



Perfect Posture Program

A Guide to athletic & life enhancement

By Mark Sias

Introduction

Hello, welcome to this exciting new e-book on posture. In this book we will explore what exactly “good” & “bad” posture is as well the cause & effect relationships it can have on your health & performance as an athlete. Then we will take a look at the different stretching & conditioning methods to correct posture problems to optimize your life! It is both my co-author’s & my belief that you aren’t born with bad posture but rather manifest it through bad work & exercise habits resulting in poor muscle balance & tightness from lack of flexibility among other factors. It’s not enough to simply do a mirror check & adjust. Within minutes you’ll have unconsciously reverted to your original form.

Good posture says a lot about a person, people who are erect appear taller, more attractive & subtly exude confidence. Just look at any runway model you’ve ever seen. Good posture means having each body part in alignment with the next. This will be in a straight line from head to toe. Picture a hook on the top of your head & some imaginary force pulling you up slightly. This is how you want to be at any given time. Hold the head high, shoulders back, the gut should be in not sagging,



back straight, buttocks tucked in, pelvis level, & feet forward. While standing you should look like this: Your ears shoulders & hips should be level. The pelvis neutral, knees slightly bent, & weigh on the balls of the feet. Sitting is basically the same, scoot all the way back in a chair to avoid slouching. Maintain the 3 natural curves in the spine.

This promotes better breathing & circulation which will improve every area of your life. Remember posture entails a chain link concept.

Whereas the pelvis can be off tilt & it will say affect the knee. The first step is to get this image of yourself in perfect posture in your mind on a regular basis. Write “perfect posture” on your bathroom & vehicle mirrors. And while you’re at it tilt that rearview up slightly for the norm to force yourself to keep an erect neck & spine while driving. This “good” posture will lead to better transition of power & speed in athletes. Good shock absorption, faster strength gains, decreased muscle fatigue, decrease injuries, better sleep, are just a small portion of what’s to come!

Bad posture comes in many forms as we’ll soon see & has many causes. Some more common causes tend to be obesity, lack of flexibility (more on this later), long periods of sitting, injuries, shoes, & even bedding. While putting my notes together I interviewed several Chiropractors, all of which concurred that poor spinal health (be it whatever the cause, ex; injury posture, obesity) can lead to impingement of nerve tissue, even if ever so slightly & asymptomatic. This in turn can be the cause of further complications to tissue & organs the nerves supply. If you are an athlete this can also mean slower muscle response, as well as decreased muscle motor unit recruitment. In fact there is a direct relationship between optimal spinal nerve function & immune system function. To further support this I had recently read in a medical journal a correlation between decreased cold & flu occurrences in people who had seen a chiropractor. I’ve personally trained with one such athlete who after receiving just 1 adjustment experienced an immediate & dramatic



increase in strength levels!

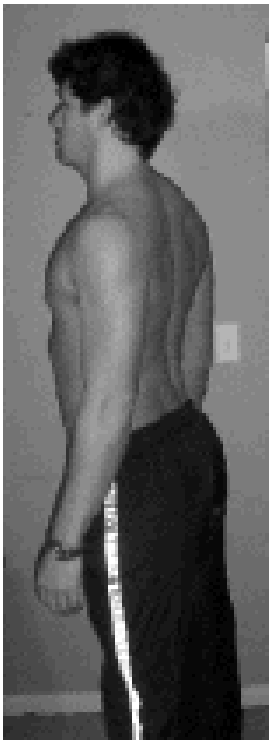
You don't have to run right out & start getting back cracks, but for the meantime here are a few things to start doing:

- Spend some time daily just walking around barefoot. If you are female, avoid wearing high heels. Get a good shoe insert like Dr. Scholl's.
- Get a better picture of yourself. Something as simple as self esteem can literally "bring you down!"
- If you have a waterbed, get rid of it. Same goes for any sagging mattress. Use a good support pillow right under the neck. If you sleep on your back, place a wedge pillow under the knees to align the spine & properly relieve lumbar pressure. If you sleep on your side, it's a good idea to use a pillow also between the knees.
- Give a best effort to shed those extra pounds if that is applicable to you.
- If you sit a lot at work or school, take a few intervals to get up & walk around. While sitting get a cushion to wedge into the small of the back for good alignment. A main cause is inactivity as the body takes the new form of the couch. Be active!
- Watch fashion models & people who display excellent posture, get a picture of them in your mind & mimic.



Common Postural Problems & Solutions

In this section we are going to explain & give illustrations of the most common posture problems affecting the general population. You shouldn't have any trouble identifying where you might fit in & need a little work. If you do however, try asking some friends or better yet video tape yourself throughout the day & playback later. You might self-correct while on camera but don't worry eventually you'll slip up & find your flaw.



Lordosis is characterized by abnormal curvature of the lumbar spine, forward tilting of the pelvis, giving the “swayed back” appearance. The condition is thus commonly referred to as “Sway Back” posture. While this condition is sometimes present at birth, more common cases are neuromuscular deficits. The long term result of this, unchecked could result in spinal deformity from vertebral compression. Overweight persons tend to favor this affliction usually from the need to counter-balance themselves resulting in tight, over developed spinal erectors, hamstrings, & posterior deltoid muscles. Also weak, underdeveloped gluteus, & rectus abdominals in both overweight & average people. To the right is a photo illustration of what a person with this affliction might look like. There is a distinct pelvic tilting,

sometimes, excessive lumbar curvature & usually a distended abdomen.



