

FLEXIBILITY AND RANGE OF MOTION

In the process of developing and maintaining your highest physical condition, you may not have become aware of the need and value of flexibility and range of motion exercises. Most people get to a very advanced age and never learn about the value of maintaining flexibility and range of motion. Most people never feel the need to do so, or fail to realize how much such exercises can benefit their health. Sure, everyone knows you're supposed to stretch, even though hardly anyone does. This is really sad, as a great deal of seniors' health problems could be reduced if they learned to do these exercises. I am amazed at the number of high level athletes who do not grasp these concepts. I train with advanced belt martial artists and professional athletes who are virtually ignorant of flexibility and range of motion exercises. These are younger athletes. Most of them are getting by on youth and natural ability, never recognizing or achieving their maximum potential, in part because they fail to see the value in this type of training.

I was close to fifty years old before a significant portion of this aspect of training became relevant to me. I had trained in the martial arts as a young man. Like most, when I was young, I got by on natural flexibility. In the years between twenty and fifty, I failed to learn the value of flexibility and range of motion training. Like many of you, in the years between my youth and my present age, I just lived my life. It was an active life that included many forms of exercise, with no disciplined or regimented workout schedule. I rode my bike, hunted, chopped wood, and chased my kids around. All that stuff is good. Unfortunately, if you want to be truly physically fit and are capable into your fifties and beyond you will need to

follow a complete fitness plan that encompasses all aspects of fitness. The good news is you have found it! The bad news is, you have to do it. Well not really bad news. A sobering realization? Not quite an epiphany. Maybe just facing reality. Anyway, that is what you are here for. We are going to teach you how to do the types of exercises that are going to make you look better, feel better and enjoy the remaining years of your life to the fullest possible potential. In the process, you are going to have more and better sex. You are going to enjoy more of a feeling of control over your life. And you are going to have less fear about what the future holds for you. As you improve your ability to move yourself about and improve your health at the same time, some of the anxiety that we all have regarding what is in store for you will lessen. You will know that you are making a serious and yet reasonable effort to insure your health and your mobility well into old age. At the same time you won't have to become fanatical about any aspect of this plan.

As the years have gone by, you have probably done a little of this and a little of that in terms of getting exercise. That is perfectly normal. Most of us have so many economic and familial obligations that the concept of staying in shape gets relegated to the back burner. Exercise is something we know we should do but has a hard time rising high enough on the priority list to actually get to it.

When most folks are in their twenties and early thirties, they can get by on youthful vigor and keep up quite a busy pace without a specific exercise plan. Most can carry an extra twenty pounds of fat as well. Somewhere in the mid-thirties these behaviors begin to catch up with you. By the time you get to forty, if you are carrying extra weight and not actively exercising, your ass is draggin'. You're tired, lack energy and your feet and joints and back are starting to really hurt. It is unfortunate that at this point most people give in to the increased difficulty of moving around and things proceed downhill from there. If a person can't get motivated to turn their ship in a better direction, it becomes increasingly difficult to reverse a pattern of sedentary behavior as time goes by. That is why the time to start is, as it always is, now.

You have no doubt heard enough reports of the obesity epidemic in this country. Most people who are overweight have the idea that they are "a little heavy". Most are in denial of the magnitude of the negative affect of being overweight or obese has on their health. Most plan to lose the extra weight and start exercising "real soon." If everyone who is relatively young

and overweight knew of the large number of diseases that are exacerbated by excess fat, knew of the diseases they were predisposing themselves to, and knew how much easier it is to turn their ship at an earlier age, we would all be better off. The health care costs of treating obesity-related disease are staggering. Remember this. This is the first generation in which obesity is affecting a significant number of children. In the entire realm of human existence, this is the first time there were significant numbers of fat children. The financial burden imposed on society as this generation ages through the medical system will be staggering. These children do not know any better. Their ability to choose what to eat is no better than their ability to choose what to watch on TV. If they have overweight or obese parents offering an example of sedentary behavior, then this pattern is likely to be engrained in them. Anyone who is capable of doing a rational and realistic assessment of themselves and their kids, and comes to the conclusion that changes must be made, is now at least looking in the right direction.

So now you are looking in the right direction. I kid you not, this is the first step down a new path to a healthier and happier you. I could toss in a bunch of tired old clichés right here and they would actually fit! And they would actually be true. A lifelong journey begins with the first step. You only fail when you quit. Two steps up, one step back. You can lead a horse to water. Does a bear poop in the woods? Oops, sorry.....

