good balance before you can start your favorite exercise routine.

And remember Stretch, stretch, stretch ... THE RIGHT WAY.