Recommended Stretching

- Haunches Stretch; 3 times per week. Do 2 sets of holds no less than 20 seconds.
- Toe Touch; 3 times per week. Do 2 sets of holds no less than 20 sec. *Remember to push past previous. You are trying to increase flexibility!
- Posterior Deltoid Stretch; 3 times per week. Do 2 sets of holds no less than 20. Repeat with the other arm.
- 1 Leg Hamstring Stretch; 3 times per week. Do 2 sets of holds no less than 20 se. Repeat for the next leg as well.
- Gravity Inversion; Perform these after stretching & strengthening circuit, 3-4 times per week for 2-3 minutes total.
- Hanging traction; do these 3-4 times per week, after other training regiments, 2 sets of 30 second hangs. Add light “traction” weight as you get better at this.
- Walk with book balanced; perform this drill 5-7 times a week, for 10 minutes.

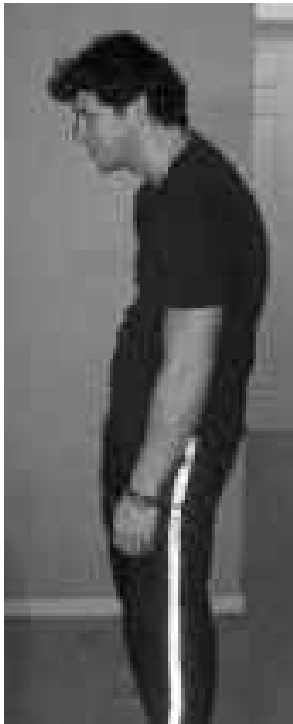
Recommended Strengthening

- V-sit ups; 3 times per week. 1 set of 20. Add ankle weights or squeeze a medicine ball between the legs as it gets easier. Can be done on stretch days or opposing days.
- Bicycle crunches; 3 times per week. 1 set of 20 reps.
- Gut Suck; Hold this position for 20 second count. Repeat 3 more times.
- Good morning lift.; 2 sets of 12 reps with resistance.
- Push ups; 3 times per week, 2 sets of 12 reps with high resistances levels as described.
- Balance “T” ; Perform this drill 5 times per week at anytime of the day/work out. Aim to hold for 30 sec. in good form on each



leg.

Follow this structure for the next 6 weeks, after which time you will begin noticing improvements, then you can begin to incorporate the other exercises in the program. It is especially a good idea to do isometric stretching of the whole body as a preventative maintenance measure. This will be discussed in more detail later.



Kyphosis A.K.A. hunchback, or slouching. Characterized by rounded shoulders & holding the head too far forward. This is probably the most common posture problem among athletes. Slouching makes the lungs work more & contributes to poor respirations. Even as much as 30%! Persons suffering from this in extreme cases would look like the Mr. Burns character on “The Simpson’s”. While there are extreme cases of this that are congenital, even they can be drastically improved with methods such as explained in this e-book. Typical gym rats suffer because they favor vanity exercises like bench presses & crunches. These build shoulder, chest, & abdominals. Thus, resulting in overdevelopment of the anterior chain. While neglecting posterior chain muscles.

Recommended Stretching

- Neck roll; Roll 5 times clockwise, then 5 times counter clockwise.



Hold neck stretch to left, right, front, & back 20 sec. each. Do these 3 days a week.

- Wall bridge; 3 times per week. Do 2 sets of holds no less than 20 sec. *Remember to push past previous by walking further down the wall.
- Pecs; 3 times per week. Do 2 sets of holds no less than 20 sec. or each. Do both the overhead & behind the back-stretch.
- Quad stretching; 3 times per week. Do 2 sets of holds no less than 20 sec. Repeat for the next leg as well.
- Anterior deltoid; 3 times per week. Do 2 sets of holds no less than 20 sec, each arm. Then perform the 2 hands clasped behind the back hold.
- Gravity Inversion; Perform these after stretching & strengthening circuit, 3-4 times per week for 2-3 minutes total.
- Hanging traction; do these 3-4 times per week, after other training regiments, 2 sets of 30 second hangs. Add light “traction” weight as you get better at this.
- Walk with book balanced; perform this drill 5-7 times a week, for 10 minutes.

Recommended Strengthening

- Neck isometrics; 3 days per week, Hold each position as explained for 10 sec. Do 2 sets of the position w/ hands behind the head, as this is the specific area to be corrected.
- Good mornings, 3 times per week. Do 2 sets of 10-15 w/ high resistance levels either with dumbbells, bands, a medicine ball, cables, or even partner assisted.
- Isometric Bridge; to strengthen the complete posterior chain from hamstrings to the neck, do this 3 times per week, 2 sets of 10 holds.
- Chest expander; for posterior deltoid & trapezius, perform these



as described 3 times per week, 2 sets of 10-15 reps at a very high resistance level.

- Balance “T” ; Perform this drill 5 times per week at anytime of the day/work out. Aim to hold for 30 sec. in good form on each leg.



Scoliosis is characterized by a lateral bending of the spine. While it can develop in early childhood or adulthood, it is most likely to develop during adolescence. Scoliosis also tends to be more prominent in females. Most cases, the cause of scoliosis are deemed unknown, research seems to indicate a link between it & poor bone density as well as some other factors

we'll take a look at. If detected early enough can be controlled w/ special orthotic type braces & yes, even exercises! People who have some curvature prior to puberty are most likely to develop further curvature during adolescent growth. Approximately 75%

of the cases are idiopathic (unknown causes) & about 25% are postural (compensatory) or neuromuscular disease. Interestingly enough both conditions can be significantly improved with proper strengthening & conditioning.



Some common symptoms of scoliosis onset are:

Uneven waist & shoulders.

The head isn't centered over the pelvis.

Ribcage deformity or unevenness

Protruding hip or scapula.

Positive Forward Bend Test (the spine is observed for "S" curve while bent at 90°)

It's also interesting to note that studies have induced scoliosis in animals by creating deficiencies in Vitamins B, C, E, elemental copper, & limiting activity. It's also worth mentioning that according research documented by the National Institute of Health, scoliosis can be cause by inactivity in children as well as prevented by exercise (which is proven to increase bone density!) and improved traction therapy (more on this later). To the right is an example of the forward bend test. As you'd look down the spine you would notice either the "S" lateral curvature or in this case lack of.