One of the best and relatively easy aspects of an exercise program that I like to see people start with involves flexibility and range of motion. It is absolutely vital to the success of any fitness plan that a person spend a balanced amount of time and effort on each area of that plan. Flexibility and range of motion training will go a long way to helping ensure you do not sustain an injury that sets you back. It also will do more to reduce your level of pain from either strong exercise or sedentary behavior than anything else you do. Remember, a diet is not likely to succeed long term without exercise.

Flexibility and range of motion exercises are fundamental to all other forms of fitness training. Usually you will want to do these types of exercises prior to your muscular strength and endurance exercises. When your time is limited (and whose isn't?), these become the most important aspect of fitness. They are also easier to fit into small increments throughout the day without working up a sweat. Invariably you will feel better after you do them. Anyone who has received any training in yoga or tai chi will understand this, because there is a lot of overlap in the motions. When

we talk about flexibility and range of motion, we are talking about your body's ability to move.

When you were around sixteen or seventeen years old, you had your greatest degree of natural flexibility and range of motion. You could stretch as far as you were genetically designed to and your joints allowed the maximum amount of movement. From then on, two things began to happen. You began to thicken. It started with increased muscle mass as a part of maturation. Perhaps you took on a physically demanding job or sporting activity that built muscle. Next, you probably began to lay down a layer of fat (some people did this more than others). You may have taken on work that was primarily sedentary. As time marched on, unless you studied yoga or tai chi, you lost range of motion and flexibility.

Let's examine flexibility. Flexibility primarily refers to your muscles and tendons, your ability to stretch. Most of you have a pretty good idea what muscles are and what they do. We're going to elaborate a little bit. You can feel your arm or leg as you contract a muscle and tell approximately where that muscle is. If you're lucky it gets hard. Your muscles' job is to contract. That means they get shorter when they are performing their function. That function is designed to move you or something else to do useful work. Muscles have no inherent ability to elongate. You need to apply your generous brain capacity to an opposing set of muscles to elongate and stretch a particular muscle that you want to get longer. Muscle tissue does not like to be stretched. Initially when you stretch a muscle, it will try to contract to "fight" the stretch and you will gently and firmly hold your stretches for twenty to thirty seconds to overcome this normal phenomenon. More on technique later, we're still talking theory.

A big part of stretching muscle tissue involves time. I'm going to make a point here and I'm going to remind you of it so often you will get tired of reading it and hearing it. By then it will be seared into your brain like one of those little ditties that plays over and over in your head and you will be able to remind yourself for the two or three years it will take to get your body back into tip-top working order. It has taken a long time for you to lose range of motion and flexibility. It will take a couple of years to get it back. If you stick with this, you will get it back, at least most of it. And since this is likely your last go-around (I would love to believe in reincarnation but I just don't have anything solid to go on), look down the road. Say you are fifty. Statistics give you approximately thirty more years. Do you want to sit on the couch, stiff, and in pain? Weak

and fearful? Sickly and sexually frustrated? Dismissed as old, frail and incapable? Hell no you don't. I know that a couple of years may seem like forever in a society where instant gratification is the norm. But those years will pass by anyway and the question is "How good are you going to feel then?" Well, you have seen hundreds of diets and hundreds of workouts come and go. Most of them promise dramatic results with little effort and they all fail.

Back to the subject of stretching muscle tissue. Muscle tissue is in a constant state of being rebuilt. When you continually and regularly contract muscle[when you work out a lot] muscle rebuilds thicker and stronger. Individual subunits of muscle tissue are replaced and added to and a muscle gets bigger. During this continuous process, if you continually stretch, the muscle it will be rebuilt at a minutely longer length than it was before. And I do mean minutely. If you try to elongate a muscle rapidly you will tear it. This, quite obviously, is an injury that you do not want. This can set your progress back weeks to months. In the process of being diligent and persistent at progress we will be equally careful that we do not overdo it. So when it comes to muscle tissue, slow and steady progress is the goal. This way the muscle gets thicker and stronger and longer over time. We'll teach you a bunch of specific techniques on that later on. Right now we are talking about theory and goals. The end result you hope to obtain is lean, hard and flexible muscle tissue with no tears. Now muscles are able to affect useful work by exerting the force of contraction on a bone. The bone is the lever that actually does something like throw a ball or scratch your hiney. The muscle is attached to the bone by the tendon, and the tendon is a very important part of this scenario.