Recommended Strengthening

- Good mornings, 3 times per week. Do 2 sets of 10-15 w/ high resistance levels either with dumbbells, bands, a medicine ball, cables, or even partner assisted.
- Isometric Bridge; to strengthen the complete posterior chain from hamstrings to the neck, do this 3 times per week, 2 sets of 10 holds.
- Side bends for lateral & torsion obliques. 3 times per week, 2 sets of 12-15 reps with high resistance for each side.
- Balance "T"; Perform this drill 5-7 times per week at anytime of the day/work out. Aim to hold for 30 sec. in good form on each leg.

Recommended Stretches



- Gravity inversion; Perform these after stretching & strengthening circuit, 3-4 times per week for 2-3 minutes total.
- Hanging traction; do these 3-4 times per week, after other training regiments, 2 sets of 30 second hangs. Add light “traction” weight as you get better at this.
- Walk with book balanced; perform this drill 5-7 times a week, for 10 minutes.



Duck Feet. Ever take a look at some people walking? Some majority of people waddle along with there feet pointed outwards similar to a duck. This is a form of bad posture is called foot pronation. Charlie Chaplin comes to mind with his exaggerated gait when I think of

this. It is a bad habit that promotes other problems like stress on the knees & ankles, even up to the spine. Athletes with this condition tend to be slower runners, & more injury prone than those who are not. If you're an athlete also, it will affect your vertical jump, by energy losses at the knee joint. Power is now traveling through the quads in a less than straight line vertically. This is another case where proper shoe inserts may help as well. The usual cause of this is weak & tight hip rotator muscles like the Tensor Fascia Latae, Gluteus Minimus, & Gluteus Medius. Another likely culprit is the poorly developed ankle supinators like the tibialis anterior & posterior with tight peroneus longus muscle. Okay that's a lot of big words but to fix duck footers basically we need



to strengthen & stretch some smaller hip & ankle muscles. The end result will be better overall posture, resistance to knee & ankle injuries, improved agility, a faster “fleet” footed runner, and a more graceful gait!

Recommended Stretching

Pigeon foot toe touch; 3 times per week. Do 2 sets of holds no less than 20 sec.

Side hip stretch; 3 times per week. Do 2 sets of holds no less than 20 sec.

Ankle roll; 3 times per week, perform roll 10 times clockwise then 10 times counter clockwise each foot. Next do the ankle roll 10 times each direction while standing on toes as described.

Inverted ankle stretch; 3 times per week, hold for 20 sec. Push up onto toes & roll to outside edge of the foot & hold as described.

Recommended Strengthening

Dorsi-Flexion & Supination; 3 times per week. Using the bands, do 2 sets of 12-20 each leg with adequate resistance in the flex position, then the lateral inward movement, & finally laterally outwards.



General Posture Builders

Weight Loss

There are dozens of books & programs available everywhere on different weight loss methods. It is not my intention at this time to be another source or even to harp on anyone to lose weight or to otherwise beat the issue to death. I will say this, excess weight deposited in places it doesn't need to be throws the body's muscle-skeletal system off balance. I will also offer a few simple guidelines that I have used on many clients with tremendous success. I think a key that many weight loss programs are missing is simplicity. You don't have to count calories, carbs, or fats at all. What you do want to know is your body fat % and that can be done at nearly any fitness facility for a nominal fee. Next step is to follow these steps for just the next month & see how easy it is as well as how quickly the results have come:

- **No soft drinks or cola or fast foods.** Strive to drink 3 glasses of water daily. Make an effort to pack a decent lunch the night before. Simply replace any chips or other junk with a piece of fruit, trail mix or veggie. Have some form of meat with every meal.
- **Limit your laziness.** Keep yourself in check, avoid the tendencies to cut corners when you don't have to. Take the stairs instead of the elevator, park in a further parking space. Get out & do a little something everyday.
- **Have 1-2 low carb energy drinks that are high in vitamin B-12.** This has a 2-fold effect, the caffeine has a synergistic effect on metabolism with any exercise you are already doing , & B-12



doses at 500+ mg daily found in such drinks will automatically cause you to drop 5lbs in a month regardless of activity levels. My personal favorites are Hansen's Diet Red, Sugar free Red Bull, & XS Energy Drink.

- **Break meals up into 5-6 smaller meals.** Eating more frequently is a proven method of speeding up metabolism. Simply make your "in between" meals something like a protein bar or yogurt.
- **Supplement your diet with essential fatty acids.** There are so many balderdash pills on the shelves of stores & TV claiming rapid weight loss that it makes my head spin. Even as I write this the latest gimmicks are supposed cortisol hormone manipulators (which don't work by the way!). What does work & the only things you'll need are a diet rich these 2 fatty acids: CLA, short for Conjugated Linoleic Acid found in Cows milk. And Omega-3 fatty acids found in sea foods as well flaxseeds. Both are inexpensive & readily available at any health food retailer.
- **No carbs after 8pm.** I'm not big into carb starving but consuming too late in the evening will turn directly into fat. Finally, get a good night's sleep. That when critical hormones like HGH cycle & if you're not getting enough sleep you'll rob yourself of the positive effects of hormones like this.
- **Nitric oxide boosts.** I should really be selling you this last little tidbit for \$20, because off how well it will work & how much money you'll save that you would have spent on \$150 bottle of leptoprin with mediocre results. Anyway a recent study showed sedentary lab rats lost 50% body fat in 1 month taking large doses of free form amino acid L-Arginine. Researchers contribute



this to the elevation of nitric oxide levels & its ability to oxidize fat. The equivalent in a human would be 16 grams per day. That's a lot of arginine, but I have witnessed that $\frac{1}{2}$ the dose at around 8g for a short duration (3-4 weeks) still delivers most impressive results.

Here's a sample meal to give you an idea:

Breakfast: Glass of milk, yogurt, & piece of fruit like banana or orange.

Mid-Morning snack: Water, meal replacement/energy bar.

Lunch: Energy drink, tuna/turkey/chicken/ham sandwich on wheat, small salad or celery & carrots in spinach or ranch dip.

Mid-afternoon snack: Water or energy drink, trail mix (raisins, dried fruit, nuts, sunflower seeds) or yogurt.

Dinner: Any large portion of meat you'd like, substitute cola for tea or sugar free lemonade, substitute potatoes for a salad or group of vegetables that are higher in fiber more nutrient dense.

Night-time snack: If you get the late time munchies, better go with something that has next to no carbs like pieces of cheese.

That's it give it try & I'm more than confident you will like how easy this is as well as expect 15-20 to shed within as little as 1 month! Have a body fat % goal, rather than a weight goal. No worrying about fat grams or anything!



Gravity Inversion



There are recently a number of new devices developed for the purposes of gravity inversion such as Gravity tables & inversion boards & chairs, but perhaps the oldest & most versatile is the Gravity boot. Consequently also about the most cost effective as well. These hit the scene in the early 1980's as a fad & made more popular by movies like "American Gigolo" & "Goonies" then faded away. Unfortunately the true versatility & benefits of them were never really explored until recent years. Gravity boots cuff around the shin just above ankle & have a hook designed to work like a body hanger around any sturdy bar above head height. Most any pull up bar will be more than sufficient to achieve this. The act of being suspended upside down will reverse the compounding effects of the daily wear & tear of gravity, reverse spinal compression, provide the ultimate stretch, improve lymph function & circulation. Not to mention that you can do inverted sit-ups for added resistance, inverted squats to strengthen the hip flexors, & I've also found that you can use hem while on the ground too. Some of these are hooking a dumbbell of any given weight into it to do weighted pull ups, side & back kicks as well to develop the gluteus.



To invert yourself, take a wider than shoulder width grip on an overhead bar, then as swiftly as possible swing both legs up till the hooks clear the bar then you are free to hang. The first time doing this you will be timid to let go of the bar with your hands. Go ahead and let go, after you have used them a few times you will have faith in the boots. If you have difficulty getting your feet over the bar, it is usually due to weak abdominals and hip flexors. You can use a chair to step/kick yourself up to clear the bar. Once comfortable with using them, try adding a pair of light hand weights to augment the traction & stretching effects.

Hanging Traction



It's always a good idea to periodically stand with your back to a wall & press yourself to it in an isometric fashion to correct/check your posture. If you are willing to go 1 step further with this exercise you'll make even quicker progress. In the medical field extravagant traction devices (carefully applied pulling) are used to treat numerous conditions from fractured legs to back pain to cervical halos. It is all based on using pulling technique or gravity to properly align the muscles & skeleton. This concept is also used by chiropractors & physical therapists to



correct & develop posture. Japanese doctors have documented methods like this to work as good as braces for scoliosis patients.

The good news is you can do this right at home or your gym to get the same effects. You need to have a secure overhead bar (ideally the same one you use for inversions) just out of arms reach to use. It is important that you can free hang without any extremities touching the ground. Try about 30 seconds worth, rest & repeat. That is about all your forearms will be able to handle. If you have ankle weight use them. This will add to gravities ability to align everything perfectly straight. While performing this drill it is also a good time to strengthen any certain muscle groups that need it through dynamic tensions. For example if you have weak abdominals squeeze them tightly the duration of your hang, it it's your gluteals, give them a strong contraction. Try rolling the shoulders back as if to pinch the shoulder blades together for 10-15 seconds if you are a slumper. You are only limited to your ambition & imagination!

Balancing "T" Position



I am continually fascinated by the many mind/body effects or rather benefits achieved from development of balance training. I write in other



texts on how balance can speed up the brains ability to decipher & process stimuli, therefore speeding up reflex ability. A new study I recently read how developing balance can actually improve I.Q. scores! Adept balance plays a role in nearly every sport imaginable when you stop & analyze it. Here's how it improved balance can improve posture. This type of whole body fine motor skill tuning if you will, creates much better communication from the brain to CNS to the body. In other words your perception of alignment & position in space at any given moment is augmented. It is also a biological fact that lack of/underdeveloped proprioception causes posture problems to develop. In addition, certain balancing acts strengthen small neglected muscles that undoubtedly effect posture in the process.

The Balancing "T" position is one such movement that while building mind/body coordination also corrects muscle imbalances. This one is by far the single best pose to master for balance & posture strengthening as well. You will consequently be toning the posterior chain from deltoid to the semitendinosus in an isometrical fashion. This exercise will require patience on your part as no one ever became a tightrope walker overnight. Don't get frustrated just stick to your guns! This movement is seen in various forms of Yoga, Tai Chi, & Gymnastics. Begin by focusing your gaze on a fixed object, step for about 3 ½ feet in a lunge reaching the arms out. Try to stand as tall as you can while sucking the gut in & arms are up by the ears. Be sure to keep the neck in straight alignment as the head will want to dip down. Now lift the back leg up until it is parallel with the torso. Lock the knees & elbows out, keep the hips square, & squeeze the all the muscles you can. Make a goal to hold this pose for 30seconds on each leg. Perform this balanced "T" everyday!



Book Balance

This is a simple drill to practice for 10-15 minutes daily that is common practice among models. It will cause the body to straighten & balance in all directions. Simply place a thick, hard covered book that is slightly larger than your heads diameter on top of your head. Walk around and try to do simple daily tasks for a few min. It will very difficult at first but the good thing is it will force muscle memory & good posture habits. If the head & spine aren't constantly in perfect alignment the book will drop. Aside from the balancing act this is also good because the weight on top of your head causes you to “lift” against it as well developing some alignment muscles. Take care not to turn into a stiff neck, I mean when a situation calls for you to turn your head, do it. Avoid the temptation to turn at the waist. This is especially good for those with a forward head & hunching.