The tendon is made of dense fibrous tissue that is very difficult if not impossible to stretch. It is very tough. Tendons can be stretched over time and lucky for you, the effort you make to stretch your muscle will stretch your tendon at the same time. The tendon is like a rope, made of multiple small strands, woven together into a tough fibrous connection that neither shortens nor elongates under normal use. The way you can stretch a tendon is this. As with almost all tissue, individual sub-units of that tissue are being replaced over time. As wear and tear occurs, individual strands are replaced. How fast this happens is called the "turnover rate." For the collagenous tissue that makes up a tendon, the turnover rate is about one year. In other words, it takes about one year to replace any given tendon. So you can see how this is a time-consuming process. Your body's mechanism for tendon renewal is inserting one new strand at a time, and if you are

stretching, each new one is minutely longer than the one it replaced. You can build up your muscle mass and strength in a few months if you really go at it, but stretching of muscle and tendon take time. That is fine. You are going to be at this for the rest of your life, so that you can move and enjoy and shimmy and shake, strut your stuff and eat your cake.

You now have a thumbnail sketch of flexibility. You are used to thinking of it as how far you can stretch, which is a very good approach. Flexibility, range of motion, and stretching are overlapping and interrelated concepts. One most certainly affects the other. Range of motion describes how well your joints are able to move. The attendant muscles and tendons will also limit joint movement to some extent. Certain joints such as your knee move front to back in one direction with very little lateral deviation and that's it. There is little you are going to improve in terms of range of motion involving a knee. Maybe I spoke to soon. If you injure a knee and can't bend it and have to go through physical therapy to get that ability back, yes, you can improve range of motion in a knee. What we are talking about is going to be your joints that move in several directions (or at least joints that used to). Your hips and shoulders and neck and spine. Your ankles and wrists and elbows. These are joints that you will be spending a fair amount of time on for the remainder of your life, maintaining and improving their range of motion.

Your joints are made up of connections between two bones. By this I mean two articulating or movable bones. Those two bones are attached primarily by ligaments. Ligaments have a lot of properties similar to tendons. They are made up of tough collagenous tissue that is not easily stretched. When they are torn, they take a long time to heal. Pain in a ligament, which means pain in a joint, is something we are very attentive to. We do not ignore pain in a joint. You heard the DI bark "No pain, no gain!" That does not apply to ligaments. This is a good time to bring up a point that I will repeat (remember, repetition is learning). If you ever have pain in a joint when you are stretching, stop. Reexamine the stretch for proper technique and do something else if need be. Ligaments are tissue that will get stretched a little, inadvertently as your muscle and tendon stretches. During your range of motion exercises you will be impeded and limited to some extent by the ligaments. Truth is, it may be impossible to tell which type of tissue is limiting your motion without the aid of biometric analysis. In most cases you do not need to know. Just remember the rule about pain in a joint. If you have pain in a joint when stretching, stop.

This brings up another little aside. You are completely aware of the “little aches and pains” you experience. Most of these you shrug off and keep going, while some hurt enough to limit your activity. In the process of performing these exercises you will feel little aches and pains on a regular basis. Only you can tell if it is a large enough pain to feel like an impending injury. Only you can make that call. When something hurts enough to persuade you to back off, do not despair for there are so many exercises to do that you could not possibly get to all of them in a day anyway. So you will simply do something else. As I will tell you again, there are days when my elbow tells me, “You’re not doing pushups today,” for no apparent reason. So I do something else, probably more leg lifts. Remember that if something hurts, you need not avoid activity altogether. The one possible exception to this is back pain. Sometimes my back hurts enough that I can do nothing. We’ll talk about that more in another section.

Back to range of motion. You will see various range of motion exercises in this book and the supplemental videos that will show you how to get your shoulders, hips, neck, back, and ankles to return to the full range of motion you had when you were much younger. Keep in mind that the series of exercises you see take me about thirty-five minutes a day and I do them every day. On a good day, I get to do them twice. I will do them prior to every big workout. Ideally that is every other day. On the light workout days, I do range of motion and flexibility exercises and stick work, the filipino martial art of arnis. Some days it seems I do not have time for anything, as I do not always get to make my schedule fit my workouts. As often as not, I have to make my workouts fit my schedule. This is something almost all of you will have to deal with at some time or another. One really helpful aspect to this part of your training is that you can get it in bits and pieces throughout your day. If you can’t devote thirty-five minutes to it at one time there is a really good chance that you can find five minutes here and three minutes there throughout your day that add up quickly. As I said before, don’t worry about looking silly swinging your arms around. Anyone who is aware of what you are trying to accomplish will think it’s cool. Most of those who think it is weird are probably in a state of physical condition that could benefit from the same activity. Most of them probably feel weak and tired, the very feelings you are working to overcome. So what the hell do you care what they think anyway? At some point in the future they will come across this information and they will look back and remember Mary in shipping working her shoulder and realize how enlightened that activity was. Shortly you will get into the

pages that demonstrate these flexibility and range of motion exercises. I promised you this book would be short and sweet, with no filler. I am a simple man. This is a simple plan.