Poor Flexibility

Flexibility can be defined as the ability to move any certain joint through full range of motion. Our aim is to achieve whole-body movements without restrictions. Poor flexibility, or tightness of the muscles is simply the inability of the muscles & tendons to move that particular limb through is full ranges of motion. Limits in joint range suppleness are usually do to overworking muscle groups, poor nutrition habits (typically electrolytes like magnesium, potassium, & calcium), poor work out/lifting habits, etc. This lack of flexibility causes muscles to be more injury prone, unable to relax, & yes of coarse posture problems. Improvements made will allow you shorter warm up & recover times from workouts, increased strength levels, greater agility, & even improvements in circulation.

Tight muscles inhibit the contractile strength of weak ones, limiting the



power they will be able to produce. Kind of like trying to race a high horse powered car with 1 foot on the brake! Once you balance this, the body will move in a much more graceful, streamlined manner. Your body will save energy as it will be more economical in motion & you will increase your overall power & endurance as a result.

You see, if the anterior chain muscles are constantly worked out with bench press & sit ups routines, those muscles will maintain a state of tension. They need to be stretched out through full range of motion. I'm not saying you have to turn into Gumby or Stretch Armstrong but with a little daily practice you can dramatically improve your stretching range & ability, thereby improving posture. The idea time to stretch out is AFTER, not before strength & conditioning exercises despite the sad fact that you will see many people doing this anyway.

There are 3 commonly practiced ways to stretch out. Static, Ballistic, & Isometric. Static stretching is a slow controlled "hold" in a position near or just past the point of current peak range. This method is by far the most commonly practiced way of improving flexibility. So for example you would reach down to touch the toes as far as you can, then... hold... hold... hold. It's going to be uncomfortable at first especially if you're trying to do this without the muscles being adequately warmed. To get the best out of this you need to maintain your position for at least 20 seconds & seek to increase the reach each stretching session.

Ballistic stretches are performed with more speed of motion. Actually you "bounce" yourself in & out of the range you desire to increase. Up until recent times this method was deemed unsafe as you could pull muscle sinew. Now research has shown us this mode of stretch is much more effective & safer than once thought. In fact if you are a rehearsed static stretcher (most yogis, martial artists, & gymnasts are) that has hit a plateau you should be able to easily "bounce" your way through sticking points!



Isometric stretches are also known as PNF. Proprioceptive Neuromuscular Facilitation. Big word, but easy to do. PNF is proven to be the fastest way to gain pliable, lasting range of motion. Plus what I like most about this method is you get muscle strength & tone while you stretch out! To do this you'll have to statically stretch a muscle group, then contracting the muscle group isometrically while in a stretched position, hold the contraction phase for 10 seconds, then relax the muscle group for a few seconds. And finally increasing the stretch range, again passively for a 20 second count.

In the following chapter we'll go through detailed description & illustrations of stretch positions as well as what they will help with. It's up to you to decide which method of stretching to use for eliminating tight muscles & posture alignment. It is ideal to stretch out no less than 3 times a week & okay to as much as 7 days a week. Let me just say this, experiment with all of them 1st & find out which you like to do best, as well as what works best for you. The truth of it is the type that you like to do, are the ones you'll stick with & keep doing!

Sleeping Posture

Considering the fact we spend around 33% of our life lying down on a bed it is very important we use correct sleeping posture to promote correct posture in everyday life.

The main culprits of incorrect sleeping posture are soft or hard mattresses and incorrect fitting pillows. If your mattress is too soft the spine will have no support and sink into the mattress. If the mattress is too hard the spine may be forced into an unnatural position. The perfect mattress should be firm with enough give to allow the spine to lay in its correct anatomical position.

Pillows are also very important for correct neck and upper spine



posture. If a pillow is too small and the mattress too soft your head may sink into the mattress and stretch the neck backwards. If your pillow is too large your neck will be stretched forward. A correct mattress should be contoured to your neck to support it in a horizontal position.

Sleeping On Your Back

Laying on our back is an unnatural sleeping position that leaves the spine at the mercy of your mattress. If your mattress is not up to scratch then I suggest you buy a new one or try sleeping on your side. While sleeping on your back you will require a quality contoured pillow as well as a wedge pillow under the knees to align the spine & properly relieve lumbar pressure.

Sleeping on your side

Sleeping on your side is a far more natural position for the spine as the body can adapt its shape to maintain a comfortable sleeping position and spine. But even so, if your mattress is too soft or your pillow too big this position will still suffer. I suggest when sleeping on your side to tuck a thin pillow between your knees - to maintain a horizontal spine - and use a contoured pillow to maintain a straight neck.



Exercise Descriptions

In this final section we are going to learn the exact resistance/strengthening & stretching methods to use to reverse the posture conditions we have described in the beginning. Most of the methods I will describe are designed for the novice & are intended to be done with easy access equipment or calisthenics. This is to accommodate the majority who may not have access to machines & such free-weights. Obviously any experience lifter with knowledge of such can easily modify the routines to better available equipment. Don't, however, let that underscore the efficacy of the exercises I have laid out as with most of them you can make very significant strength gains with. All exercises are aimed at being corrective with regards to imbalances. After a short period of time those imbalances will be altered & it will be time to adapt a full body stretching & resistance regiment to maintain the equilibrium. Some of the methods mentioned consist of utilizing isometric contractions. This isn't the same hokey "get muscle bound fast" Charles Atlas non-sense rehashed. Much research & results in isometrics have been done. The facts are that you can build functional strength fast using these tactics. Don't starve your results by neglecting to use them.



Neck Roll/Stretch



Refer To Video Library For Step-By-Step Video Demonstration

The neck roll is exactly what it is. You will be able to locate and knead out where your muscle tightness is by feeling the tension & limited range of motion. Begin to slowly roll the head in either direction for a 5 count, then back the opposite direction. Now, onto the stretching. First let's rotate the head to the extreme left as if you're trying to look over the shoulder. It is important that you try to turn as far as you are capable of in order to achieve a stretch & thereby increase range of motion. Once you are at the peak of your rotation, place the left hand on the chin & the right on the temple and push a little further. Hold this position for a 20 count, then repeat on the right side. The goal is to loosen muscles so try not to go playing chiropractor, and cracking /adjusting the cervical vertebrae. Next move the head down trying to touch the chin to the collar. Place 1hand at the crown of the skull & same as before push & hold for 20 seconds. For the next movement, nod the head all the way back, as far as range of motion will allow & use few fingers to push on the chin for the hold. Finally, the tilt the head to the extreme left & use the left hand to reach over top of your head & gently pull from the opposite side. Repeat this same procedure to the right & we are ready to move on!



Neck isometrics



Refer To Video Library For Step-By
Step Video Demonstration

These are multi-directional and can build strength for people with forward heads, overly tucked chin, & more. These should actually be done before the stretching & rolling of the neck as more results will be achieved when the muscles are warmed up. These next couple of exercises you will find will be quick, yet effective.

Ok, for those who hunch forward & require more development of the anterior capitis muscles to keep the head upright here's what we do: Place the palms of both hands at the base of the skull (occiput) & push firmly on the head. The idea is to fight this movement with maximum contraction of the neck muscles for 10 seconds. With this type of exercise you'll only need to do it once for the 10 second duration, just make sure it is a maximal contraction.

The next are the opposing muscles which are rarely a cause of posture problems, should be included for the purposes of muscular balance. For this simply place 1 hand on the forehead & push while opposing this force with the neck's muscles for 10 seconds.



Wall Bridge



Refer To Video Library For Step-By-Step Video Demonstration

This one will stretch and loosen up the pelvis, hip flexors, abdominal muscles, & deltoid while strengthening the lower back. If you have rounded shoulders or hunched back this stretch needs to be on your list of daily things to do. To start, find a flat wall with plenty of overhead room & no obstructions nearby. Stand about 2 ½ feet away from the wall with your back to it. Now raise the arms up at shoulder width & watch them go overhead to reach back and touch the wall. Place your hands flat & firmly on the wall. You will now be in an arched “bridge” position. To achieve the full effects of the stretch, try walking your hands down the wall as far as you can. Make sure not to cheat yourself by taking steps forward with the feet as you do this. With practice you’ll soon be able to do the complete bridge on the floor. As with the others, hold for 20seconds.



Deltoid Stretch



Refer To Video Library For Step-By-Step Video Demonstration

To overcome swayed back type afflictions it is necessary to stretch the posterior deltoid & scapula. This is rather easy to do & most will find it a rather comfortable release. We'll start with stretching the right side 1st. Begin by locating a doorsill or something to grab hold of on your left side. Reach across the torso & grab this fixture with the right hand. Next you will twist your body away towards the right side while also using the left hand to push just above the elbow. Hold, then repeat the same movement on the left side. The hand to elbow push is a common move but grabbing onto something & twisting adds a much greater effect to this stretch.

For the muscles on the front of the shoulders that are tight & out of proper balance, in such cases as kyphosis, rounded shoulders, hunching, etc., here's what I recommend. Reach both hands behind your back at about mid-point (right where the lumbar starts & thoracic vertebrae end) with palms facing each other. First touch the finger tips together, the outside edge of the hands should be touching the back. Now push the hands together until both palms touch, & push your shoulders down & back to achieve the stretch.



Toe Touch



Refer To Video Library For Step-By-Step Video Demonstration

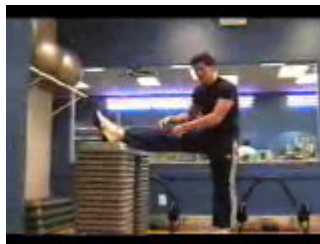
This is definitely 1 of the single greatest stretches. In 1 movement you can target the hamstrings, gluteus, spinal erectors, lats, & calves. The ideal movement to improve swayed back conditions. Stand with feet together, knees straight & bend at the waist. Reach down with both arms trying to touch the toes or better yet the floor. To increase range of motion, stand on a block or stair step & reach past the feet. Hold for 20 seconds & repeat.

Pigeon Foot Touch

This movement is virtually identical to the previous with the exception that both feet are turned inward (pointing towards each other). You'll feel more of a stretch on the outside of the calf muscles & this will improve those duck walkers!



1 Leg Hamstring Pull



Refer To Video Library For Step-By Step Video Demonstration

This stretch is designed to more specifically target the hamstrings for a better stretch than an ordinary toe touch or sit-n-reach. You'll stand on 1 leg & lift the other up onto a chair or table approximately waist level. Both the support leg & the stretched, need to be straight at the knee to gain optimal results. Next reach out & grab the foot of the propped leg with both hands & pull your head & torso down close to the knee or as far as you can manage & hold. Switch & repeat the process with the next leg.

Haunches Stretch



Refer To Video Library For Step-By Step Video Demonstration

This movement is designed to loosen up the gluteus muscles & lower back. Doing this will reduce swayed back tendencies from tight spinal



erectors & glutes. This is one you should get used to frequently dropping into when the opportunity presents itself, like standing in the elevator or a long line. Basically all you do is stand feet slightly greater than shoulder width apart, & squat all the way down below parallel on your haunches. This will remove any excessive curvature in the lumbar spine. You'll notice when kids play they can literally be in this stance for hours without a break. Ironically enough kids without congenital defects almost always have perfect posture.

Chest Expander



Refer To Video Library For Step-By-Step Video Demonstration

The chest expander drill I designed for strengthening the muscles of the upper back around the scapula like the traps, & posterior deltoid for the purposes eliminating hunching problems like kyphosis. You will need a work out band seen in many gyms & sports departments. These bands are color coded based on resistance levels from yellow being the lowest to the thick blue bands providing the most resistance. However you can simply fold one of them in $\frac{1}{2}$ or thirds to increase the difficulty. To start, stand with your back against a flat wall, push your shoulders back, & down, actually try to squeeze the shoulder blades together. Keep the head held high. Suck you stomach in. Hold the band at chest level, shoulder width apart & a firm grip in both hands. Now with 1 smooth & controlled motion stretch the band until the arms are fully opened at



180°, to the sides. Take notice of the photo from the side how my back maintains its natural curve. If the resistance is good, you should be able to do 10-15 & feel a good burn. If it's easy you'll need to make a little more tension in the bands. Note also that if you have access to a gym with cross cables you can use them but you'll need mirrors to self-correct as you probably won't be near a flat wall. I recommend 2 sets of 15 reps to see some positive strengthening.

Pectoral Stretch



Refer To Video Library For Step-By-Step Video Demonstration

In order to correct rounded shoulders we need to both strengthen the posterior deltoid & loosen up the tight muscles of the chest. For this next stretch you will need a dowel about 4 ft. in length. You can just as well improvise with any broomstick or PVC tube as well. Begin by holding the dowel in both hands overhead with a grip at 1 ½ times your shoulder's width. Then bring it down behind your head & neck as far you can. You should be able to feel the pull along the chest & biceps. Hold at peak R.O.M. To change the angle & stretch the anterior deltoid & lower pecs, start with the bar behind you at the hips & raise upwards & backwards as far as you can. Experiment with grip position (palms inward, out, & reverse grips) to as this also will slightly change the stretch.



Resistance Side Bends



Refer To Video Library For Step-By
Step Video Demonstration

The idea here is to develop some strength in the oblique muscles that run along both sides of the body's mid-section. These muscles allow for proper stabilization of the spine & torso rotation. While many gym buffs work their so called "core" to death, sadly the obliques usually get neglected. Many good methods for stabilizing the spine exist one of the easiest to understand & effective to do are side bends with any form of resistance. One method is to grab the exercise (VR) bands in 1 hand at the waist level, while stepping on the other end as an anchor. Then, proceed to bend at the hips to the opposite side which will stretch out the length of the cord, creating resistance. The same movement can be done with any given poundage of dumbbell or cable station as well. Actually many variations of this movement exist like sideways crunches for example. This movement is particularly beneficial to individuals with scoliosis.



Isometric Bridge



Refer To Video Library For Step-By-Step Video Demonstration

This is a great drill to do for building great spinal erector strength to counter-balance overdeveloped pecs & abs. This single exercise will also very effectively build strength in the gluteals, neck & hamstrings. As with many other exercises we mention, this one can be easily varied to target other muscles or the same in better ways. To do this the right way you'll need 2 solid, stable chairs & some padding. Place the chairs at a proper distance to allow your outstretched legs to prop up at the heels on 1 & the head resting on a padded chair behind you. Next drive the heels in & force the hips up until the bottom is off the ground & you look like a straight board across the 2 chairs. Hold this position for 10 seconds while squeezing every muscle in the posterior chain. Now, for some this may be a little too advanced. I understand that & that's ok! Instead of performing the full bridge, just keep 1 end on the floor & pop up to as straight as possible. On the flip side of things, for some this will be very easy. What you can do is simply add weight to the midsection in the way of anchored bands to holding onto dumbbells or even a small child sitting on your lap! As you get better at this drill you'll want to increase its benefits by using a Swiss ball on the foot end. Other options include performing the same exercise on your side or even face down if you are seeking to improve on swayed back conditions and bridging using only 1 leg propped on the chair while the other is held up freely.



Quad Stretch



Refer To Video Library For Step-By Step Video Demonstration

Its very common for the large 4 muscles of the upper leg to get way to tight, as they are the most used & strongest in the body. This will end up causing forward pelvic tilt. Stand on 1 leg, using a wall for support if need. Lift the opposite leg up behind the body & take hold of the foot (or instep) with the same sides' hand. Now pull on the foot, thus pulling the heel to touch the buttocks. Hold for 20, then extend the leg out away from the body, still holding the instep, hold for another 20. This will shift the attention to the hip flexors too. Now go & repeat the movement with the other side.

Good Morning Lift



Refer To Video Library For Step-By Step Video Demonstration

This is another simple, but effective exercise for corrective & well maintained posture. This will build strength along the spinal erectors, gluteus maximus, & the hamstring groups. Just like the side bends this



one can be done with variable increasing resistance bands, a set of dumbbells or any other weight resistance you choose. Anchor the middle section of the VR band on the floor by stepping on it. Grasp both ends in both hands, then you will bend 90 ° keeping the spine straight, head up shoulders back, chest out & lift back up to a full upright position. Another variant can be standing on the ends of the bands & looping the middle around the neck to do the lift.

Push up variations



Refer To Video Library For Step-By Step Video Demonstration

Push-ups are a very common chest & frontal shoulder developer. Also when done properly can build the abdominal core group. All branches of military use them avidly because they target a large group of muscles in a functional way & are fairly easy to learn. Readily available & require no equipment to use. Our purpose for doing them will be to develop anterior chain muscle group strength to correct problems pertaining to sway-back conditions. It used to be taught that close hand positions target more triceps & a wider than shoulder width stance to build more chest. Interestingly enough EMG scans now seem to indicate that a closer, shoulder width hand position with elbows tucked in will better target the chest & triceps while doing these. Another great thing about push -ups is how easily they can be adapted to increasing or decreasing resistance. Ok, if you are in much need of chest strength & find an



ordinary push up too hard I recommend trying them from a kneeling position. This will change the angle & amount of weight you have to push against. Shoot for 10-12 reps. Rest a minute, & try again. Each time you do strengthening exercise it is important to push past your previous best. Be it weight used or the number of repetitions you performed.

Now if you can breeze through 50 of them no problem, it's time to make 'em a bit harder. How we do this can vary. For starters there is feet elevated push-ups. The higher you elevate the legs the more resistance you will have. You can use the VR bands in each hand, spanning across the back & shoulders. You can prop the feet up on a Swiss ball to add more abdominal & oblique activity. Yet another method still would be to place the hands on an unstable surface like 2 basketballs, innervating more chest muscles in the process. If you're a regular Rocky Balboa, try 1-arm push-ups. To do this you'll need to spread the feet further apart & center the mass over the 1 arm. By now I think you see how a little imagination can take simple calisthenics like this & make it into a real muscle builder.

Abdominal variations



Refer To Video Library For Step-By Step Video Demonstration

Same with developing the rectus abdominals there are many options & variables to consider for really increasing the intensity with very simple devises. It's funny all the shams & gimmicks seen on TV designed tone the "6-Pack" that really are far from necessary. Strong abs are crucial to



posture & overall well being. Back pain & injuries are less frequent with a strong mid-section. Swayed back postures are corrected, & a general increase in athleticism is achieved as this group of muscles create the "link" for power moves from upper to lower-body. So let us take a look at a few methods we should use to strengthen them:

V-situps

It works just like it sounds, start from lying flat on your back, face up & arms outstretched overhead. Drive your heels up off the floor, while at the same time lifting your shoulders & upper back off the floor to reach the outstretched arms to touch the toes at the top. You'll now be in a "V" position. This is a great abdominal exercise to target upper & lower simultaneously with way more effectiveness than an ordinary sit-up. You can make these harder by squeezing a medicine ball or Swiss ball between the thighs, adding ankle weights as well as having a partner throw your legs down as you resist after a positive repetition. Shoot for one set of 20 reps. Work up to 20 if you can't already then begin the steps of making it more difficult.

Bicycle crunches

Begin doing these by 1st lying flat on your back, fingers laced behind your head & legs out stretched. Next in 1 motion you will lift your left leg up bending at the knee while crunching & crossing over so the right elbow touches the left knee. Lower & repeat the exact movement on the opposite side.

Ab dolly/wheel

These wheel type devises have become popular recently but have really been around for a long time. They are a very intense method for developing strength in the mid-section. You get much more strength through a full range that is missed with other methods. For beginners I recommend doing them on the knees, then progress to the feet, thus changing the leverage point. The good news is you don't have to spend



\$50-\$100 on some gimmick. Instead check out Target or Ebay for similar devices or you can even improvise with something as simple as a roller skate or skateboard. Shoot for doing 1 set of 10 reps on the wheel/dolly.

Gut Suck

This exercise is to target the transverse abdominal wall, the lining of muscles underneath the rectus abdominals commonly used in sit-ups, which plays a key role in every power movement & you can make them stronger. This group creates a "corset" if you will, around the spine & internal organs. These muscles are most commonly neglected simply because most people don't know of their existence. Interestingly enough people who actually have forward pelvic tilt, stomach sag, & even kyphosis will improve by strengthening this group alone. Suck in your stomach with a deep breath, try to imagine sucking into the spine. Hold this position for 20 seconds. Repeat 4 more times. Another variation to this is to prop your feet up on a Swiss ball while creating a bridge to where your upper-body rests on the forearms. Suck in & hold just the same. This advanced positioning will allow for greater strength gains.

Side Hip Stretch



Refer To Video Library For Step-By-Step Video Demonstration

This is a stretching movement designed to loosen up along the sides of the hip, like the gluteus medius & tensor fascia that can negatively affect the rotation of the hips & legs. This is a structural alignment



problem that definitely needs to be corrected. The side hip stretch helps to do just that. The key to this stretch being so effective is the positioning of the legs. From a standing position, what you do is cross-step to like the left side placing your right leg in front & left leg in back. The back leg needs to be straight & displaced as far behind & to the right of the right leg as you can manage. Now you'll lean away to the right & feel a nice pulling along the side of the hip. Hold this & move to the stretch the left hip doing the exact same thing. Remember to hold for 20 seconds.

Ankle Roll & stretch

The muscles that control & surround the ankles may also be a contributor to duck feet. First roll them out in a clockwise, then counter clockwise manner. 10 times in each direction. Next stand on your tip-toes & 1 at a time roll them out again in the same way. The added body weight will build muscle control & provide a better stretch. The next thing to do is roll the feet up so the instep is off the ground & weight is shifted to outside edges of your feet. This will give you a good stretch. Hold for 20 seconds. And finally from that same position push up onto the outside toes (opposite of the balls of the foot) & hold this as well.

Dorsi-Flexion

As with stretching the ankles, also it is necessary to develop the muscles that oppose the soleus in particular, but also the gastroc (calf) too. For most, it's pretty much a guarantee that you've neglected them your whole life. It's not entirely your fault though. We live in a world of paved sidewalks & such. Now if you make it a hobby of running barefoot through the uneven jungle spear hunting fleet-footed animals, I'll take



that statement back. To work these hard to target muscles I recommend getting a VR rubber band out again & anchor it to something. Sit on the floor with both legs straight out in front of you. Loop 1 end of the band around your foot & position yourself so you can create tension on the band from the end of your foot. From here if you just pull strictly upwards on the back flexing the foot you'll work the Tibialis Anterior.

Good, do that like I recommend with all the other exercises. Now you can position yourself slightly to the left of the anchoring spot of the band if use are using your left foot, now you will extend the ankle to the side or rather abduct the ankle to be correct. This movement will develop the Extensor Digitorum Longus. The next position for exercise using the same band method you will target the Flexor Digitorum. Still assuming we are working the left leg, you will position the leg slightly to the right of the bands anchor point & flex the foot inward in the same fashion. Repeat the entire process with the right leg. These drills will develop the small muscles of the lower leg quite well. The end result is that the ankles will become far more resistant to injury, your foot posture will be properly in-line, & the ability to transfer energy to the upper-body as well as change directions will be augmented.